2025-2026 Academic Catalog

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About the University

UAA Mission

The University of Alaska Anchorage (UAA) transforms lives through teaching, research, community engagement and creative expression in a welcoming environment. Serving students, the state, and the communities of Southcentral Alaska, UAA is a comprehensive, open access, public university established on the ancestral lands of the Dena'ina, Ahtna, Alutiiq/Sugpiaq, and Eyak/dAXunhyuu Peoples.

UAA Core Competencies

In 2020, UAA launched a consensus-based, deliberative process to identify the key skillsets that help students achieve academic and post-graduation success. After a year-long process that included students, faculty, staff, administrators, alumni, and employers, the UAA community identified four "core competencies" at the heart of a quality UAA education. Students develop mastery of these competencies through curricular (e.g. courses), co-curricular (e.g. internships, conferences), and extra-curricular (e.g. student clubs) learning experiences.

Effective Communication: *The knowledge and skills necessary to engage in effective communication in diverse contexts and formats.*

Creative and Critical Thinking: *The knowledge and skills necessary for the critical exploration of issues, ideas, artifacts, and events in order to creatively design, evaluate, and implement a strategy to answer complex questions or achieve a desired goal.*

Intercultural Fluency: *The knowledge and skills necessary to promote effective and appropriate interaction in a variety of cultural contexts, particularly in terms of the communities we serve.*

Personal, Professional, and Community Responsibility: *The knowledge and skills necessary to promote personal flourishing, professional excellence, and community engagement.*

Accreditation

Institutional Accreditation

The University of Alaska Anchorage (UAA) is a Member institution with the Northwest Commission on Colleges and Universities (NWCCU), and has been since 1974. UAA's accreditation status is Accreditation Reaffirmed. NWCCU's most recent action on the institution's accreditation status on January 11, 2019 was to reaffirm accreditation. This single accreditation status applies to all UAA campuses, including Anchorage, Kenai Peninsula College, Kodiak College, Matanuska-Susitna College, and Prince William Sound College, and their extended sites.

NWCCU is an institutional accrediting agency recognized by the U.S. Secretary of Education and the Council for Higher Education Accreditation (CHEA).

Accreditation of an institution of higher education by the NWCCU indicates that it meets or exceeds criteria for the assessment of institutional quality evaluated through a peer review process. An accredited college or university is one which has available the necessary resources to achieve its stated purposes through appropriate educational programs, is substantially doing so, and gives reasonable evidence that it will continue to do so in the foreseeable future. Institutional integrity is also addressed through accreditation.

Accreditation by the NWCCU is not partial but applies to the institution as a whole. As such, it is not a guarantee of every course or program offered, or the competence of individual graduates. Rather, it provides reasonable assurance about the quality of opportunities available to students who attend the institution.

Inquiries regarding an institution's accredited status by the NWCCU should be directed to UAA's Office of Academic Affairs at uaa_oaa@alaska.edu

Individuals may also contact:

Northwest Commission on Colleges and Universities (http://www.nwccu.org)
8060 165th Ave. N.E., Suite 200
Redmond, WA 98052
Phone: (425) 558-4224

Program Accreditation

When available, individual academic programs often seek verification that their program of study and student outcomes meet national standards established by independent associations or governmental agencies. That verification is documented as a program accreditation, also known as specialized accreditation. Students who complete an accredited curriculum enjoy additional confidence that experts in that field have evaluated the program and testified to its quality. Program accreditation may also enable students to more easily obtain professional certifications or registration.

The following programs have approval and/or accreditation from agencies external to UAA.

Art

Bachelor of Arts in Art; Bachelor of Fine Arts in Art	National Association of Schools of Art and Design (NASAD)

Automotive and Diesel Technology

Undergraduate Certificate in Automotive Technology; Associate of Applied Science in Automotive Technology with options in general automotive and General Motors ASEP; Undergraduate Certificate in Diesel Power Technology; Associate of Applied Science in Diesel Power Technology	ASE Education Foundation

Business Administration

Bachelors of Business Administration in Accounting; Bachelors of Business Administration in Business and Data Analytics; Bachelors of Business Administration in Economics; Bachelors of Business Administration in Finance; Bachelors of Business Administration in Global Logistics and Supply Chain Management; Bachelors of Business Administration in Management; Bachelors of Business Administration in Marketing; Bachelor of Arts in Economics; Master of Business Administration in General Management; Master of Science in Global Supply Chain Management	Association to Advance Collegiate Schools of Business International (AACSB International)

Civil Engineering

Bachelor of Science in Civil Engineering	Accredited by the Engineering Accreditation Commission of ABET, www.abet.org (http://www.abet.org), under the commission's General Criteria and Program Criteria for Civil Engineering

Clinical-Community Psychology

Doctor of Philosophy in Clinical-Community Psychology	American Psychological Association (APA)

Computer Science

Bachelor of Science in Computer Science	Accredited by the Computing Accreditation Commission of ABET, www.abet.org (http://www.abet.org), under the commission's General Criteria and the Program Criteria for Computer Science

Computer Systems Engineering

Bachelor of Science in Computer Systems Engineering	Accredited by the Engineering Accreditation Commission of ABET, www.abet.org (http://www.abet.org), under the commission's General Criteria and Program Criteria for Computer Engineering

Construction Management

Associate of Applied Science in Construction Management; Bachelor of Science in Construction Management	American Council for Construction Education (ACCE)

Culinary Arts

Associate of Applied Science in Culinary Arts	American Culinary Federation Education Foundation Accrediting Commission (ACFEFAC)

Dental Assisting

Undergraduate Certificate in Dental Assisting	Commission on Dental Accreditation of the American Dental Association (CODA)

Dental Hygiene

Bachelor of Science in Dental Hygiene	Commission on Dental Accreditation of the American Dental Association (CODA)

Dietetics

Bachelor of Science in Dietetics	Accreditation Council for Education in Nutrition and Dietetics (ACEND)

Dietetics and Nutrition

Master of Science in Dietetics and Nutrition (pre-professional track)	Accreditation Council for Education in Nutrition and Dietetics (ACEND)

Education

Graduate Certificate in Educational Leadership (K-12): Principal; Graduate Certificate in Special Education (K-12, advanced preparation track); Master of Education in Educational Leadership (K-12)	Council for the Accreditation of Educator Preparation (CAEP)
Associate of Applied Science in Early Childhood Development	National Association for the Education of Young Children (NAEYC) Commission on the Accreditation of Early Childhood Higher Education Programs

Electrical Engineering

Bachelor of Science in Electrical Engineering	Accredited by the Engineering Accreditation Commission of ABET, www.abet.org (http://www.abet.org), under the commission's General Criteria and the Program Criteria for Electrical Engineering

Geomatics

Bachelor of Science in Geomatics	Accredited by the Applied and Natural Science Accreditation Commission of ABET, http://www.abet.org, under the commission's General Criteria and the Program Criteria for Geomatics

Human Services

Associate of Applied Science in Human Services; Bachelor of Human Services	Council for Standards in Human Service Education (CSHSE)

Legal Studies

Bachelor of Arts in Legal Studies; Associate of Applied Science in Paralegal Studies; Post-Baccalaureate Certificate in Paralegal Studies	Approved by the American Bar Association (ABA)

The American Bar Association approves paralegal programs. Accreditation is reserved for law schools.

Mechanical Engineering

Bachelor of Science in Mechanical Engineering	Accredited by the Engineering Accreditation Commission of ABET, www.abet.org (http://www.abet.org), under the commission's General Criteria and the Program Criteria for Mechanical Engineering

Medical Assisting

Medical Assisting Certificate program	Commission on Accreditation of Allied Health Education Programs (CAAHEP) upon the recommendation of the Medical Assisting Education Review Board (MAERB)

Medical Laboratory Science

Bachelor of Science in Medical Laboratory Science	National Accrediting Agency for Clinical Laboratory Sciences (NAACLS)

Medical Laboratory Technology

Associate of Applied Science in Medical Laboratory Technology	National Accrediting Agency for Clinical Laboratory Sciences (NAACLS)

Music

Bachelor of Arts in Music; Bachelor of Music in Music	National Association of Schools of Music (NASM)

Nursing

Associate of Applied Science in Nursing; Bachelor of Science in Nursing; Master of Science in Nursing Science; Graduate Certificate in Family Nurse Practitioner; Graduate Certificate in Nursing Education; Graduate Certificate in Psychiatric and Mental Health Nurse Practitioner	Accreditation Commission for Education in Nursing (ACEN)
Doctor of Nursing Practice in Nursing Science	Commission on Collegiate Nursing Education (CCNE)

Paramedical Technology

Associate of Applied Science in Paramedical Technology delivered at UAA's Kenai Peninsula College, with alternate location at UAA's Matanuska-Susitna College	Commission on Accreditation of Allied Health Education Programs (CAAHEP) upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP)

More information about the above for the AAS in Paramedical Technology is available here *(*p. 656*).*

Physical Therapist Assistant

Associate of Applied Science in Physical Therapist Assistant	Commission on Accreditation in Physical Therapy Education (CAPTE)

Project Management

Master of Science in Project Management; Graduate Certificate in Project Management	Project Management Institute Global Accreditation Center for Project Management Education Programs (PMI-GAC)

Public Health Practice

Master of Public Health in Public Health Practice	Council on Education for Public Health (CEPH)

Social Work

Bachelor of Social Work; Master of Social Work	Council on Social Work Education (CSWE)

Surgical Technology

Associate of Applied Science in Surgical Technology	Commission on Accreditation of Allied Health Education Programs (CAAHEP) upon the recommendation of the Accreditation Review Council on Education in Surgical Technology and Surgical Assisting (ARC/STSA)

Other Educational Opportunities

Study Exchanges

Students are encouraged to explore educational experiences through a number of education abroad and national or international student exchange opportunities.

Students Going Abroad (http://www.uaa.alaska.edu/ed-abroad/)

Education Abroad Coordinator
(907) 786-1720

The education abroad coordinator serves out-bound students, helping them identify international education opportunities that meet their goals. Early in their studies, students should seek counsel from their academic advisors as well as the education abroad coordinator to identify programs that offer the best fit academically and personally. For more information, go to the Education Abroad website (https://www.uaa.alaska.edu/academics/office-of-academic-affairs/study-abroad/index.cshtml/).

International Exchange Students Coming to UAA (http://www.uaa.alaska.edu/international-student-services/)

Office of Admissions
Enrollment Services Center
3211 Providence Drive
Anchorage, AK 99508
(907) 786-1573

uaa.international@alaska.edu

UAA International Student Services (ISS) serves in-bound exchange students. The Office of Admissions is the liaison between the University of Alaska Anchorage, the Department of State and U.S. Immigration and Customs Enforcement agencies with the responsibility for issuing required documentation for incoming international students.

National Student Exchange (https://www.uaa.alaska.edu/students/nse/)

Eileen Moring, NSE Coordinator
Enrollment Services Center
3211 Providence Drive
Anchorage, AK 99508
(907) 786-0525

nse@alaska.edu

The National Student Exchange is a unique, not-for-profit consortium of nearly 200 accredited, baccalaureate granting colleges and universities within the United States, Canada, Guam, Virgin Islands and Puerto Rico. For more information, contact the UAA Office of the Registrar or visit the NSE website (http://www.nse.org).

Academic Programming & Support for Military & Veteran Students

Academic Programming on the Bases (https://www.uaa.alaska.edu/students/veterans/)

UAA supports military personnel and their families throughout the UAA service area through UAA Military Programs. With two locations on Joint Base Elmendorf/Richardson (JBER), UAA offers courses for active-duty, National Guard and Reserve personnel; their spouses and dependents; and Department of Defense civilian personnel.

Course offerings are designed to meet military and veteran students' academic goals, including transferable general education courses, courses that support the completion of the Community College of the Air Force degrees, and courses that apply toward a range of UAA programs. In addition, staff at both locations can assist students with enrollment in any of UAA's extensive online course and program offerings.

UAA is an ArmyIgnitEd school and participates in the Air Force Education Portal and the My Career Advancement Program offered to spouses. UAA accepts DSST and CLEP exams and evaluates military training for degree-seeking students.

Courses at Elmendorf are offered at:

JBER-Elmendorf
4109 Bullard Ave., Suite 105
JBER-Elmendorf, AK 99506

Courses at Fort Richardson are offered at:

JBER-Richardson
Building 7 Chilkoot Ave., Room 228
JBER-Richardson, AK 99505

Military and Veteran Student Services at UAA (https://www.uaa.alaska.edu/students/veterans/)

(907)786-6962
uaa_veterans@alaska.edu

Military and Veteran Student Services (MVSS) is the first point of contact at UAA for service members, veterans, and their families. In addition to connecting students to the service they need, the office directly assists students in completing military or veteran specific paperwork, using military tuition assistance and requesting evaluation of military credit, among other things.

Professional Development and Continuing Education

Professional and Continuing Education (PACE)

Professional Studies Building (PSB) 221
3211 Providence Drive
Anchorage, AK 99508
(907) 786-1933
pace@alaska.edu

Professional and Continuing Education (PACE) in the School of Education (SOE) at UAA provides flexible, high-quality learning opportunities for educators, school districts, and professional organizations across Alaska. Working directly with partners, PACE offers more than 400 courses, academies, workshops, and professional communities of practice each year. This helps deepen educators' skills, broaden their knowledge in critical areas, and advance high-quality instructional practices statewide.

Working closely with UAA academic units, school districts, professional societies, and state agencies, PACE responds quickly to emerging needs and supports long-term strategic professional development goals. Courses emphasize culturally sustaining teaching, virtual learning design, and innovative strategies to improve educational outcomes for Alaska's children and communities.

Through a new registration and records platform, UAA Continuing Studies–Genius, PACE makes it easier than ever to access 500-level professional development courses and document learning achievements. Whether you're seeking individual growth or organization-wide solutions, PACE serves as a trusted community partner and a leader in advancing professional learning.

Secondary Programs

Dual Enrollment

UAA partners with school districts throughout Southcentral Alaska and across the state to provide transformational opportunities for high school students to earn college credit, with the goals of increasing access to post-secondary education and improving overall student outcomes for the State of Alaska.

UAA's innovative approaches to dual enrollment align with national best practices, such as UAA's Middle College Schools, and they also meet immediate local needs, such as the Jump Start programs and the Certified Nurse Aid program.

UAA Campuses, Colleges, Centers and Institutes

UAA Campuses

Anchorage Campus (http://www.uaa.alaska.edu/)

3211 Providence Drive
Anchorage, AK 99508
(907) 786-1480

JBER-Elmendorf (https://www.uaa.alaska.edu/students/veterans/academic-success-centers/)

4109 Bullard Ave., Suite 105
JBER-Elmendorf, AK 99506
(907)786-7601

JBER-Richardson (https://www.uaa.alaska.edu/students/veterans/academic-success-centers/)

7 Chilkoot Ave., Room 228
JBER-Richardson, AK 99505
(907)786-7601

Kenai Peninsula College

156 College Road
Soldotna, AK 99669
(907) 262-0330 or (877) 262-0330

Kenai River Campus

156 College Road
Soldotna, AK 99669
(907) 262-0330 or (877) 262-0330

Kachemak Bay Campus

533 E. Pioneer Ave.
Homer, AK 99603
(907) 235-7743 or (877) 262-0330

Resurrection Bay Extension Site

P. O. Box 1049
Seward, AK 99664
(907) 262-0285

Kodiak College (http://www.koc.alaska.edu)

117 Benny Benson Drive
Kodiak, AK 99615
(907) 486-4161

Matanuska-Susitna College (http://matsu.alaska.edu)

8295 E. College Drive
Palmer, AK 99645
(907) 745-9774

Prince William Sound College (http://pwsc.alaska.edu/)

303 Lowe Street
P.O. Box 97
Valdez, AK 99686
(907) 834-1600

Copper Basin Extension Site

1976 Aurora Drive
P.O. Box 730
Glennallen, AK 99588
(907) 822-3673

Cordova Extension Site

100 Fisherman Avenue
P.O. Box 1248
Cordova, AK 99574
(907) 424-7598

UAA Colleges

College of Arts and Sciences (https://www.uaa.alaska.edu/academics/college-of-arts-and-sciences/)

(907) 786-1707, Fax (907) 786-4630
Dr. Jenny McNulty, Dean
Social Sciences Building (SSB), Room 335

College of Business and Public Policy (https://www.uaa.alaska.edu/academics/college-of-business-and-public-policy/index.cshtml/)

(907) 786-4121, Fax (907) 786-4131
Dr. Terry Nelson, Interim Dean
Edward and Cathryn Rasmuson Hall (RH), Room 301

College of Engineering (https://www.uaa.alaska.edu/academics/college-of-engineering/)

(907) 786-1900, Fax (907) 786-1079
Dr. Kenrick Mock, Dean
Engineering and Industry Building (EIB), Room 403

College of Health (https://www.uaa.alaska.edu/academics/college-of-health/)

(907) 786-4406, Fax (907) 786-4440
Kathy Craft, Interim Dean
Professional Studies Building (PSB), Room 205

Community and Technical College (https://www.uaa.alaska.edu/academics/community-and-technical-college/)

(907) 786-6400
Dr. Raymond Weber, Dean
Engineering & Industry Building (EIB), Room 409

School of Education (https://www.uaa.alaska.edu/academics/school-of-education/)

(907) 786-4402
Dr. Tonia Dousay, Dean
Professional Studies Building (PSB), Room 102

University Honors College (https://www.uaa.alaska.edu/academics/honors-college/)

(907) 786-4978
Dr. Ray Ball, Dean
Administration/Humanities Buildings (ADM), Room 204A

UAA Centers and Institutes

UAA's centers and institutes play an integral role in transforming lives through research that positively impacts UAA's communities, the State of Alaska, and the world. The list below reflects the breadth of expertise and contributions, as well as the extensive partnerships, sustained by UAA's centers and institutes.

Alaska Center for Rural Health and Health Workforce/Alaska's Area Health Education Center (ACRHHW/AHEC) (https://www.uaa.alaska.edu/academics/college-of-health/departments/ACRHHW/)

Alaska Center for Conservation Science (ACCS) (http://accs.uaa.alaska.edu)

Alaska Small Business Development Center (Alaska SBDC) (https://aksbdc.org)

Business Enterprise Institute (BEI) (http://www.uaa.alaska.edu/academics/business-enterprise-institute/)

Center for Alaska Education Policy Research (CAEPR) (https://iseralaska.org/caepr/)

Center for Alcohol and Addiction Studies (CAAS) (https://www.uaa.alaska.edu/academics/college-of-health/departments/population-health-sciences/caas/index.cshtml/)

Center for Behavioral Health Research and Services (CBHRS) (https://iseralaska.org/cbhrs/)

Center for Economic Development (CED) (http://www.uaa.alaska.edu/academics/business-enterprise-institute/center-for-economic-development/)

Center for Economic Education (CEE) (https://business.uaa.alaska.edu/departments/economics/cee/)

Center for Human Development (CHD) (https://www.uaa.alaska.edu/academics/college-of-health/departments/center-for-human-development/)

Environment and Natural Resources Institute (ENRI) (https://www.uaa.alaska.edu/academics/college-of-arts-and-sciences/programs/environment-and-natural-resources-institute/)

Ethics Center (http://www.uaa.alaska.edu/academics/college-of-arts-and-sciences/departments/philosophy/ethics-center/index.cshtml/)

Institute for Circumpolar Health Studies (ICHS) (https://www.uaa.alaska.edu/academics/college-of-health/departments/institute-for-circumpolar-health-studies/)

Institute of Social and Economic Research (ISER) (https://iseralaska.org/)

Justice Center (https://www.uaa.alaska.edu/academics/college-of-health/departments/justice-center/)

Montgomery Dickson Center for Japanese Language and Culture (https://www.uaa.alaska.edu/academics/college-of-arts-and-sciences/programs/montgomery-dickson-center/)

Psychological Services Center (PSC) (http://www.uaa.alaska.edu/academics/college-of-arts-and-sciences/departments/psychology/psychological-services-center/index.cshtml/)

History

The University of Alaska Anchorage traces its origins back to 1954, when Anchorage Community College (ACC) was founded. That year, ACC began offering evening classes to 414 students at Elmendorf Air Force Base—the first time that college-level courses were offered in the Anchorage area. In 1962, ACC, along with other community colleges around the state, was incorporated into the University of Alaska statewide system. Five years later, ACC began offering both day and evening classes at the current campus location. ACC provided academic study for associate degrees, the first two years of work toward baccalaureate degrees, and a wide variety of adult learning, career and continuing education programs.

In the late 1960s, strong interest in establishing a four-year university in Anchorage brought about the birth of the University of Alaska, Anchorage Senior College (ASC). While ACC administered the lower-division college, ASC administered upper-division and graduate programs leading to baccalaureate and master's degrees, as well as continuing education for professional programs. In 1971, the first commencement was held at Anchorage's West High School, where 265 master's, baccalaureate and associate degrees were awarded. ASC moved to the Consortium Library Building in 1973. The following year, when the first classroom and office facility was completed, daytime courses were offered for the first time. In 1977, ASC became a four-year university and was renamed the University of Alaska, Anchorage (UA,A). Ten years later, ACC and UA,A merged to become what is now known as the University of Alaska Anchorage (UAA).

Serving approximately 11,000 students, the UAA of today is a comprehensive, open access institution of opportunity offering a range of certificates and degrees to meet the needs of our communities and the State of Alaska.

Academic Policies and Processes

The University of Alaska Anchorage is comprised collectively of the Anchorage, Kenai Peninsula College, Kodiak College, Matanuska-Susitna College and Prince William Sound College campuses. The policies and regulations of the University of Alaska Anchorage, printed in this catalog, along with the degree and graduation requirements, apply equally to students attending any campus. The catalog is not a contract, but is intended to serve as a guide to assist students in their academic journey. The university must occasionally change or withdraw courses, or change the fees, rules or calendar for admission, registration, instruction and graduation. However, such changes will be clearly communicated to students in advance. Student Services and Advising professional staff look forward to helping each student achieve their academic and personal goals.

- Academic Standards and Regulations (p. 16)
- Admissions (p. 42)
- Advising and Academic Support (p. 49)
- Financial Aid (p. 49)
- Student Freedoms, Rights and Responsibilities (p. 52)
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Academic Standards and Regulations

- Academic Petition (p. 16)
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Academic Petition

Deviations from degree requirements must be approved by academic petition. Petition forms may be obtained online (https://www.uaa.alaska.edu/students/registrar/registrarforms.cshtml/).

All petitions requesting that transferred elective credit be accepted for degree requirements must be accompanied by catalog copy of the course description(s) from the institution of origin. It is highly recommended to include a course syllabus in the documentation. Petitioned courses, other than those from UAF or UAS, must meet transfer credit criteria for acceptance prior to final approval.

Final authority to approve or deny petitions pertaining to program or college requirements rests with the dean of the college. Petitions pertaining to General Education Requirements (GERs) and/or General University Requirements (GURs) must, in addition, be processed through the Office of Academic Affairs, with final authority to approve or deny resting with the provost. Students and the department will be notified of the decision.

Changes in course level, grading or number of credits awarded cannot be petitioned. UAA courses not on the approved baccalaureate GER list (p. 443) cannot be petitioned to meet a GER.

Academic Rights of Students

The university has the responsibility of providing a program of high-quality education in keeping with its financial resources; students have protection through campus-specific procedures against arbitrary or capricious academic evaluation. Student performance shall be evaluated solely on an academic basis, not on opinions or conduct in matters unrelated to academic standards. Students are responsible for completion of their academic program, for familiarity with all requirements of the university catalog and for maintaining an acceptable grade point average for degree requirements. Students have the right to be informed at the beginning of each term of the nature of the course, course expectations, evaluation standards and the grading system.

Academic Honesty

Academic integrity is a basic principle that requires students to take credit only for ideas and efforts that are their own. Cheating, plagiarism and other forms of academic dishonesty are defined in the Student Code of Conduct (https://catalog.uaa.alaska.edu/handbook/student-freedoms-rights-and-responsibilities/student-code-of-conduct/). Cheating, plagiarism and other forms of academic dishonesty will first go through the student conduct process and then, if a violation of the Student Code of Conduct is found, academic sanctions may occur in addition to disciplinary sanctions. The Student Conduct Review Procedures (https://catalog.uaa.alaska.edu/handbook/student-freedoms-rights-and-responsibilities/student-code-of-conduct/) are outlined in the UAA Student Handbook (https://catalog.uaa.alaska.edu/handbook/).

Academic Dispute Resolution Procedure

Challenges to academic decisions or actions of the faculty or academic administration will be reviewed according to the procedure that implements the UA Board of Regents Policy 09.03.024 (https://www.alaska.edu/bor/policy-regulations/chapter-09-03-student-dispute-resolution.php) and its University Regulation on Student Dispute Resolution: Review of Academic Decisions or Actions. Appropriate issues for this procedure include (1) final grades resulting from alleged grading errors or (2) the arbitrary or capricious assignment of final grades or (3) the arbitrary or capricious dismissal from or

denial of admission to an academic program based upon academic considerations. Academic decisions based on alleged violations of the Student Code of Conduct (https://catalog.uaa.alaska.edu/handbook/student-freedoms-rights-and-responsibilities/student-code-of-conduct/) will not be reviewed under this procedure until the Student Conduct Review Procedures are exhausted.

Definitions

Academic Decision Review Committee - An academic decision review committee is an ad hoc committee that formally reviews a contested final grade assignment, dismissal from or denial of admission to an academic program based upon academic considerations or other academic decision. The committee will be composed of three faculty members, one of whom must be from outside the college/community campus delivering the course or program, a non-voting committee chair who may be a faculty member, and a non-voting student representative. To be eligible, the non-voting student representative must be currently enrolled in at least three credits, in good disciplinary standing and have a cumulative grade point average of 3.0 or higher. The dean of the college/community campus director will appoint committee members. If the academic decision being challenged is for a graduate course or program, the faculty appointed will be from those departments with graduate programs, and the student committee member will be a graduate student.

Dean/Community Campus Director - The dean is the administrative head of the college offering the course or program from which the academic decision or action arises. For students at community campuses or taking a course from a community campus, the director of the community campus may substitute for the dean in the case that the relevant course or program is delivered by that community campus. This definition includes the designee of either the dean or community campus director.

Arbitrary or Capricious Academic Decision - An academic decision is "arbitrary or capricious" when: 1) it is not based on academic factors or criteria or accepted standards of the discipline or profession; 2) standards are not equally or fairly applied to students in relevantly similar situations; and 3) there is a substantial, unreasonable, or unannounced departure from articulated standards or criteria.

Arbitrary or Capricious Grading - An academic final grading decision is "arbitrary or capricious" when: 1) the assignment of a final course grade is on a basis other than academic performance in the course; 2) the instructor uses standards different from those applied to other students in the same section of the course; or 3) there is a substantial, unreasonable and/or unannounced departure from the course instructor's previously articulated standards or criteria (see also Grading Error).

Class Day - As used in the schedule for review of academic decisions, a class day is any day of scheduled instruction, excluding Saturday and Sunday, included on the academic calendar in effect at the time of a review. Final examination periods are counted as class days.

Final Grade - The final grade is the grade assigned for a course upon its completion.

Grading Error - A grading error is a mathematical miscalculation of a final grade or an inaccurate recording of the final grade (see also Arbitrary or Capricious Grading).

Next Regular Semester - The next regular semester is the fall or spring semester following the semester in which the disputed academic decision was made. For example, it would be the fall semester for a final grade issued for a course completed during the previous spring semester or summer session. The spring semester is the next regular semester for an academic decision made during the previous fall semester.

Procedures for Resolving Disputes Regarding Final Grade Assignment

Students may request a review of a final grade assignment on the basis of alleged grading error or arbitrary or capricious grading. Grades assigned prior to the final grade received in a course are not subject to review under this procedure. Only the course instructor or an academic decision review committee may authorize a change in the assignment of a final grade. Because grades can affect such things as a student's eligibility for continued financial aid, students should check their final grades and initiate a review, where desired, as soon as possible. The time schedule outlined in this procedure stipulates maximum time periods within which to complete stages of the review. However, permission for extensions of time may be granted, in writing, by the dean/community campus director.

Each college and community campus has designated an individual to explain the academic review process to students. The names and contact information for these individuals are posted on the college/community campus website. Students are encouraged to reach out to these individuals for assistance.

Informal Procedure for Academic Disputes Regarding Final Grade Assignment

Students will be expected to first request an informal resolution of the final grade assignment with the course instructor. The process must be initiated by the fifteenth class day of the next regular semester at UAA. The instructor must respond to the request within five class days of receipt.

If the course instructor's decision is to change the final grade, the instructor must promptly initiate the process. If the instructor does not change the grade and the student's concerns remain unresolved, the student may notify the department chair/academic leader responsible for the course. Within five class days of such notification, the department chair/academic leader must either effect resolution of the issue with the instructor or inform the student of the process for requesting a formal review of the final grade assignment.

If the course instructor is no longer an employee of the university or is otherwise unavailable, the student must notify the department chair/academic leader of their request for informal resolution of the final grade assignment by the fifteenth class day of the next regular semester. Within five class days of notification by the student, the department

chair/academic leader must either effect resolution of the issue through contact with the course instructor or inform the student of the process for requesting a formal review of the final grade assignment.

Formal Procedure for Academic Disputes Regarding Final Grade Assignment

If the student's concern remains unresolved through the informal procedures above, the student may request a formal review of the final course grade assignment. A student formally requesting a review of a final grade assignment must submit to the dean/community campus director: a completed and signed request for formal review form, an explanation of the basis for requesting a change of grade, and supporting documentation. The request must be filed by the twentieth class day of the next regular semester or within five class days of receipt of notification of the process for filing a request for a formal review by the department chair/academic leader after completion of an informal review. The only exception will be when written permission for an extension of time is granted by the dean/community campus director.

After establishing that informal procedures have been followed, that the request for formal review falls within the required deadlines, and that this is the first request for formal review of this issue, the dean/community campus director will convene an academic decision review committee and forward to it the completed and signed request for formal review form, the explanation of the basis for requesting a change of grade, and supporting documentation from the student. The committee chair will convene the committee within ten class days of receipt of the student’s written request for review. The committee will first consider whether the facts submitted by the student warrant a formal review meeting.

The committee may dismiss the student's request without conducting a formal review meeting if the facts as presented clearly do not constitute a case of arbitrary or capricious grading or grading error. This decision will constitute the final decision of the university. The committee’s decision will be provided in writing by the committee chair to the student, the course instructor, the department chair/academic leader, and the dean/community campus director. The dean/community campus director will maintain the decision letter, along with the documents submitted by the student and will send a copy of the decision letter to the provost.

Academic Decision Formal Review Meeting

If the academic decision review committee determines that the facts as presented might constitute arbitrary or capricious grading or a grading error, the committee will proceed to a formal meeting. The committee will consider information provided by the student, the course instructor, and others as it sees fit. Both the student and the instructor will have an opportunity to present the facts as they understand them.

Formal review meetings will ordinarily be scheduled between five and ten days after the academic decision review committee determines that a formal review is warranted. The student and the course instructor must be notified in writing at least three class days in advance of the time and place the request will be considered and of the process to be followed. Formal review meetings will normally be closed. Requests for an open proceeding must be made by a party to the committee chair prior to the start of the meeting. Such requests will be granted to the extent allowed by law unless the committee chair determines that all or part of a proceeding should be closed based upon considerations of fairness, justice, and other relevant factors.

The university cannot guarantee confidentiality, however, as a reasonable effort to preserve the legitimate privacy interests of the persons involved, all participants in the proceedings will be expected to maintain confidentiality.

A party may choose a supporter to be present at all times during the proceedings. However, the supporter may not speak on behalf of the party. The committee may direct that witnesses, but not the parties or their supporters, be excluded from the meeting except during their testimony. Should the student or instructor fail to appear at the formal review meeting, the meeting may proceed in their absence. The student or instructor may submit a written statement, if they cannot attend the meeting.

The deliberations of the committee will be closed to the public, the parties, and their advisors.

Academic Decision Review Committee Decision

The academic decision review committee proceedings will result in one of the following determinations for reviews of final grade assignments:

- the request for a grade change is denied;
- the request for a grade change is upheld and the committee requests the course instructor to change the grade and the course instructor changes the grade; or
- the request for a grade change is upheld and the course instructor is either unavailable to change the grade or refuses to do so. The committee directs the dean/community campus director to initiate the process to change the grade to that specified by the review committee.

The decision of the review committee constitutes the final decision of the university. The committee chair will provide the decision in writing to the student, the course instructor, the department chair/academic leader and the dean/community campus director. The meeting will be recorded and the committee chair will be responsible for the preparation of a written record of the meeting and will submit it to the dean/community campus director. The dean/community campus director will maintain the decision letter and the written record of the meeting, and will send a copy of the decision letter to the provost.

Unless an extension has been granted by the dean/community campus director, disputes concerning final grades must be completed by the end of the next regular semester following the assignment of the final grade.

Procedures for Resolving Disputes Regarding Denial of Admission to or Dismissal from a Program of Study for Academic Reasons

Students may challenge a denial of admissions to, or dismissal from, a program of study for academic reasons on the basis that the academic decision was arbitrary or capricious. Students will be expected to first request an informal resolution with the department chair/academic leader regarding denial of admission to or dismissal from a program of study for academic reasons. The process must be initiated by the fifteenth class day of the next regular semester. The department chair/academic leader must respond to the request within five class days of receipt, and, if there is not a resolution of the issue, inform the student of the process for filing a request for formal review.

If the student's concern remains unresolved through the informal procedures above, the student may request a formal review of a denial of admission to or dismissal from a program for academic reasons. The student must provide the dean/community campus director a signed, written request for a formal review, indicating the basis for requesting a review. The request must be filed by the twentieth class day of the next regular semester, or within five class days of receipt of notification of the process for filing a request for formal review after completion of any informal review. The only exception will be when written permission for an extension of time is granted by the dean/community campus director.

An academic decision review committee will conduct a formal review meeting for academic decisions regarding denial of admission to or dismissal from a program for academic reasons. The committee will consider information provided by the student, the department chair/academic leader and others as it sees fit. The process will follow the same timelines and procedures for academic disputes regarding final grade assignment with the following exceptions:

1. The chair will submit the written findings and recommendations of the academic decision review committee along with the written record of the meeting to the dean/community campus director for consideration. At the same time a copy of the findings and recommendations will be provided to the student.
2. The student will be given an opportunity to comment on the findings and recommendations of the committee. The student must submit written comments to the dean/community campus director within seven class days of the day the committee findings and recommendations are sent to the student.
3. The dean/community campus director will review the written findings and recommendations of the academic decision review committee, the record of the formal review meeting and any written comments submitted by the student and make a decision. The dean's/community campus director's decision will constitute the final decision of the university on the matter and will be provided, in writing, to the student, the department chair/academic leader and the committee. The dean/community campus director will maintain the decision letter and written record of the meeting, and will send a copy of the decision letter to the provost.
4. The provost will make the final decision of the university on the matter if the dean/community campus director is the person who made the academic decision under review.

Unless an extension has been granted by the dean/community campus director, final decisions must be completed by the end of the next regular semester following the date of the denial of admission to or dismissal from a program for academic reasons.

Other Academic Decisions

Students with concerns relating to other academic decisions should refer to the dean/community campus director of the academic unit that delivers the course or program.

Disputes regarding decisions associated with appropriate academic adjustments and programmatic accommodation for students with disabilities will be reviewed according to procedures set forth in University Regulation 09.06.050 (https://www.alaska.edu/bor/policy-regulations/chapter-09-06-services-students-disabilities.php) Services for Students with Disabilities.

Eligibility for Services Pending Final Decision in the Academic Decision Review Process

During the review of an academic action or decision by the university, the action or decision being contested will remain in effect until the dispute is resolved. If an academic action or decision affects the student’s eligibility for financial aid, housing, or other university service, the student will be informed by the dean/community campus director of the steps to be taken that may maintain or reinstate the affected service. The student will be responsible for initiating any necessary actions or procedures.

Academic Standing

Good Standing

Undergraduate students are in good standing when they have a UAA cumulative grade point average (GPA) of 2.00 or higher and a semester GPA of 2.00 or higher for the most recently completed semester. Individual departments may establish additional criteria for good standing. Students are presumed to be in good standing during their first semester at UAA. Students in good standing are academically eligible to re-enroll at UAA.

Academic Action

Admitted certificate, associate, or baccalaureate degree-seeking students who fail to earn a UAA semester and/or cumulative GPA of 2.00 will be subject to academic action. Academic action may result in warning, probation, continuing probation or loss of certificate or undergraduate degree-seeking status. Individual departments may establish additional criteria for departmental academic action. Failure to meet or maintain these criteria may result in departmental probation or removal from a major program.

Warning

Academic warning is the status assigned to those students whose semester GPA falls below 2.00 but whose cumulative GPA is 2.00 or higher.

Probation

Placed on probation is the status assigned to those students whose semester and cumulative GPA falls below 2.00.

Continuing Probation

Continuing probation is the status assigned to those students who begin a semester on probation and during that semester earn a semester GPA of 2.00 or higher without raising their cumulative GPA to 2.00. This status may be continued until the student raises their cumulative GPA to 2.00 or loses their certificate or undergraduate degree-seeking status.

Academic Disqualification

Academic disqualification is the status assigned to those students who begin a semester on probation or continuing probation and fail to earn a semester GPA of 2.00 or higher. Those students' admission status will be changed to inactive and they will not be allowed to attend UAA for one academic (fall or spring) semester, including summer term if applicable. After non-attendance for either fall or spring semester, the student may complete the process for reinstatement.

Reinstatement

An academically disqualified student may submit a request for reinstatement after not attending UAA for one academic (fall or spring) semester. The student should complete a form for reinstatement that includes a plan for academic success. This form must be reviewed by an academic advisor. Completed reinstatement forms must be submitted to the Office of the Registrar at least 4 weeks prior to the first day of the semester for which a student wishes to be reinstated. An academically disqualified student must successfully be reinstated within two years of disqualification or they will need to reapply for admission.

Following reinstatement, the student will remain on probation and be required to meet with an advisor prior to registering for classes until their cumulative GPA is 2.0 or above. Students must achieve a semester GPA of 2.0 or above for each term. Students who are reinstated who do not achieve a semester GPA of 2.0 or higher will again be disqualified and will not be allowed to attend UAA for one academic year.

Departmental Probation or Removal from a Major Program

Individual departments may establish additional criteria for departmental academic action. Failure to meet or maintain these criteria may result in departmental probation or removal from a major program. Those students' major program will be changed to exploratory. Students will remain in a certificate or undergraduate degree-seeking status as long as the university's minimum academic standards are met. Exploratory students must use the Change of Major Form and process to request re-admission or admission to a new program. Forms are available online on the Office of the Registrar website.

Academic Fresh Start

Academic Fresh Start offers undergraduate students who experienced significant academic challenges the opportunity to return to UAA and begin their college journey anew. Students who have stopped out for more than two years, withdrawn from the university, or were academically disqualified may apply for readmission and request that their entire prior academic record be disregarded. Students who qualify for Fresh Start are able to begin their college journey anew with no credits attempted or earned, and no quality points reflected in future GPA or Latin Honors calculations. Students are eligible for Academic Fresh Start if the following applies:

- At least two years have passed between the semester(s) in question and enrolling as a Fresh Start student
- No Academic Fresh Start or Academic Renewal has been previously granted

Qualifying students must work through the Advising Director for their College or Campus to submit the Academic Fresh Start form to the Registrar's Office. All courses remain on the student's transcript but are noted with "E" indicating exclusion from the student's overall GPA and Latin Honors calculations. Academic Fresh Start only applies to UAA credits, and students who have already graduated cannot apply for Fresh Start. There are no restrictions regarding whether or not a student may attempt to earn credit by exam or portfolio or other nontraditional credit means relative to the credits that have been disregarded.

Academic Renewal

Academic Renewal offers undergraduate students who experienced significant academic challenges while enrolled in their program the opportunity to renew their GPA by requesting that one semester or two consecutive semesters be "renewed." Academic renewal means that all renewed credits will be excluded from future GPA and Latin Honors calculations. If the student passed a course during a renewed semester, the course may still be used for admission and major or degree requirements. Grades received as a result of disciplinary sanctions (e.g. academic dishonesty) are not eligible for Academic Renewal. Students are eligible for Academic Renewal if the following applies:

- At least one year has passed between the semester(s) in question and the renewal request
- Have earned at least 9 credits since the semester(s) in question
- No Academic Fresh Start or Academic Renewal has been previously granted

Qualifying students must work through the Advising Director for their College or Campus to submit the Academic Renewal form to the Registrar's Office. All courses remain on the student's transcript but are noted with a different grade specific to Academic Renewal (A=ARA, B=ARB, C=ARC, D=ARD, F=ARF) indicating exclusion from the student's overall GPA and Latin Honors calculations. Academic Renewal only applies to UAA credits, and students who have already graduated cannot apply for Renewal. There are no restrictions regarding whether or not a student may attempt to earn credit by exam or portfolio

or other nontraditional credit means relative to the credits that have been excluded.

Academic Eligibility for Student Activities

Students with satisfactory academic performance are eligible for participation in intercollegiate competition or co-curricular activities. Students may not participate in intercollegiate competition or co-curricular activities or student employment if their cumulative GPA falls below 2.00. Additional and higher academic standards may be required for certain activities. Students are advised to keep their participation in activities outside the classroom within limits that will allow them to achieve satisfactory academic performance.

Honors Lists

Admitted undergraduate degree/certificate-seeking students maintaining exceptional academic achievement are recognized after the fall, spring or summer semesters on the Dean's List and the Chancellor's List. Names of students on the Dean's List and the Chancellor's List will be released unless a student places a directory hold on their record.

Dean's List

To be eligible for the Dean's List, a student must be an admitted undergraduate degree/certificate-seeking student enrolled in at least 12 UAA credits graded with academic letter grades and must have earned a GPA of at least 3.50 for the semester. Regardless of the number of credits a student is enrolled in, a NB (no basis) grade or temporary grades of I (incomplete) or DF (deferred) will prevent a student from being eligible for the Dean's List.

Chancellor's List

To be eligible for the Chancellor's List, a student must be an admitted undergraduate degree/certificate-seeking student enrolled in at least 12 UAA credits graded with academic letter grades and must have earned a GPA of 4.00 for the semester. Regardless of the number of credits a student is enrolled in, a NB (no basis) grade or temporary grades of I (incomplete) or DF (deferred) will prevent a student from being eligible for the Chancellor's List.

Catalog Year

Each student's term of admission/catalog year is established when the student is formally admitted as a certificate- or degree-seeking student. This includes students admitted into pre-major status. A student's term of admission/catalog year is adjusted if the student formally postpones admission or reapplies after formal admission expires.

Certificates and Associate Degrees

Students may elect to graduate under the requirements of any catalog in effect during the five years after formal acceptance to a certificate or associate degree program.

If the requirements for a certificate or associate degree are not met within five years of formal acceptance into the program, admission expires and the student must reapply for admission.

Baccalaureate Degrees

Students may elect to graduate under the requirements of any catalog in effect during the seven years after formal acceptance to a baccalaureate degree program. However, a course satisfying a particular General Education Requirement (GER) in the semester in which it was completed will continue to satisfy that GER for that student even if its status has changed in the catalog under which the student graduates.

If the requirements for a baccalaureate degree are not met within seven years of formal acceptance into the program, admission expires and the student must reapply for admission.

Class Standing

Class standing is an administrative classification and does not necessarily reflect progress toward completion of a degree. Class standing is based on total credits earned and is used for determining priority registration. Undergraduate degree-seeking students are classified as follows:

Class Standing	Credits
Freshman/First Year	0-29
Sophomore/Second Year	30-59
Junior	60-89
Senior	90+

Transfer students will be assigned class standing based on the number of credits accepted in transfer by the university. Non-degree-seeking students are not assigned a class standing.

Course Information

Contact Hours

UAA academic policy has established the following minimum contact times. Most lecture/discussion courses require a minimum of 750 minutes of contact time and a minimum of 1,500 minutes of course-related work completed outside the classroom to award 1 credit. Some courses require more than 750 minutes of contact time and more than 1,500 minutes of course-related work completed outside the classroom.

One contact hour is defined as 50 minutes of contact time per week in a 15-week semester.

Courses may not be offered for more than 1 credit each week.

One continuing education unit (CEU) may be granted for satisfactory completion of 10 contact hours of classroom instruction or for 20 contact hours of laboratory or clinical instruction.

Alternative learning modes are subject to the instructional objectives and outcomes of comparable, traditionally taught courses, but contact hour standards may differ.

Contact hours are expressed by "x+y" where the x equals the course's lecture contact hours per week and the y equals the course's lab contact hours per week. Contact hours are calculated based on a 15-week

semester. All courses must meet for 15x + 15y contact hours regardless of the number of weeks in which the course is offered.

Course Numbering System

Each course offered by the university is defined by the subject designator, a campus designator, and a three-digit course number. The subject designator commonly abbreviates the name of the discipline or department (for example, COMM for Communication). In general, the first numeral of the three-digit course number indicates the year in which the course is ordinarily taken. For example, COMM A111 is ordinarily taken by first-year students and COMM A305 is taken by third-year students.

Advances in course level (lower, upper and graduate) correlate with sophistication of academic work. It should be noted that some students find introductory courses more demanding than advanced, specialized courses. In such courses, a more comprehensive approach and the first exposure to new ways of thinking may be harder for some individuals than covering a smaller, more familiar area in much greater detail.

The following definitions describe the types of courses that can be expected at each level:

Noncredit Courses

A001–A049: Noncredit courses. Offered as career development, continuing education or community interest instruction. Not applicable to any degree or certificate requirements (even by petition). They have no regular tuition but do have other special fees. There is a special registration process for these courses. Please see the Continuing Education (https://www.uaa.alaska.edu/academics/continuing-education/index.cshtml/) website for more information.

AC001–AC049: Continuing education unit (CEU) courses. CEUs are awarded upon completion of a course of study that is intended for career development or personal enrichment. CEU courses may not be used in degree or certificate programs or be converted to academic credit (even by petition). The number of CEUs awarded is related to the amount of time required to master the material presented, with one CEU typically awarded for 10 hours of active participation in a directed learning environment with an instructor available, or for 20 hours of laboratory or experiential learning where the student's investigation and discovery is largely independent. The number of CEUs awarded is determined by the chief academic officer (dean or director) of the offering unit. Fractional CEUs may be awarded. There is a special registration process for these courses. Please see the Continuing Education (https://www.uaa.alaska.edu/academics/continuing-education/index.cshtml/) website for more information.

Preparatory/Developmental Courses

A050–A099: Courses with these numbers provide basic or supplemental preparation for introductory college courses. They are not applicable to certificates or associate, baccalaureate or graduate degrees, even by petition.

Academic Credit Courses

Courses with the following numbers count toward undergraduate and graduate degrees and certificates as described below. Each course includes a component for evaluation of student performance. Student effort is indicated by credit hours. One credit hour represents three hours of student work per week for a 15-week semester (e.g., one class-hour of lecture and two hours of study or three class-hours of laboratory) for a minimum of 750 minutes of total student engagement, which may include examination periods. Equivalencies to this standard may be approved by the chief academic officer of the university.

The numbering sequence signifies increasing sophistication in a student's ability to extract, summarize, evaluate and apply relevant class material. Students are expected to demonstrate learning skills commensurate with the appropriate course level and to meet prerequisites for all courses as listed within the course descriptions. Academic credit courses are numbered as follows:

Lower-Division Courses

Lower-division courses are usually taken by freshmen and sophomores.

A100–A199: Freshman-level, lower-division courses. Introduce a field of knowledge and/or develop basic skills. These are usually foundation or survey courses. Applicable to certificates, associate degrees and baccalaureate degrees in accordance with certificate and degree requirements.

A200–A299: Sophomore-level, lower-division courses provide more depth than 100-level courses and/or build upon 100-level courses. These courses may connect foundation or survey courses with advanced work in a given field, require previous college experiences or develop advanced skills. Applicable to certificates, associate degrees and baccalaureate degrees in accordance with certificate and degree requirements.

Upper-Division Courses

Upper-division courses are usually taken by juniors and seniors. Upper-division courses require a background in the discipline recognized through course prerequisites, junior or senior standing, or competency requirements. These courses demand well-developed writing skills, research capabilities and/or mastery of tools and methods of the -discipline.

A300–A399: Junior-level, upper-division courses build upon previous coursework and require familiarity with the concepts, methods and vocabulary of a discipline. They are applicable to baccalaureate degrees and may be applicable to associate degrees in accordance with degree requirements. These courses are not applicable to graduate degree requirements.

A400–A499: Senior-level, upper-division courses require the ability to analyze, synthesize, compare and contrast, research, create, innovate, develop, elaborate, transform, and/or apply course material to solving complex problems, and generally require a substantial background of study in lower-level courses.

These courses are applicable to baccalaureate degrees in accordance with degree requirements. These courses may be applied to graduate requirements for some master's degrees with prior approval of the student's graduate study committee. However, except as approved for

an accelerated master's degree, a student may not apply a course to both a baccalaureate and a graduate degree.

Transfer Courses

A1_–A4_: UAA awards credit in all General Education Requirement (GER) areas for courses that do not match specific course descriptions but meet the learning outcomes of each area's definition, e.g., A1W fulfills the 100-level Written Communication Skills GER. The last letter(s) on a transfer course number (A#_) identifies the GER category it fulfills.

Code	Description
F	Fine Arts
H	Humanities
IC	Integrative Capstone
N	Natural Sciences Lecture only
NL	Natural Sciences Lab only
NS	Natural Sciences Lecture/Lab
O	Oral Communication Skills
Q	Quantitative Skills
S	Social Sciences
W	Written Communication Skills

Courses transferred in that do not have a direct equivalency and do not meet the general education learning outcomes for a specific GER area are assigned as departmental electives with indication of level and subject, e.g. WRTG A2 Departmental Elective.

Graduate-Level Courses

A600–A699: Graduate-level courses require a background in the discipline and an ability to contribute to written and oral discourse on advanced topics in the field at a level beyond that required by a bachelor's degree.

These courses demand rigorous analysis, synthesis and research skills, and require the ability to read, interpret and evaluate primary literature in the field. Students analyze raw data, evaluate models used in research and draw independent conclusions. Preparation includes demonstrated accomplishment in a specific course or discipline, or completion of a significant and related program of study. Student activities are often self-directed and aimed not only at the formation of supportable conclusions but also at a clear understanding of the process used in those formations.

These courses are applicable to post-baccalaureate and graduate certificates, and master's and doctoral degrees in accordance with degree requirements. With prior approval of the major department, they may be used to meet degree or graduation requirements for some baccalaureate degrees, but a student may not apply a course to both a baccalaureate and a graduate degree.

Professional Development Courses

A500–A599: Courses with these numbers are designed to provide continuing education for professionals at a post-baccalaureate level. These courses are not applicable to university degree or certificate program requirements, are not interchangeable with credit courses, and may not be delivered simultaneously (stacked) with academic credit courses of similar content (even by petition).

These courses may be graded pass/no pass or, if the course includes an evaluation component, letter grading. The measurement of student effort is indicated by professional development credits. Each professional development credit awarded requires at least 12.5 hours of student engagement in a directed-learning environment under the supervision of a qualified instructor. These courses are provided on a self-support basis.

Course Number Second and Third Digits

The following second and third digits of course numbers are used for specific types of academic courses:

Code	Description
-90	selected topics
-92	seminars and workshops
-93	special topics courses, to be offered only once
-94	trial (experimental) courses intended to become permanent
-95	internships, practica, community-based learning or cooperative education
-97	independent studies
-98	individual research courses
-99	thesis courses

Prerequisites

Students are expected to meet prerequisites for all courses. Prerequisites are listed with the course description and indicate the preparation and/or background necessary to undertake academic study. Unless otherwise noted, a passing grade is required in order to satisfy the prerequisite. If a student has not met the necessary prerequisites, the student may request permission from the instructor of the course to enroll in the class. It is the responsibility of the department to enter the appropriate override codes that will allow the student to register. A faculty member may withdraw students who enroll without prerequisites or faculty permission.

Corequisites

Corequisites are courses that must be taken concurrently. Students are responsible for enrolling in and attending all corequisite courses in the same semester. Corequisites are listed in the individual course descriptions. A faculty member may withdraw students for not enrolling in the appropriate corequisite(s).

Repeatable Courses

Some courses, such as selected topics, may be taken more than once for additional credit. Only courses explicitly noted as repeatable for additional credit in the course description qualify for this option.

Retaking Courses

Any course for which a student has received a transcripted grade may be retaken at the student's discretion if the course is available and if permitted by the program offering the course. The student's transcript will reflect all grades earned by the student in each semester in which the course is taken. Only the last chronological grade and credit(s) earned are applied toward graduation requirements, prerequisite fulfillment and the cumulative UAA grade point average (GPA). Courses for which a student has already received a passing grade may not be eligible for financial aid.

The credit/no-credit grading option cannot be selected when courses are being retaken for GPA improvement. Students may not retake a course through credit-by-examination or through work at another college or university for the purpose of raising their GPA at UAA.

Registration Restrictions

In addition to prerequisites, registration restrictions are conditions a student must meet before enrolling in a course. Examples include, but are not limited to, admission requirements, special approval, level requirements, and special licenses or credentials.

Special Notes

In addition to prerequisites and registration restrictions, special notes may describe other qualities and expectations about the course that may impact student success. Special notes include, but are not limited to, additional information about the academic environment, degree planning or repeatability options.

Practical Training Courses

Practical training courses provide experiential learning opportunities for UAA students and include a range of options, including internships, practica, field study, clinicals, and other on-the-job training and guided learning opportunities. They are regular curricular offerings with individual course descriptions, student learning outcomes and course outlines that are controlled and managed by the university. These courses are led and supervised by assigned faculty who meet and/or interact with registered students on a weekly basis at scheduled or arranged times. Each practical training course includes components for evaluation of student performance defined by the institution. Student effort is indicated by credit hours similar to other academic credit courses offered by the university. The terms of each practical training course are approved through the university's formal curricular process and are consistent with the number of credit hours and grading system associated with the course number and subject under which each course is offered. Practical training courses are fully accredited and count toward undergraduate and graduate degrees and certificates.

Internships

An internship is a student work experience in which the employer or agency is the student's immediate supervisor, is active in planning the expected outcomes and is involved in the evaluation of the student's achievements. A faculty member must act as instructor and approve the work activities, the student learning outcomes and the evaluation method. The instructor reviews all of the final documents upon completion of the assignment and assigns the final grade.

Internships require that the student completes a minimum of 45 hours of work with the employer for each credit earned. Final course grades are generally based on hours worked, outcomes achieved, employer and instructor ratings of work performance, and evaluation of required journals or reports. Registration deadlines follow independent study and directed study dates.

Practicums, Clinicals & Other Field Placements

A practicum, clinical or other field placement is a student work experience for which the academic department establishes the objectives and outcomes. The instructor facilitates, monitors and evaluates student accomplishments, and assigns the final grade. Registration deadlines follow independent study and directed study dates.

Requirements and General Information

Many academic programs require completion of a practicum, clinical assignment or other field placement. Before applying to such programs, students should familiarize themselves with the requirements for such placements, which may include infectious disease testing, drug testing, criminal background checks or other qualifications. Students are responsible for ensuring that there are no legal or other impediments to their acceptance into a placement.

Criminal History

Placements in facilities with programs administered by the state of Alaska Department of Health and Social Services are subject to background checks under state law and regulation. Criminal background checks may also be required for placements in other facilities.

Health and Safety

Placements may require documentation of immunity to infectious diseases. The circumstances in which a student with an infectious disease, or who otherwise poses a significant risk to the health and safety of others, may participate in a placement will be determined on a case-by-case basis. A student who poses a significant risk to the health and safety of others that cannot be eliminated by a reasonable modification of policies, practices or procedures, or by the provision of auxiliary aids or services, will be excluded from participation.

The program descriptions in this catalog may contain more detailed requirements for specific programs. Students should always check on requirements for practicum, clinical or other field placements for the programs in which they intend to enroll.

Special Courses

Directed Study

A directed study course is a permanent catalog course delivered on an individual basis when the course is not offered that semester. A directed study requires the approval of the department concerned and final approval by the dean/director.

The policies are as follows:

- Retroactive registration is not permitted.
- Directed Study Forms incorrectly completed will not be processed.
- Courses scheduled for less than a full semester may not be offered for more than 1 credit each week.
- For fall and spring semesters, the deadline for directed study registration is the end of the ninth week.
- For the summer semester, the deadline for directed study registration is the end of the seventh week of the 10-week session.
- There can be no change in the basic content of the course. In particular, this means the number, level, prefix, description, title, grading policy (A-F, P/NP), credits and course content cannot differ from the permanent course.
- Reserved course numbers (A-90, A-92, A-93, A-94, A-95, A-97, A-98 and A-99) should not be offered as directed study.
- Only regular (tenure track or term) faculty are allowed to supervise or be the instructor of record for directed study courses. The dean or director may function as instructor of record when no regular faculty is available to fulfill that function. The responsibilities of the instructor of record are to:
  a. Approve the course of study
  b. Approve the credentials of other faculty involved
  c. See that the material is presented in full and in a timely manner
  d. Evaluate student's progress in achieving student outcomes
  e. Generate course grade and see that the grade is submitted in UAOnline by the grading deadline
  f. Assume responsibility for academic issues that arise in the course
- The faculty member teaching the course must have taught the permanent course or a related course prior to teaching a directed study.
- The initiation of directed studies must come from the faculty in the discipline and must be approved by the dean or director.
- Once the directed study course has been approved, the student will be automatically registered for the course unless holds exist on the student account.
- Student must be an admitted certificate/degree-seeking student.

Independent Study

An independent study course consists of topics or problems chosen by the student with the approval of the department concerned, supervision of an instructor and final approval by the dean/director. These courses are not duplications of and must differ significantly from any catalog course. The independent study provides the opportunity for students who have completed most of the required courses in their program to study topics that are not offered. Independent study courses are fully accredited and count toward undergraduate and graduate degrees and certificates.

The policies are as follows:

- Retroactive registration is not permitted.
- Independent study courses cannot be used to fulfill GERs. This policy is not petitionable.
- Independent Study Forms incorrectly completed will not be processed.
- Courses scheduled for less than a full semester may not be offered for more than 1 credit each week.
- For fall and spring semesters, the deadline for independent study registration is the end of the ninth week.
- For the summer semester, the deadline for independent study registration is the end of the seventh week of the 10-week session.
- Only regular (tenure track or term) faculty are allowed to supervise or be the instructor of record for independent study courses. The dean or director may function as instructor of record when no regular or term faculty are available to fulfill that function. The responsibilities of the instructor of record are to:
  a. Approve the course of study
  b. Approve the credentials of other faculty involved
  c. See that the material is presented in full and in a timely manner
  d. Evaluate student's progress in achieving student outcomes
  e. Generate course grade and see that the grade is submitted in UAOnline by the grading deadline
  f. Assume responsibility for academic issues that arise in the course
- The initiation of independent study courses must come from faculty in the discipline and must be approved by the dean or director.
- Once the independent study course has been approved, the student will be automatically registered for the course unless holds exist on the student account.
- Student must be an admitted certificate/degree-seeking student.

Crosslisted Courses

A course that contains content related to two or more disciplines may be offered under the prefixes that identify those disciplines. These courses are termed "crosslisted." Students may enroll in the course under the discipline or prefix of their choice. Catalog descriptions of these courses include the phrase "Crosslisted with." The class information on UAOnline indicates if a class is being offered in a crosslisted format.

Stacked Courses

Two or more courses from the same discipline (prefix) covering common course content, but at different course levels, may be taught together. These courses are stacked, and students may register for the course level that meets their objectives and for which they meet the prerequisites. Students enrolled in stacked courses either meet at the same time and location or receive instruction by the same delivery mode. Expectations for student performance and achievement reflect course level. Catalog descriptions of these courses include the phrase "May be stacked with." The class information on UAOnline indicates whether a class is being offered in a stacked format.

Thesis and Individual Research Courses

Thesis and individual research courses are designed between faculty members and students to allow students the chance to pursue special

individual topic interests. Registration deadlines follow independent study and directed study dates.

Interdisciplinary/Multidisciplinary Courses

Courses that explore the broader meaning and significance of concepts, principles or research techniques common to several disciplines are called interdisciplinary. Courses that examine a common topic or problem by drawing upon the perspectives of many disciplines are called multidisciplinary.

Flexible Format Courses

Certain courses are offered in flexible formats. They include:

Self-Paced

These courses offer an alternative to the traditional lecture classes and are especially suited to motivated, self-directed learners. Self-paced courses allow students to work in a low-anxiety, supportive environment. They include the following:

- Group study
- Tutorial study
- Scheduled lectures
- Diverse learning aids such as video, audio, computer and library resources.

Open Entry/Open Exit

These courses permit students to enter and exit any time during the semester. Students generally work at their own pace to complete the required course content.

Variable Credit

These courses may be taken for a variable number of credits with prior approval of the faculty member. Workload and tuition depend on the number of credits selected.

Short

Short courses offer the content of a full semester course in a shorter time frame.

Mini

Mini courses are offered for fewer than three credits and usually in a shorter time frame than a full semester.

Age Limit of Credits

There is no university-wide undergraduate policy on the age limit of credits. However, to guarantee currency of course content, some departments and degree programs require courses to have been completed within a specified period of time. Contact specific departments for more information.

Course Load

Undergraduate students may register for a maximum of 19 credits during the fall and spring semesters, and a maximum of 15 credits during the summer session. Undergraduate students who want to enroll for additional credits must submit an approved Credit Overload Form (https://www.uaa.alaska.edu/students/registrar/registrarforms.cshtml/) to the Office of the Registrar. The advisor and college dean/designee must approve overload requests for certificate- and degree-seeking students.

Graduate students may register for a maximum of 16 credits during the fall and spring semesters, and a maximum of 12 credits during the summer session. Graduate students who want to enroll for additional credits must submit an approved Graduate Academic Petition Form for a UAA catalog policy exception to the Graduate School. The faculty advisor, chair/director, college dean/designee and graduate dean must approve overload requests for graduate students.

Students should consider their graduation timeline when planning their study load. The minimum number of required credits is 60 for an associate degree and 120 for a baccalaureate degree. To complete an associate degree in two years or a baccalaureate degree in four years (excluding summers), a full-time student should plan to take a minimum of 15 credits each semester. Some degrees require more than the minimum number of credits.

Students should be aware that the need for preparatory work (for example, in writing or mathematics) in preparation for university-wide general education required courses may further extend the time required to complete their programs. When planning their course loads, students should also keep non-school demands on available time, such as employment and/or family responsibilities, firmly in mind.

Full-Time/Part-Time Status

An undergraduate student who is enrolled at UAA for 12 or more credits is classified as full-time. An undergraduate who is enrolled at UAA for fewer than 12 credits is classified as part-time and must be enrolled in at least six credits to be considered half-time.

A student who has been admitted to a UAA graduate program and is enrolled at UAA for 9 or more 600-level credits is classified as full-time. Courses at the 400-level will count toward full-time status only if they are applicable to the graduate degree program. A half-time graduate student is one enrolled for at least 5 graduate credits (400-level credits included if in the graduate degree program). See Graduate Programs (p. 357) for information.

Audited courses, credit-by-examination courses, continuing education units (CEUs) and professional development courses (500-level) are not included in the computation for full-time or part-time status.

Course Performance

In order to evaluate student learning, grades are assigned by faculty to individual students that indicate achievement of course objectives. Student behaviors such as class attendance, class participation, completion of all assignments and achievement of passing marks on all graded activities are the foundation for success of the student.

Syllabus and Course Procedures

The course syllabus is the student guide to the course. Students should receive a syllabus at the beginning of each course that describes the course content, policies within the course, procedures that govern the

delivery of the course, the learning outcomes and the grading system used.

Syllabi for courses that are fully online with no set meeting times (asynchronous delivery) should include a statement that details how regular and substantive interaction (RSI) between the faculty member and the students registered for the class will occur. The statement should include specific expectations for the different means of interaction, such as for using class discussion boards, announcements that provide class feedback and direction, individual feedback on student projects, optional study sessions, etc. Examples and support for meeting RSI are provided to all faculty by the University.

Students are responsible for obtaining the syllabus or for having access to it electronically and understanding the course policies in the syllabus. Any questions regarding information in the syllabus should be directed to the instructor for clarification.

Class Attendance

Regular attendance and active participation are expected in all classes. Students are responsible for class work even if there are legitimate reasons for their absence.

Unexcused absences may result in a student being withdrawn from the class or receiving a failing grade. Unreasonable refusal to accommodate an emergency absence or class absence as described below may be appealed under the Academic Dispute Resolution Procedure Other Academic Decisions (see Academic Rights of Students (p. 16) for more information).

Class Absences

Students who receive short-term military orders or obligations are responsible for making advance arrangements with faculty members to enable them to meet course requirements. Students participating in official intercollegiate activities on behalf of UAA, including, but not limited to, athletic competitions, debate and performing arts, are responsible for making advance arrangements with faculty members to enable them to meet course requirements. Faculty are encouraged to make reasonable accommodations for such students. In some cases accommodation may not be possible.

Military Students Called to Active Duty or Deployment

Students called to active duty or who are involuntarily activated, deployed or relocated during an academic term may be able to make arrangements with their faculty members to complete their courses via e-learning. In those cases where this is not possible or desirable, these students are eligible for the 100 percent refund of tuition and fees and a prorated adjustment on housing and meal plans. Returning military students are not required to reapply for admission and are welcomed back as in-state residents for tuition purposes. Military students who return after their admitted catalog expires should meet with an academic advisor for assistance.

Course Placement

Appropriate course placement is an essential component of academic success. Standardized test scores often inform a student's course placement in math or writing, but they are not the only measure available. In the case of writing placement, students may complete a course matching survey and submit a writing sample (https://www.uaa.alaska.edu/academics/office-of-academic-affairs/student-success/writing-samples.cshtml/) to receive specific guidance on their placement options and next steps. Students may also be eligible for placement based upon nontraditional credit (https://catalog.uaa.alaska.edu/academicpoliciesprocesses/academicstandardsregulations/nontraditionalcreditpolicies/). Students should consult their academic advisor (https://www.uaa.alaska.edu/academics/advising/) prior to registration to discuss placement scores and course prerequisites for appropriate course selection. Refer to this catalog for specific course prerequisites and placement score requirements.

Communication Course Placement

The following communication (COMM) courses require appropriate placement scores for course registration. A student who has earned an appropriate ACT, SAT, or Accuplacer score is eligible to enroll in the courses listed in the table below. The following table shows the minimum scores needed to place into specific courses.

Course	Accuplacer Next Generation	Accuplacer Classic	ACT English	Enhanced ACT English & Reading Combined	SAT Evidence-Based Reading and Writing
COMM A111	(Writing: 265 & Reading: 265) or a combined score of 530	(Reading Comprehension: 80 & Sentence Skills: 90) or a combined score of 170	22	36	480
COMM A235	(Writing: 265 & Reading: 265) or a combined score of 530	(Reading Comprehension: 80 & Sentence Skills: 90) or a combined score of 170	22	36	480
COMM A237	(Writing: 265 & Reading: 265) or a combined score of 530	(Reading Comprehension: 80 & Sentence Skills: 90) or a combined score of 170	22	36	480
COMM A241	(Writing: 265 & Reading: 265) or a combined score of 530	(Reading Comprehension: 80 & Sentence Skills: 90) or a combined score of 170	22	36	480

Mathematics Course Placement

A student who has completed the course prerequisites is eligible to enroll in MATH or STAT courses. MATH or STAT prerequisite courses are valid for 24 months from the date completed.

A student who has not completed the course prerequisites must earn an appropriate score on a UAA-approved placement test. MATH placement test scores are valid for one year from the date taken.

Detailed information about Mathematics and Statistics placement testing, as well as access to the test, are available on the UA ALEKS website (https://www.alaska.edu/aleks/).

The following table shows the scores needed to place into specific courses.

Course	ALEKS Score
MATH A054 or MATH A060	0-16
MATH A055	17-29
MATH A105	30-54
MATH A104 or MATH A115	30-100
MATH A121 or MATH A151 or MATH A155	55-77
STAT A200	55-100
MATH A152	65-77
STAT A253	65-100
MATH A221 or MATH A251	78-100

Writing Course Placement

Writing (WRTG) courses require appropriate placement measures for course registration. A student who has earned an appropriate ACT, SAT, or Accuplacer score is eligible to enroll in the courses listed in the table below. Alternatively, a student can complete a writing sample (https://www.uaa.alaska.edu/academics/office-of-academic-affairs/student-success/writing-samples.cshtml/) for the course placement.

Students with ACT or SAT scores that place them in 200-level WRTG courses may receive credit by placement for WRTG A111 upon completion of WRTG A211, WRTG A212, WRTG A213 or WRTG A214 with a grade of C or better. To receive this credit, students must submit the appropriate form to the Office of the Registrar.

Students may consult an an academic advisor (https://www.uaa.alaska.edu/academics/advising/) to discuss course options and consider additional placement measures. Call (907) 786-0338 to request a writing placement appointment on the Anchorage campus or contact the testing center at your community campus.

Detailed information about testing services for writing placement, as well as student guides and sample questions, are available at the following testing centers and on their websites, linked below.

UAA Anchorage Testing Center: (907) 786-4525 or uaa_testingcenter@alaska.edu

Kenai Peninsula College Learning Centers: Kenai River Campus Learning Center (907) 262-0330; Kachemak Bay Campus Learning Resource Center (907) 235-1658; or call toll-free 1-877-262-0330 and ask to be connected to one of the centers

Kodiak College Test Center (https://koc.alaska.edu/academic-resources/test-center/): (907) 486-1232 uaa_koctesting@alaska.edu

Matanuska-Susitna College Elizabeth J. Fallon Learning Resource Center: (907) 745-9772 or matsutesting@alaska.edu

Prince William Sound College (https://pwsc.alaska.edu/academics/testing-proctoring.cshtml/): (907) 834-1600 or pwsc.testing@alaska.edu

The following table shows the minimum scores needed to place into specific courses.

Course	Accuplacer Next Generation	Accuplacer Classic	ACT English	Enhanced ACT English & Reading Combined	SAT Evidence-Based Reading and Writing
WRTG A090	(Writing: 235 & Reading: 235) or a combined score of 470	(Reading Comprehension: 50 & Sentence Skills: 60) or a combined score of 110	N/A	N/A	N/A
WRTG A110	(Writing: 250 & Reading: 250) or a combined score of 500	(Reading Comprehension: 65 & Sentence Skills: 75) or a combined score of 140	18	30	430
WRTG A111	(Writing: 265 & Reading: 265) or a combined score of 530	(Reading Comprehension: 80 & Sentence Skills: 90) or a combined score of 170	22	36	480
WRTG A211 or WRTG A212 or WRTG A213 or WRTG A214	N/A	N/A	30	N/A	610

E-mail Communications

UAA uses e-mail to communicate with students on many important matters. The university automatically assigns each student an official University of Alaska (UA) e-mail account.

All communication related to registration and enrollment activities will occur either through the preferred e-mail that students submit via UAOnline or through the official UA-assigned e-mail. Students should be careful to keep these accounts clear and review the correspondence received there regularly.

Students are responsible for knowing and, when appropriate, acting on the contents of all university communications sent to their official UA e-mail accounts. To receive university communication at a different e-mail address, students may forward e-mail from their assigned UA accounts to any valid third party e-mail address of their choice that accepts forwarded e-mail. More information may be found on the IT

Services website (https://www.uaa.alaska.edu/about/administrative-services/departments/information-technology-services/).

Grading

Academic Letter Grades

With the exception of letter grades assigned to 500-level professional development courses, these letter grades carry grade points and are used to calculate grade point averages (GPAs). Faculty must submit a last date of attendance in conjunction with an F grade.

Code	Description
A	Honor grade; indicates comprehensive mastery of required work.
B	Indicates high level of performance in meeting course requirements.
C	Indicates satisfactory level of performance.
D	Indicates lowest passing grade; may not be acceptable to fulfill prerequisites for certain courses or satisfy requirements in certain majors and in graduate programs.
F	Indicates failure.

Non-Academic Grades

These grades do not carry grade points and are not used to calculate GPAs. However, CR, NC, P, NB and NP grades may be used to determine satisfactory academic progress for purposes of financial aid. Faculty must submit a last date of attendance in conjunction with an NB grade.

Code	Description
CR	Indicates credit was received for the course.
DF	Deferred indicates course requirements cannot be completed by end of semester. It is to be used for courses that cannot normally be completed in a semester (such as thesis, project, research, internships, etc.).
I	Incomplete indicates additional work must be completed to receive a final grade. If the coursework is not completed within one year and the faculty member does not submit a change of grade at that time, the I will become a permanent grade.
NB	No basis indicates there is insufficient progress or attendance for evaluation to occur.
NC	Indicates no credit was received for the course.
NP	Indicates work that is not passing (no credit received).
P	Indicates passing work.

Other Designations

These designations do not carry grade points and are not used to calculate GPAs but may be used to determine satisfactory academic progress for purposes of financial aid.

Code	Description
AU	Audit indicates enrollment for information only (no credit received).
W	Indicates withdrawal from the course.

Credit/No Credit

Credit/no credit (CR/NC) is a grading option that encourages students to explore areas of interest. Undesignated electives may be completed under this option. A maximum of 15 credits earned by this option may be applied to an associate or baccalaureate degree.

This option may not be used in courses that meet General Education Requirements (GERs) or major or minor requirements in a student's program. If a student later changes their major/minor and the course becomes a requirement, the course may be accepted in the new major/minor at the discretion of the new department.

The CR/NC option is not available for graduate courses, nor can this option be used on courses repeated for GPA improvement.

The instructor grades students using the grading basis approved for the course (A-F or P/NP). Students are awarded credit for the course if their final grade is P or a minimum grade of C. A grade of CR (credit) is entered on the student's transcript.

For performance comparison only, a grade of CR is considered equivalent to a minimum grade of C. A grade of CR does not carry grade points and is not included in GPA calculations.

Students may request the CR/NC grading option by contacting the Office of the Registrar and must do so by the semester add/drop deadline. Once selected, this grading option may not be changed to regular grading after the semester add/drop deadline.

Deferred Grade

A deferred grade (DF) is used when the student is making satisfactory progress but completion of the course (such as thesis, project, research courses, internships, etc.) typically requires more than one semester. Credit is withheld, without academic penalty, until the course requirements are met. If coursework is not completed prior to fulfilling graduation requirements or if the student fails to maintain enrollment for one year, the DF will become a permanent grade, and it will be necessary for the student to re-register to obtain credit for the course.

Incomplete Grade

An incomplete grade (I) is assigned only at the discretion of the instructor. It is used to indicate that a student has made satisfactory progress in the majority of the work in a course but, for unavoidable absences or other conditions beyond the control of the student, has not been able to complete the course.

An Incomplete Grade Contract Form between the student and the faculty member, stipulating the assignment(s) required to finish the course and the time frame for submission, is required and should be filed with the dean's office when an incomplete grade is assigned. Coursework must be completed by the date specified in the contract, not to exceed one year.

Upon completion of the required coursework, the faculty member must submit a Change of Grade Form to the Office of the Registrar. If coursework is not completed by the contract deadline and the faculty member does not submit a Change of Grade Form at that time, the incomplete will become a permanent grade. The student has until the last day of class of the first full semester following the end of the contract to resolve any grading discrepancies.

No Basis Grade

A no basis (NB) grade may be used when the student has not attended or there is insufficient student progress and/or attendance for evaluation to occur. No credit is awarded, nor is NB calculated in the GPA. However, this grade may be used to determine satisfactory academic progress for purposes of federal financial aid. This is a permanent grade and may not be used to substitute for the incomplete grade. It cannot be removed later by completing outstanding work. Earning a NB grade in a retaken course will not replace the grade previously earned. Faculty must submit a last date of attendance in conjunction with this grade.

Pass/No Pass

In some courses, students are graded on a pass/no pass (P/NP) basis. This grading system is established at the time the course is approved and must apply to the class as a whole. Pass/no pass grading is not a student option.

When a course is graded pass/no pass, the faculty member must clearly explain this fact to the students at the beginning of the class.

For performance comparison only, a grade of P (pass) is considered equivalent to a minimum grade of C in undergraduate courses and a minimum grade of B in graduate courses. Pass/no pass grades are used to determine satisfactory academic progress for purposes of federal financial aid. However, P/NP grades do not carry grade points and are not used in GPA calculations.

Grade Changes

Grades submitted by the faculty, other than incomplete (I) or deferred (DF), are assumed to be final grades. A grade may not be changed unless a grading error, such as a mathematical miscalculation or inaccurate recording, has been made on the part of the faculty member. Corrections of grading errors must be made by the last class day of the next regular semester following the one in which the grade was originally assigned. A Change of Grade Form must be submitted to the Office of the Registrar by the appropriate faculty member. Change of Grade Forms will not be accepted if submitted by the student.

Allegations of final grading errors or arbitrary and capricious grading for a final grade assignment are reviewed according to the Academic Dispute Resolution Procedure (p. 16).

Grade Point Average (GPA) Computation

UAA uses the 4-point system as a measure of scholastic success. Academic letter grades carry the following values:

A	4.00
B	3.00
C	2.00
D	1.00
F	0.00

A quality hour is defined as one credit hour for a course graded A-F. For each course the student takes with quality hours, that number of quality hours for the course is multiplied by the point value of the grade to give the total grade points for that course. The sum of the total grade points for all courses is then divided by the total number of quality hours to compute the grade point average (GPA).

For example, a student who took three courses and earned an A for a 3-credit course, a C for a 1-credit course, and a P (pass) for a 2-credit course would have a total of four quality hours. The total grade points for the first course would be 12 and for the second would be 2. The GPA would be calculated by dividing the sum of 12 and 2 by 4, the number of quality hours, to determine a GPA of 3.50.

The following non-academic grades do not carry grade points and are not used in calculating the GPA: P, NP, CR, NC, DF, I, NB and letter grades assigned to 500-level courses. In addition, AU and W are not grades and are not used in GPA calculations.

Credits accepted in transfer are not used to calculate the student's UAA GPA.

Students may find information on the impact of retaken courses on GPA by viewing Retaking Courses (p. 21).

Graduation

Application for Graduation

UAA awards degrees and certificates and prints diplomas year-round. To be eligible for graduation at the end of a given semester, a student must:

- Be formally admitted to the degree or certificate program and submit an Application for Graduation through UAOnline or
- Submit an Earn Degree/Certificate on the Way application (https://www.uaa.alaska.edu/students/registrar/registrarforms.cshtml/) and meet the eligibility requirements listed on the form.

Application for graduation deadlines are the Friday before finals for the semester in which the student intends to graduate. Students wishing to

have their name in the commencement ceremony program must apply by an earlier deadline. See the Office of the Registrar's calendar (https://www.uaa.alaska.edu/students/registrar/calendar/index.cshtml/) for specific deadline dates.

If the student meets all requirements by the end of the semester, the certificate or degree is awarded after the completion of the semester. Students are held responsible for meeting all academic regulations and degree/certificate requirements. Students who complete requirements before the end of the semester may contact uaa.degrees@alaska.edu to request that their certificate/degree be awarded early.

Names of students receiving certificates and degrees appear in the commencement program and are released to the media unless a student places a directory hold on their record.

Students who apply for graduation and do not complete their degree/certificate requirements by the end of the semester in which they have applied to graduate, but are within 6 or fewer credits of completion, will have their application for graduation moved to the following semester by the Office of the Registrar (spring to summer, summer to fall, or fall to spring). This courtesy change will be granted one time. Students with more than 6 outstanding credits of requirements remaining, or who have 6 credits or fewer remaining for a second semester, must reapply for graduation.

Graduation with Honors

UAA recognizes outstanding student scholarship in associate and baccalaureate degree graduates by granting Latin Honors based on the following criteria:

- Have at least a 3.50 cumulative UAA GPA
- UAA resident credit of 30 semester hours for a baccalaureate degree
- UAA resident credit of 15 semester hours for an associate's degree

GPA calculations for graduation with honors do not include:

- Credits that were excluded due to retaking a course or through the Academic Fresh Start or Academic Renewal programs
- Transfer credits, non-credit courses, and credit by examination or other forms of nontraditional credit

Honors are awarded to associate and baccalaureate degree graduates with cumulative GPAs as follows:

Cum Laude	3.50 to 3.74
Magna Cum Laude	3.75 to 3.89
Summa Cum Laude	3.90 to 4.00

Commencement

Students who complete certificate or degree requirements in the summer and fall semesters will be invited to participate in fall commencement ceremonies in December. Students who complete certificate or degree requirements in the spring semester will be invited to participate in spring commencement ceremonies in May. Undergraduate students will only be eligible to wear honor cords and be recognized in the commencement program as receiving university honors if their overall GPA at the end of the preceding semester is 3.50 or above. If students earn university honors after their final grades are submitted, they will have honors displayed on their diploma and academic transcript and may request an honor cord with their diploma.

Hooding Ceremony

Graduate students who complete degree requirements will be invited to participate in a formal hooding ceremony. Hooding ceremonies are typically held the day prior to commencement.

Nontraditional Credit Policies

Nontraditional Credit

Academic credit may be awarded to students who demonstrate mastery of knowledge or skills that were acquired outside of an accredited college or university. Nontraditional credit evaluations are available for accepted degree-seeking UAA students. Credit is granted for coursework for which students show documented achievement of equivalent outcomes. UAA faculty have evaluated specific training programs, exams and certifications in a number of disciplines and have determined that those listed below may result in the award of academic credit. The discipline and number of credits are established by the faculty and reviewed on a regular basis. Use of nontraditional credit to complete certificate or degree requirements may be limited; students should see their academic advisor for more information.

See below for more detailed information. Some courses appearing in the UAA Equivalent column satisfy General Education Requirements. Click the course hyperlink for details. Electives do not satisfy General Education Requirements.

Advanced Placement (AP) Program

Credit may be awarded for successful completion of the AP examination. Credit awarded for examinations may be elective credit. A student may work with an individual department to determine if more specific course credit may be awarded for a specific examination.

A student desiring credit for an AP examination must request that an official report of examination scores be sent to the UAA Office of the Registrar. Credit may be received for more than one AP examination.

AP Capstone Diploma Program

Test	Min. Score	UAA Equivalent	Credits
Research	3	HNRS 200-level elective	3
Seminar	3	HNRS 100-level elective	3

Arts

Test	Min. Score	UAA Equivalent	Credits
Art History	3	ART A261 and ART A262	6
Music Theory	4	MUS A111	3
Studio Art	3	ART 100-level elective	4

English

Test	Min. Score	UAA Equivalent	Credits
English Language and Composition	3	WRTG A111	3
English Literature and Composition	3	ENGL A121	3

History and Social Sciences

Test	Min. Score	UAA Equivalent	Credits
Comparative Government and Politics	3	PS 100-level Social Sciences GER	3
European History	3	HIST A101 and HIST A102	6
Human Geography	3	GEOG 100-level Social Sciences GER	3
Macroeconomics	3	ECON A102	3
Microeconomics	3	ECON A101	3
Psychology	3	PSY A111	3
United States Government and Politics	3	PS A101	3
United States History	3	HIST A131 and HIST A132	6
World History Modern	3	HIST A102	3

Math and Computer Science

Test	Min. Score	UAA Equivalent	Credits
Calculus AB	4	MATH A251	4
Calculus BC	4	MATH A251 and MATH A252	8
Computer Science Principles	3	CSCE A101	3
Computer Science A	3	CSCE A201	4
Statistics	3	STAT A200	3

Sciences

Test	Min. Score	UAA Equivalent	Credits
Biology	4	BIOL A102 and BIOL A103 and BIOL 100-level elective (4 cr.)	8
Biology	5	BIOL A108	6
Chemistry	3	CHEM A105 and CHEM A105L	4
Chemistry	4	CHEM A105 and CHEM A105L and CHEM A106 and CHEM A106L	8
Environmental Science	3	ENVI A211 and ENVI 200-level Natural Sciences Lab GER	4
Physics 1	3	PHYS 100-level Natural Sciences w/ lab GER	4
Physics 2	4	PHYS 100-level Natural Sciences w/ lab GER	4
Physics C: Electricity and Magnetism	4	PHYS 200-level Natural Sciences w/ lab GER	4
Physics C: Mechanics	4	PHYS 200-level Natural Sciences w/ lab GER	4

World Languages and Cultures

Test	Min. Score	UAA Equivalent	Credits
Chinese Language and Culture	3	LANG 100-level Humanities GER	8
French Language and Culture	4	FREN A101 and FREN A102	8
German Language and Culture	4	GER A101 and GER A102	8
Italian Language and Culture	4	LANG 100-level Humanities GER	8
Japanese Language and Culture	3	JPN A101 and JPN A102	8
Latin	3	LAT 100-level Humanities GER	6
Spanish Language and Culture	4	SPAN A101 and SPAN A102	8
Spanish Literature and Culture	4	SPAN A201 and SPAN A202	8

Certified Experience Credit

UAA may award elective or specific course credit for learning that is documented with a professional certification or completion of exams that lead to certification. These certificates indicate that individuals have met certain standards and demonstrated specific competencies. Pre-approved Certified Experience Credit can be accessed from the Certified Experience Credit Form (https://www.uaa.alaska.edu/students/registrar/registrarforms.cshtml/) on the Registrar's website. To receive this credit, students must submit the appropriate form (https://www.uaa.alaska.edu/students/registrar/registrarforms.cshtml/) to the Office of the Registrar and pay an administrative fee. Students should contact departments directly with questions about specific certifications.

UAA does not accept recommendations related to massive open online courses (MOOCs) at this time.

College-Level Examination Program (CLEP)

Credit may be awarded for successful completion of the CLEP examination. Credit awarded for examinations may be elective credit. A student may work with an individual department to determine if more specific course credit may be awarded for a specific examination.

A student desiring credit for a CLEP examination must request that an official report of examination scores be sent to the UAA Office of the Registrar. Credit may be received for more than one CLEP examination.

Composition and Literature

Test	Min. Score	UAA Equivalent	Credits
American Literature	50	ENGL 200-level Humanities GER	3
Analyzing and Interpreting Literature	50	ENGL 100-level elective	3
Analyzing and Interpreting Literature	58	ENGL A121 (with successfully passed UAA English Department assigned essay)	3
College Composition	50	WRTG A111	3
College Composition Modular	50	WRTG A111 (with successfully passed UAA English Department assigned essay)	3
English Literature	50	ENGL 200-level Humanities GER	3

Foreign Languages

Test	Min. Score	UAA Equivalent	Credits
French Language	55	FREN A101 and FREN A102	8
French Language	72	FREN A101 and FREN A102 and FREN A201 and FREN A202	16
German Language	55	GER A101 and GER A102	8
German Language	72	GER A101 and GER A102 and GER A201 and GER A202	16
Spanish Language	55	SPAN A101 and SPAN A102	8
Spanish Language	72	SPAN A101 and SPAN A102 and SPAN A201 and SPAN A202	16
Spanish with Writing	50	SPAN A101 and SPAN A102	8
Spanish with Writing	65	SPAN A101 and SPAN A102 and SPAN A201 and SPAN A202	16

History and Social Sciences

Test	Min. Score	UAA Equivalent	Credits
American Government	50	PS A101	3
Human Growth and Development	50	PSY A150	3
Introduction to Educational Psychology	50	EDFN A100-level elective	3
Introductory Psychology	50	PSY A111	3
Introductory Sociology	50	SOC A101	3
Principles of Microeconomics	50	ECON A101	3
Principles of Macroeconomics	50	ECON A102	3
Social Sciences and History	58	SSCI 100-level Social Science GER (3 cr.) and SSCI 100-level Humanities GER (3 cr.)	6

Science and Mathematics

Test	Min. Score	UAA Equivalent	Credits
Biology	58	BIOL A102 and BIOL A103	4
Calculus	50	MATH A251	4
Chemistry	50	CHEM A105 and CHEM A105L and CHEM A106 and CHEM A106L lab	8
College Algebra	50	MATH A151	4
College Mathematics	50	MATH 100-level elective	6
Natural Sciences	50	BIOL A102 and NSCI 100-level elective (3 cr.)	6
Pre-calculus	50	MATH 100-level Quantitative Skills GER	3

Business

Test	Min. Score	UAA Equivalent	Credits
Financial Accounting	50	ACCT A201	3
Information Systems (formerly Information Systems and Computer Applications)	50	CIOS 100-level elective	3
Introductory Business Law	50	BA 100-level elective	3
Principles of Management	50	BA 200-level elective	3
Principles of Marketing	50	BA 200-level elective	3

Credit for Prerequisite Not Taken

An accepted degree-seeking UAA student who has completed a UAA course with a grade of C or higher may be eligible to receive credit for the prerequisite course. This applies only to specific UAA catalog courses approved in advance by the UAA program, which also determines the number and level of credits awarded. Credit for prerequisite not taken does not apply to credit earned through other nontraditional credit procedures, nor to special topics (-93) or independent study (-97) courses. To receive this credit, students must submit the appropriate form (https://www.uaa.alaska.edu/students/registrar/registrarforms.cshtml/) to the Office of the Registrar and pay an administrative fee.

The approved UAA courses are included in the sections below.

Alaska Native Language Credit for Prerequisite Not Taken

An accepted degree-seeking UAA student who has completed AKNS A102A, AKNS A102B, AKNS A102C, AKNS A102D, AKNS A102E, AKNS A102F, AKNS A102H or AKNS A102I with a grade of C or higher is eligible to receive credit

for the preceding course AKNS A101A, AKNS A101B, AKNS A101C, AKNS A101D, AKNS A101E, AKNS A101F, AKNS A101H or AKNS A101I To receive this credit, students must submit the appropriate form (https://www.uaa.alaska.edu/students/registrar/registrarforms.cshtml/) to the Office of the Registrar and pay an administrative fee.

Language Credit for Prerequisite Not Taken

An accepted degree-seeking UAA student who has completed one of the Department of Languages UAA catalog courses (A102-A301) in residence with a grade of C or higher is eligible to receive credit for the two immediately preceding courses, if any, up to a total of 8 credits, not to exceed the level of A202. Language Credit for Prerequisite Not Taken is limited to one time per language. This policy does not apply to credit earned through Department of Languages literature or culture courses. To receive this credit, students must submit the appropriate form (https://www.uaa.alaska.edu/students/registrar/registrarforms.cshtml/) to the Office of the Registrar and pay an administrative fee.

Writing Credit for Prerequisite Not Taken

Admitted, degree-seeking UAA students with ACT or SAT scores that place them in 200-level WRTG courses may receive credit by placement for WRTG A111 upon successful completion of WRTG A211, WRTG A212, WRTG A213 or WRTG A214 with a grade of C or better. Students who transfer in a 200-level or higher Written Communications GER course with a grade of C or higher and who have not completed the six credit Written Communications Skills GER may also receive credit for WRTG A111. To receive this credit, students must submit the appropriate form (https://www.uaa.alaska.edu/students/registrar/registrarforms.cshtml/) to the Office of the Registrar and pay an administrative fee.

DSST Examinations

Credit may be awarded for successful completion of the DSST (formerly known as DANTES) examination. Credit awarded for examinations may be elective credit. A student may work with an individual department to determine if more specific course credit may be awarded for a specific examination.

A student desiring credit for a DSST examination must request that an official report of examination scores be sent to the UAA Office of the Registrar. Credit may be received for more than one DSST examination.

Business

Test	Min. Score	UAA Equivalent	Credits
Business Ethics and Society (475)	400	PHIL 200-level elective	3
Business Law II (534) (accepted but no longer offered by DSST)	65	BA 300-level elective	3
Business Mathematics (812)	48 or 400	MATH 100-level elective	3
Computing and Information Technology (536)	45 or 400	CIOS 100-level elective	3
Human Resource Management (530)	46 or 400	BA 200-level elective	3
Introduction to Business (543)	46 or 400	BA A151	3
Management Information Systems (551)	400	BA 200-level elective	3
Organizational Behavior (531)	48 or 400	BA 200-level elective	3
Personal Finance (550)	46 or 400	BA A131	3
Principles of Finance (524)	46 or 400	BA 100-level elective	3
Principles of Financial Accounting (525) (accepted but no longer offered by DSST)	47 or 400	ACCT A201	3
Principles of Supervision (532)	46 or 400	BA A231	3

English/Writing

Test	Min. Score	UAA Equivalent	Credits
Principles of Advanced English Composition (301)	400	Placement into WRTG A211, WRTG A212, WRTG A213 or WRTG A214 (eligible to receive credit with submission of appropriate form for WRTG A111 upon completion of 200-level WRTG course with a minimum grade of C)	
Technical Writing (820)	46 or 400	ENGL 100-level elective or WRTG A212 (with successfully passed UAA English Department assigned essay)	3

Humanities

Test	Min. Score	UAA Equivalent	Credits
Art of the Western World (461)	48 or 400	ART A262	3
Ethics in America (474)	400	PHIL 200-level Departmental Elective or PHIL 200-level Humanities GER (with successfully passed UAA Philosophy Department assigned essay)	3
Introduction to World Religions (496)	400	PHIL 200-level Humanities GER	3

Math

Test	Min. Score	UAA Equivalent	Credits
Fundamentals of College Algebra (424)	47 or 400	MATH A105	4
Principles of Statistics (450)	48 or 400	STAT A200	3

Physical Science

Test	Min. Score	UAA Equivalent	Credits
Astronomy (500)	48 or 400	ASTR 100-level Natural Sciences Lecture GER	3
Environmental Science (510)	400	ENVI A211	3
Health and Human Development (508)	400	HLTH 200-level elective	3
Physical Geology (519) (accepted but no longer offered by DSST)	46	GEOL 100-level Natural Sciences Lecture GER	3
Principles of Physical Science I (512)	47 or 400	NSCI 100-level Natural Sciences Lecture GER	3

Social Science

Test	Min. Score	UAA Equivalent	Credits
Criminal Justice (498)	400	JUST 200-level elective	3
Foundations of Education (489)	46 or 400	EDFN 200-level elective	3
Fundamentals of Counseling (562)	45 or 400	PSY 200-level elective	3
General Anthropology (494)	47 or 400	ANTH A101	3
Human/Cultural Geography (470)	48 or 400	GEOG 100-level Social Sciences GER	3
Introduction to Law Enforcement (497)	45 or 400	JUST 100-level elective	3
Lifespan Development Psychology (490)	46 or 400	PSY A150	3
Substance Abuse (495)	426	HS 300-level elective	3

UExcel Examinations

Credit may be awarded for successful completion of the UExcel examination. Credit awarded for UExcel examinations is elective credit. A student may work with an individual department to determine if more specific course credit may be awarded for a specific examination.

A student desiring credit for the UExcel examination must request that an official report of examination scores be sent to the UAA Office of the Registrar. Credit may be received for more than one UExcel examination.

UExcel: Business

Test	Min. Score	UAA Equivalent	Credits
Business Ethics (BUSX-323)	C	BA 300-level elective	3
Business Law (BUSX-230)	C	BA 200-level elective	3
Financial Accounting (ACCX-211)	C	ACCT 200-level elective	3
Human Resource Management (BUSX-410)	C	BA 300-level elective	3
Introduction to Macroeconomics (ECOX-262)	C	ECON 200-level elective	3
Introduction to Microeconomics (ECOX-260)	C	ECON 200-level elective	3
Labor Relations (BUSX-360)	C	BA 300-level elective	3
Managerial Accounting (ACCS-212)	C	ACCT 200-level elective	3
Operations Management (BUSX-425)	C	BA 300-level elective	3
Organizational Behavior (BUSX-315)	C	BA 300-level elective	3
Principles of Finance (BUSX-350)	C	BA 300-level elective	3
Principles of Management (BUSX-240)	C	BA 200-level elective	3
Principles of Marketing (BUSX-250)	C	BA 200-level elective	3
Quantitative Analysis (BUSX-437)	C	BA 400-level elective	3
Workplace Communication with Computers (BUSX-220)	C	BA 200-level elective	3

UExcel: Humanities

Test	Min. Score	UAA Equivalent	Credits
Bioethics: Philosophical Issues (HUMX-310)	C	PHIL 300-level elective	3
College Writing (ENGX-110)	C	ENGL 100-level elective	3
English Composition (ENGX-111)	C	ENGL 100-level elective	6
Ethics: Theory and Practice (PHIX-310)	C	PHIL 300-level elective	3
Introduction to Music (MUSX-101)	C	MUS 100-level elective	3
Introduction to Philosophy (PHIX-101)	C	PHIL 200-level elective	3
Interpersonal Communication (COMX-215)	C	COMM 200-level elective	3

Literacy Instruction in the Elementary School (EDUX-310)	C	EDEL 300-level elective	6
Spanish Language (SPAX-102)	C	SPAN 100-level elective	6

UExcel: Natural Sciences and Mathematics

Test	Min. Score	UAA Equivalent	Credits
Anatomy & Physiology (BIOX-210)	C	BIOL 200-level elective	6
Anatomy and Physiology I (BIOX-104)	C	BIOL A111	3
Anatomy and Physiology II (BIOX-106)	C	BIOL A112	3
Basic Genetics (BIOX-250)	C	BIOL 200-level elective	3
Calculus (MATX-150)	C	MATH 200-level elective	4
Contemporary Mathematics (MATX-100)	C	MATH 100-level elective	3
Earth Science (GEOX-101)	C	GEOL 100-level elective	3
Microbiology (BIOX-220)	C	BIOL 200-level elective	3
Pathophysiology (BIOX-410)	C	BIOL 400-level elective	3
Physics (PHYX-140)	C	PHYS 100-level elective	3
Precalculus Algebra (MATX-116)	C	MATH 100-level elective	3
Statistics (MATX-210)	C	STAT 200-level elective	3

UExcel: Nursing

Test	Min. Score	UAA Equivalent	Credits
Transition to the Professional Nurse Role (NURX-108)	C	NURS 100-level elective	3
Foundations in Nursing Practice (NURX-109)	C	NURS 100-level elective	3
Reproductive Health (NURX-209)	C	NURS 200-level elective	3
Fundamentals of Nursing (NURX-210)	C	NURS 200-level elective	8
Maternal and Child Nursing (Associate) (NURX-220)	C	NURS 200-level elective	6
Adult Nursing (NURX-310)	C	NURS 300-level elective	8
Maternal and Child Nursing (Baccalaureate) (NURX-315)	C	NURS 300-level elective	8
Psychiatric/ Mental Health Nursing (NURX-320)	C	NURS 300-level elective	8

ECE: Nursing Theory

Test	Min. Score	UAA Equivalent	Credits
Essentials of Nursing Care: Health Safety (NURX-104)	C	NURS 100-level elective	3
Essentials of Nursing Care: Health Differences (NURX-105)	C	NURS 100-level elective	3
Essentials of Nursing Care: Chronicity (NURX-106)	C	NURS 100-level elective	3
Health Differences Across the Lifespan 1 (NURX-211)	C	NURS 200-level elective	3
Health Differences Across the Lifespan 2 (NURX-212)	C	NURS 200-level elective	3
Health Differences Across the Lifespan 3 (NURX-213)	C	NURS 200-level elective	3
Transition to the Registered Professional Nurse Role (NURX-214)	C	NURS 200-level elective	3
Research in Nursing (NURX-430)	C	NURS 400-level elective	3
Community-Focused Nursing (NURX-448)	C	NURS 400-level elective	3

UExcel: Social Science and History

Test	Min. Score	UAA Equivalent	Credits
Abnormal Psychology (PSYX-310)	C	PSY 300-level elective	3
Cultural Diversity (SOCX-305)	C	SOC 300-level elective	3

Foundations of Gerontology (SOCX-310)	C	SOC 300-level elective	3
Introduction to Psychology (PSYX-101)	C	PSY 100-level elective	3
Introduction to Sociology (SOCX-105)	C	SOC 100-level elective	3
Juvenile Delinquency (SOCX-320)	C	JUST 300-level elective	3
Lifespan Developmental Psychology (PSYX-210)	C	PSY 100-level elective	3
Political Science (POLX-170)	C	PS 100-level elective	3
Psychology of Adulthood and Aging (PSYX-315)	C	PSY 300-level elective	3
Research Methods in Psychology (PSYX-365)	C	PSY 300-level elective	3
Social Psychology (PSYX-325)	C	PSY 300-level elective	3
World Conflicts Since 1900 (HISX-340)	C	PS 300-level elective	3
World Population (SOCX-330)	C	SOC 300-level elective	3

International Baccalaureate

Credit may be awarded for completion of the International Baccalaureate (IB) Examinations*, as per the below equivalencies and minimum scores. To receive this credit, students must request that an official report of examination scores be sent to the UAA Office of the Registrar. Credit may be received for more than one IB examination.

Test	Min. Score	UAA Equivalent	Credits
ART: Film Art - HL	5	ART 100-level elective	3
BIOL: Biol - HL	5	BIOL A108	6
ENGL: English Literature - HL	5	WRTG A111	3
HIST: American History - HL	5	HIST 100-level elective	3
HIST: European History - HL	5	HIST 100-level elective	3
FREN: French B - HL	5-6	FREN A101 and FREN A102	8
FREN: French B - HL	7	FREN A101 and FREN A102 and FREN A201	12
GER: German B - HL	5-6	GER A101 and GER A102	8
GER: German B - HL	7	GER A101 and GER A102 and GER A201	12
MATH: Applications and Interpretation - SL	5	MATH A1Q UAA Quantitative Skills GER	3
PSY: Psychology - HL	5	PSY A111 and PSY 100-level elective (3 cr.)	6
SPAN: Spanish B - HL	5-6	SPAN A101 and SPAN A102	8
SPAN: Spanish B - HL	7	SPAN A101 and SPAN A102 and SPAN A201	12
KIN: Sports, Excercise and Health Science - SL	4	KIN 100-level elective	3

* *HL - Higher Level Examination*
SL - Standard Level Examination

Local Credit by Examination or Portfolio

Accepted degree- or certificate-seeking students may be awarded credit through locally developed comprehensive examinations or by student-produced portfolios that demonstrate achievement of the student learning outcomes for specific courses. However, credit by examination or portfolio is not available for all courses or programs, and students should check with their program for more information about the availability, requirements, and process. A complete list of all courses approved for credit by exam or portfolio is published on the Registrar's site.

Once the faculty have evaluated the student's exam or portfolio, if the student meets the criteria for passing, the student must submit the appropriate form (https://www.uaa.alaska.edu/students/registrar/registrarforms.cshtml/) to the Office of the Registrar and pay an administrative fee.

General criteria for local credit by examination or portfolio include:

1. Credit by examination or portfolio applies for courses at the 100 level or higher.
2. Determination of which courses might be available for credit by local examination or portfolio is at the discretion of the appropriate program. The program must put forward a proposal indicating the course and outlining a consistent process to be available to all students interested in the option. This proposal will be reviewed and approved by the dean and provost.
3. Typically credit for independent study courses and trial courses is not available through local examination or portfolio.
4. Local credit by examination or portfolio is not awarded for a course that duplicates one for which credit has already been granted.
5. Students are awarded credit and a grade of P (pass) for credit by local examination or portfolio.
6. If students do not pass the local examination or do not demonstrate achievement of the learning outcomes identified for credit by portfolio, the course is not recorded on the student's transcript.

7. Grades for courses taken through local credit by examination or portfolio do not carry grade points used in calculating a student's UAA GPA.
8. Credit awarded through local credit by examination or portfolio is considered non-resident credit.
9. There is no institutional limit to the number of credits that may be acquired through the local credit by examination or portfolio process. However, individual programs may limit the number to 25% of the total credits toward a certificate or degree.

Military Credit

Elective credits may be awarded to students who have completed active-duty military service in accordance with ACE Guide credit use.

Additionally, credits may be granted for formal service schools and the primary MOS/rating as recommended in the Guide to the Evaluation of Education Experiences in the Armed Services prepared by the American Council on Education. Students who wish to use military credit to meet degree requirements should work with an academic advisor to submit a Request for Evaluation of Military Training - JST (https://www.uaa.alaska.edu/students/registrar/registrarforms.cshtml/) or Request for Evaluation of CCAF Credit (https://www.uaa.alaska.edu/students/registrar/registrarforms.cshtml/) (Community College of the Air Force).

Project Lead the Way (PLTW) End-of-Course Exams

Credit may be awarded for successful completion of Project Lead the Way (PLTW) end-of-course assessment exams.

A student desiring credit for a PLTW examination must request that an official report of examination scores be sent to the UAA Office of the Registrar. Credit may be received for more than one PLTW examination.

Test	Min. Score	UAA Equivalent	Credits
PLTW Computer Science Principles	Accomplished or Distinguished	CSCE A101	3
PLTW Computer Science A	Accomplished or Distinguished	CSCE A201	4

Registration

Registration is the process of signing up and paying for classes for a particular semester. Students may attend classes at UAA only after they have properly completed the registration process for the course. Course offerings, dates, times and other important registration details specific to each semester are included in that semester's class listing through UAOnline (https://www.alaska.edu/uaonline/). Not every course listed in this catalog is offered each semester.

It is the responsibility of the student to become familiar with UAA policies, procedures and deadlines. Refer to the academic calendar (https://www.uaa.alaska.edu/students/registrar/calendar/index.cshtml/) for specific deadlines. Students are expected to register only for course sections that they plan to attend and to complete all courses for which they register.

Students may register online in UAOnline (https://www.alaska.edu/uaonline/) or in person during the dates published in the academic calendar. Noncredit, continuing education unit (CEU), and professional development (500-level) courses have unique registration processes; interested students are advised to contact the appropriate school or college for more information.

The university holds students academically and financially responsible for their registration. Students who change their plans or become unable to attend must officially drop or withdraw from their courses within published deadlines in order to avoid a final grade of F for nonattendance. Courses must be dropped within the 100 percent refund period to avoid tuition assessment. Refer to the academic calendar (https://www.uaa.alaska.edu/students/registrar/calendar/index.cshtml/) for specific deadlines.

All students should meet with a faculty or academic advisor prior to registering each semester. Advising can help students clarify their goals, make suitable course selections and understand academic expectations. However, the student is ultimately responsible for meeting university requirements.

Priority Registration

For fall and spring registration, UAA follows a priority schedule for the opening days of registration based on the student's class standing. Class standing is determined by total credits earned. Students can view their class standing in their Student Profile in UAOnline (https://www.alaska.edu/uaonline/). See the academic calendar (https://www.uaa.alaska.edu/students/registrar/calendar/index.cshtml/) each semester for the open registration dates. Registration will open at 12:01 a.m. to each group of students according to the schedule below.

Sequence	Class standing	Credits earned
1	Graduate Students	
2	Seniors	90+ credits
3	Juniors	60-89 credits
4	Sophomores	30-59 credits
5	Freshmen	1-29 credits
6	Open registration (all students)	

Continuing and new degree-seeking students admitted to any UAA campus will register before non-degree-seeking students and students from other UA campuses. Summer registration opens first to all degree-seeking students and then to all others, including non-degree-seeking students.

Add, Drop and Withdrawal Deadlines for Semester-Length Courses

For fall and spring semesters, a two-week add/drop period begins on the first day of the semester. Registration for semester-length courses (15 weeks) is not permitted after the second week of the semester. Even

if students have been attending class from the beginning of the course, their registration will not be accepted after the registration deadline.

Students may adjust their schedules and add or drop courses throughout the add/drop period. Some courses may require instructor approval for this activity. Caution: Dropping, withdrawing, or auditing courses may affect eligibility for current and future financial aid. Students receiving financial aid should check with the UAA Office of Financial Aid before dropping, withdrawing or auditing a course. See Financial Aid (p. 49) for further information.

Students may withdraw from a semester-length course through the 10th week of the semester.

Students must complete business in person before 5 p.m. of the deadline day or by 11:59 p.m. via UAOnline. Please see the academic calendar (https://www.uaa.alaska.edu/students/registrar/calendar/index.cshtml/) for specific dates.

Add, Drop and Withdrawal Deadlines for Courses with Irregular Dates

The add/drop deadline for courses with irregular start or end dates is five business days after the published class start date.

The withdrawal deadline is the posted withdrawal deadline for that semester. For classes starting after the withdrawal deadline, students have the option to drop the class within five business days after the published class start date.

Add, Drop and Withdrawal Deadlines for Summer Courses

The add/drop deadline for any summer course will be one week after the published start date. Caution: Dropping, withdrawing, or auditing courses may affect eligibility for current and future financial aid. Students receiving financial aid should check with the UAA Office of Financial Aid before dropping, withdrawing or auditing a course. See Financial Aid (p. 49) for further information.

Faculty approval will be required for all classes after the first class meeting. Even if space is available, faculty will need to approve a student adding the class.

The withdrawal deadline is the eighth Friday of the 10-week term, and the third Friday of the first and second five-week terms. All other summer courses with a start date prior to June will be held to the first withdrawal deadline; all other summer courses with a start date on or after June 1 will be held to the second withdrawal deadline.

Waitlists

Students may waitlist for courses that are currently full through UAOnline. As space becomes available students will be notified through their preferred e-mail on a first-come, first-serve basis. The timeline in which to register after notification varies from 12- 48 hours, with the time frame shortening as the term start gets closer. Students should check their preferred email daily and at least every 12 hours starting the Friday before classes begin. Students are not billed until registration is complete. Note that only some courses have waitlists.

Registration by Proxy

Students unable to register in person may have a proxy register for them if they provide the proxy with a signed Proxy for Registration form. This form is available upon request from the Registrar's Office. The proxy must follow the policies and calendar governing registration. Proxy registrations are not accepted without written permission from the student.

Auditing Classes

Audit registrations are on a space-available basis. Auditors may be dropped from a class to make room for credit-seeking students. No credit is received for audited courses. Requirements for auditing the course are determined by the faculty. Faculty may withdraw students if they fail to comply with the agreed upon terms.

Caution: Dropping, withdrawing or auditing courses may affect eligibility for current and future financial aid. Students receiving financial aid should check with the UAA Office of Financial Aid before dropping, withdrawing or auditing a course. See Financial Aid (p. 49) for further information.

Students who audit courses are required to meet prerequisites, register and pay the same tuition as those who take the courses for credit. During the first and second weeks of the semester, audit-to-credit requires faculty signature. Neither credit-to-audit or audit-to-credit changes are allowed after the second week of the semester.

Audited courses are not included in the computation of study load for full-time or part-time status. In addition, students may not request local credit by examination for an audited course until the following academic year.

Cancellation of Classes

UAA reserves the right to cancel or combine classes; to change the time, dates or place of meeting; or to make other necessary revisions in class offerings. The university may discontinue a class at any time if enrollment falls below expected levels.

Student-Initiated Drop or Withdrawal

Students may drop a class according to the deadlines found in the academic calendar (https://www.uaa.alaska.edu/students/registrar/calendar/index.cshtml/) each semester. Deadlines are determined by the start date of the class and usually occur within the first two weeks of class (for fall and spring semesters), or are prorated for courses with irregular start and end dates. No grade will be issued for classes dropped by the deadline.

After the deadline for dropping a class, students may withdraw from the class through the 10th week of the semester. This will produce a designation of W for the course on the academic transcript. After such a withdrawal, an academic grade for the course may only be obtained by retaking the course. No tuition is returned to students who withdraw from a class.

Faculty-Initiated Drop or Withdrawal

A faculty member may initiate a drop or withdrawal from a class of a student who fails to meet published individual course requirements (see next paragraph). A student who fails to attend class within the first seven calendar days of the semester start date is also eligible for this action. The deadlines for faculty-initiated drop or withdrawal are the same as for student-initiated drop or withdrawal.

The requirements that a student must meet include all catalog prerequisites and/or corequisites for the course, as well as other registration restrictions and attendance requirements established for the course. Faculty may initiate a withdrawal for a student in audit status for a class according to agreed upon terms.

Faculty are not obligated to initiate a drop or withdrawal for any reason. Students who need to be excused from first-week attendance must contact the faculty member and receive permission before the first class meeting of the semester to avoid a possible faculty-initiated drop or withdrawal.

Request for Late Add or Retroactive Withdrawal

In the event of extenuating circumstances, a student or person with legal authority to act on behalf of a student may submit a Request for Late Add or Retroactive Withdrawal form (https://www.uaa.alaska.edu/students/registrar/registrarforms.cshtml/). Being unaware of university procedures or deadlines or modification of the record for sake of appearance does not constitute justification for a late add or retroactive withdrawal. The university is obligated to ensure the integrity of the transcript as a historical document. Therefore, the transcript must reflect the actual history of the student's experience at the university. Requests are granted rarely and only when extenuating circumstances are documented.

1. Only requests submitted by the student or by a person with legal authority to act on behalf of the student will be considered.
2. The deadline to submit a Request for Late Add or Retroactive Withdrawal Form is no later than one year following the semester end date in which the course was taken. Requests that are not received within this time frame will not be considered.
3. Requests for refunds must be applied for separately by submitting a Petition for Refund form. (https://www.uaa.alaska.edu/about/administrative-services/departments/financial-services/bursar/forms.cshtml/)
4. Decisions will be made solely on supporting documentation provided. In all cases a personal statement from the student is required summarizing the situation and explaining the need for an exception.
5. A request will only be approved if the requester can demonstrate unanticipated and unavoidable circumstances beyond the student’s control. Work-related issues, financial hardship and failure to read UAA’s documents generally do not present justifiable reasons to support an exception request.
6. Requests for reconsideration of an adverse decision must be in writing, provide additional documentation not presented in the original request and be received within 10 working days of the day the decision is emailed or otherwise distributed to the student.

Resident Credit

Resident credit at UAA is credit that is earned in formal classroom instruction, e-learning courses, directed study, independent study or research through any unit of UAA. Credit from an institutionally accredited domestic institution or equivalent institution for which there is an approved affiliation or exchange agreement is also considered resident credit.

In general, credit earned at UAF or UAS is not considered resident credit at UAA. However, if a program is delivered collaboratively with UAF and/or UAS, collaborative program credit from each participating institution is counted toward fulfillment of residency requirements.

Transfer credit, nontraditional credit, military service credit and credit granted through nationally prepared examinations are not considered resident credit, nor are local credit by examination credits earned through locally prepared tests.

Secondary Student Enrollment Policy

UAA is committed to expanding dual enrollment opportunities for all Alaskans. While in high school, secondary students who complete the coursework for a credential through UAA may request to be awarded the certificate or degree through the Earn Degree/Certificate On the Way (https://www.uaa.alaska.edu/students/registrar/registrarforms.cshtml/) application.

Dual enrollment can save students time and money in their future pursuit of post-secondary credentials. It can also provide a smooth transition to the university, as students will be familiar with college-level coursework and expectations. Dual enrollment students must meet the prerequisite requirements for the classes in which they intend to register and meet the regular UAA deadlines, such as for add/drop, payment and withdrawal. Dual enrollment students pay tuition, course, and student fees, and adhere to UAA policies and procedures as outlined in the UAA Catalog and the UAA Student Handbook (https://catalog.uaa.alaska.edu/handbook/).

UAA is excited to offer these opportunities. At the same time, it is important to note that secondary students taking courses at UAA will be building a permanent academic record at the university level. This record will follow the student throughout their career in post-secondary education and can have implications for, among other things, admission to a post-secondary institution, transfer, scholarships, and financial aid eligibility.

The additional processes and policies below apply to all applicants 17 or younger.

Student Parent/Guardian Authorization

The registration process at UAA requires all secondary school student applicants 17 or younger and their parents/guardians to complete a Secondary Student Parent/Guardian Authorization form (https://

www.uaa.alaska.edu/students/registrar/registrarforms.cshtml/). Signing the form signifies understanding of and agreement to the following:

1. The university will not act in a parental or supervisory role. Any UAA-approved secondary school student under the age of 13 must be accompanied at all times and directly supervised by a parent or legal guardian while on a UAA campus;
2. A parent or guardian may not attend a course in which their secondary school student is registered unless and until the parent or guardian is also officially registered for the course. A complete copy of the guidelines and procedures for Children and Minors on Campus can be found in the UAA Student Handbook (https://catalog.uaa.alaska.edu/handbook/);
3. A secondary school student who registers in university courses is fully responsible for complying with all policies and procedures of the university. This includes being aware of and adhering to the university Student Code of Conduct (p. 52) and any registration- or payment-related deadlines.
4. Regardless of age, Family Educational Rights and Privacy Act (FERPA) rights are transferred to the student upon registration. Parents/guardians will not be able to conduct business on students' behalf or access student records without the student first submitting the appropriate release form.

University Determination

The university reserves the right to deny or discontinue the enrollment of a student in a course or courses if the university determines that the student lacks the maturity, legal or intellectual ability, or academic preparedness to participate on an equal footing with other students, or if it is otherwise not in the legitimate interest of the university for the student to participate. Factors that may be considered in such a determination include, but are not limited to, the following:

1. Whether the parents (including guardians) of the student support the student’s enrollment in the course;
2. Whether the course involves high-risk activities for which the university requires a release of claims of all students, in light of the fact that such a release is not enforceable as to a student under the age of 18; and
3. Whether the student can lawfully participate in the course.

Special Programs

Exceptions to the above admission and registration procedures may be made for special academic programs at the department, school, college or campus level.

Certificate and Degree Programs

Secondary school students are not eligible for admission to certificate or degree programs until they earn a high school diploma or GED or otherwise meet University of Alaska Anchorage admission requirements for degree-seeking students. However, secondary school students may request to have certificates or associate degrees that they complete through UAA while in high school awarded through the Earn Degree/Certificate on the Way application (https://www.uaa.alaska.edu/students/registrar/registrarforms.cshtml/).

Transfer Credits

Where possible, transfer credit is equated with UAA courses by matching the content, level of instruction, course activities and student outcomes. Only coursework that clearly and demonstrably satisfies the intent of a UAA General Education Requirement (GER) or college or major requirement can be accepted as a substitute. When this is not possible, evaluators may grant discipline-specific elective credit at the appropriate level. UAA reserves the right to reject transfer credit or to require an examination before credit is allowed. An evaluation of transfer credit occurs after an applicant has submitted a certificate, associate or bachelor’s degree Application for Admission.

Transfer credit equivalents vary among semester, unit and quarter universities. Courses that differ from equivalent UAA courses by 1 credit or less are equated to UAA courses and meet UAA course requirements without requiring a petition. To complete credit requirements where transfer course credits differ from UAA credits by more than 1 credit, students can either take another UAA class or consult an academic advisor about the academic petition (p. 16) process.

Criteria for Acceptance of Transfer Credit

1. Transfer credits from United States institutions are accepted if those institutions are accredited by the higher education commission of one of the following institutional accrediting associations:
   - Higher Learning Commission
   - Middle States Commission on Higher Education
   - New England Commission of Higher Education
   - Northwest Commission on Colleges and Universities
   - Southern Association of Colleges and Schools
   - Western Association of Schools and Colleges
     - WASC Senior College and University Commission (WSCC)
     - Accrediting Commission for Community and Junior Colleges (ACCJC)
2. Only undergraduate college-level courses completed with grades equal to C or higher are considered for transfer.
3. Credits transferred for application to graduate certificates or degrees are subject to additional requirements noted in Graduate Degrees (p. 358).
4. Students who plan to transfer credits from outside the U.S. must provide an official statement of educational equivalence from World Education Services (WES). See the Transfer Credit Evaluation page (https://www.uaa.alaska.edu/students/transfer/international-credit.cshtml/) on the Office of the Registrar's website for additional information.
5. Transfer credits are not included in the student’s UAA grade point average (GPA) computation, except to determine eligibility for financial aid.
6. Challenge examinations, credit by examinations, credit awarded for massive open online courses (MOOCs) and other forms of nontraditional credit will not transfer from another university's

transcript. Students wishing to receive credit at UAA for these must follow Nontraditional Credit Policies (p. 31).

7. Courses from the University of Alaska Fairbanks (UAF) or the University of Alaska Southeast (UAS) are transferred to UAA based on applicability toward degree requirements. They are considered nonresident credits.
8. Credits from institutions that are not accredited by one of the institutional associations listed above are only accepted under special arrangements that may be initiated upon student request. UAA academic departments determine unaccredited course equivalency (such as the Math Department for math courses). Students wishing to pursue such transfers must clearly establish equivalency to UAA courses using evidence obtained from course descriptions, syllabi, texts, assignments, examinations and direct communication between the departmental faculty at UAA and the originating institution.

Transfer of General Education Requirement Credits Within the University of Alaska System

The GERs for baccalaureate degrees from the University of Alaska system are required by university regulation to have a common core of coursework totaling a minimum of 34 credits. These include:

Category	Credits
Written Communication Skills	6
Oral Communication Skills	3
Humanities/Social Sciences/Arts	9
At least 3 credits in the arts	
At least 3 credits in the humanities	
At least 3 credits in the social sciences	
Mathematics (Quantitative Literacy)/Natural Sciences	7
At least 3 credits in mathematics	
At least 4 credits in the natural sciences, including a laboratory	
At least 6 more credits from among humanities, social sciences and arts	6
At least 3 more credits from among mathematics and natural sciences	3
Total	**Minimum of 34 credits**

Credit for coursework successfully completed at one University of Alaska institution toward fulfillment of the GERs at that institution shall transfer toward fulfillment of the same categories at all other University of Alaska institutions. This applies even if there is no directly matching coursework at the institution to which the student transfers. It should be noted that the 34-credit common core is a minimum requirement for general education. An institution may require more than 34 general education credits for its baccalaureate degrees, and transfer students must meet the total requirement at the receiving institution. Transfer of GERs beyond the 34 credits described above will be determined on the basis of individual requirements specified by university catalogs.

In its catalog, each University of Alaska institution specifies the courses that meet the GER categories at that institution and can thus be guaranteed to transfer as described above. See General Education Requirements (GERs) for Baccalaureate Degrees (p. 443) for the table of GER substitutions.

Students who have received a baccalaureate degree from UAS or UAF will be considered as having met UAA's GERs.

Admissions

Office of Admissions

The University of Alaska Anchorage is an open-access public university that serves its communities through a broad range of educational opportunities. Whether taking courses to earn a certificate or degree or for personal enrichment, a student must apply as degree seeking or as non-degree seeking in order to register for courses. There are different requirements and therefore different application forms for each.

- Degree-seeking: For students planning to complete a certificate or degree program. Degree-seeking students are eligible for services like priority registration, academic advising, financial aid, etc.
- Non-degree-seeking/Guest: For personal enrichment and for secondary students wishing to take courses at UAA. Submission of transcripts is not required.

This section of the UAA Catalog includes policies regarding admission requirements, and student rights and responsibilities in the admission process that apply to all applicants. Individual certificate and degree programs may have additional requirements, selective admission criteria or limited space. See Undergraduate Programs (p. 432) for specific undergraduate and post-baccalaureate program requirements. See Graduate Programs (p. 357) for requirements that apply to graduate programs and students. Questions about admission to UAA should be directed to Enrollment Services at (907) 786-1480 or to the student services office at your community campus.

How to Apply

Most applicants will apply using the online application accessible through the Admissions website (http://www.uaa.alaska.edu/admissions/). The application is free for associate, bachelors, certificates, and post-baccalaureate applications. Graduate and doctoral applications are $75. The online application requires payment of any applicable application fee by credit card.

Application Deadlines

Undergraduate application deadlines are as follows:

- Fall Semester - July 15
- Spring Semester - November 15
- Summer Semester - May 1

Graduate programs have varying application deadlines and applicants should carefully review the program's website. International applicants for undergraduate and graduate programs have different application deadlines that are listed on the International Student Services website (https://www.uaa.alaska.edu/students/international-student-services/applying-to-uaa.cshtml/).

Application for Admission After the Deadline

Applications after the deadline will be accepted with an additional $25 application fee where applicable. Deadlines for late applications are:

- Fall Semester - August 15
- Spring Semester - December 15
- Summer Semester - June 15

General Interest/Non-Degree-Seeking Applications

UAA transforms its communities and the State of Alaska through educational opportunities, welcoming all to take classes in person or online at one or more of UAA's campuses. Students who wish to take classes purely for general interest or personal/professional development complete a non-degree seeking application in order to register for courses. Students only have to complete the non-degree seeking application once. If a student later decides to earn a certificate or degree, they will then complete the Application for Admission process.

Non-degree-seeking students may take courses for which they have the prerequisite skills and experience. They are not required to submit transcripts or test scores for admission but may need to provide proof of meeting placement requirements and course prerequisites. Students who wish to register for graduate courses may be required to obtain a department chair's or faculty member's signature and are strongly advised to contact the department at the earliest opportunity.

International students who will need a Form I-20 Certificate of Eligibility for Non-Immigrant (F-1) Student Status must be admitted as degree-seeking students. Those with certain other types of visas, including J-1, B-1 or B-2 visitor visas, F-2 visas, and those on the visa waiver program, can be admitted as non-degree-seeking and enroll in a limited number of credits. See International Student Services (https://www.uaa.alaska.edu/students/international-student-services/) in the Office of Admissions for further details.

Although non-degree-seeking students are not eligible to have transfer credits evaluated or applied, they can get an unofficial estimate of how their credits might transfer by visiting the UAA Transfer Evaluation System (https://tes.collegesource.com/publicview/TES_publicview01.aspx?rid=708d17a6-b166-4213-87b4-d7933dea5c0c&aid=1581208a-72f1-472c-8942-9f7b5b199fcd).

Qualification

To qualify for registration as a non-degree seeking student, an individual must meet one of the following requirements:

- Be at least 18 years old
- Have completed UAA's secondary school student enrollment process (p. 40) described under Academic Standards and Regulations (p. 16)

Students initially admitted as non-degree-seeking who later decide to pursue a UAA certificate or degree must submit an Application for Admission and all required documents and meet corresponding admission requirements for the certificate or degree program. Admission as a non-degree-seeking student does not guarantee future admission to a certificate or degree program. Credits earned as a non-degree-seeking student may be applied to certificate or degree programs as specified in admission to individual programs.

Non-degree-seeking students do not qualify for federal or state financial aid.

Graduate Admissions

All students intending to pursue a graduate certificate or degree must apply for admission. A link to the electronic Application for Graduate Admissions (https://www.uaa.alaska.edu/admissions/apply/graduate.cshtml/) is available from the Office of Admissions website.

Admission Requirements for Graduate Degrees and Certificates

To qualify for admission to the Graduate School, a student must have earned a baccalaureate degree from an institutionally accredited institution in the United States or a foreign equivalent. Students who expect to receive their baccalaureate degree within two semesters may also apply for graduate admission. Admission is granted to applicants who have received their baccalaureate degree and whose credentials indicate an ability to pursue graduate work. Applicants must either have a cumulative grade point average (GPA) of 3.00 (B average on a 4.00 scale) or meet the GPA requirements of the specific graduate program to which they are applying.

All students applying to the Graduate School for master's programs must submit official transcripts showing completion and conferral of all baccalaureate degrees and any transcripts reflecting graduate-level courses. Students applying to doctoral programs who have a previous master's degree must submit a transcript for that degree. Students applying to doctoral programs directly from an undergraduate degree must submit transcripts showing conferral of the baccalaureate degree. (Exception: Students do not need to request transcripts from any University of Alaska campus.) All U.S. and English Canadian official transcripts and credentials must be submitted by the issuing institution directly to the UAA Office of Admissions (https://www.uaa.alaska.edu/admissions/). All final non-U.S. and French Canadian transcripts must be translated and evaluated using World Education Services (http://www.wes.org)(WES) Basic Course-by-Course Evaluation.

Individual graduate programs may also require additional transcripts and/or specific entrance examinations such as the Graduate Record Examination (GRE) or the Graduate Management Admission Test (GMAT). See individual program requirements for details.

Applicants whose native language is not English or whose baccalaureate degree was conferred by an institution where English was not the language of instruction must also submit official test score reports from the International English Language Testing System (https://www.ielts.org/) (IELTS) or Test of English as a Foreign Language (http://www.ets.org/toefl/) (TOEFL). Score reports must be sent directly from the testing agency to the UAA Office of Admissions. Student score reports are not accepted. See International Graduate Students below for more information.

Applications accompanied by appropriate fees, official transcripts and required test scores (if any) must be submitted to the Office of Admissions (https://www.uaa.alaska.edu/admissions/). All of these materials become the property of UAA and are only released or copied for use within the University of Alaska system. Once all required transcripts and test scores have been received, the Office of Admissions will forward each student's admission packet to the dean or department chair or designee for consideration.

Admissions are undertaken by individual graduate programs, then reviewed and approved by the Graduate School. Each graduate program has individual admission standards and document requirements. Additional information such as goal statements, letters of recommendation, research proposals, writing samples and/or personal interviews may be required by specific programs. These materials must be submitted directly to the Office of Admissions and will be forwarded to the individual programs. At the time of admission, students will be assigned an advisor (see Graduate Advisor (p. 360)). All admitted graduate students are expected to attend a formal orientation by their program before the beginning of their first semester of study.

Deadlines for submission of materials vary by program. For programs with rolling (ongoing) admissions, in order to ensure consideration for all financial aid opportunities, it is strongly recommended that eligible students submit:

- For fall admission: all required application forms no later than June 15, and all other required application materials by August 1;
- For spring admission: all required application forms no later than November 1, and all other required application materials by December 1.

Application and Admission Status Definitions

Application Status

- Incomplete Application: An incomplete application is one that is not accompanied by all required documents; generally an application is considered incomplete until all required official transcripts and test scores have been received.
- Pending Application: A pending application has met university requirements and is awaiting departmental recommendation for admission.
- Postponed Application: Students may postpone their applications to a future semester by notifying the Office of Admissions prior to the end of the semester for which they originally applied.
- Withdrawn Before Admission: Students must complete or postpone their admission by the end of the semester for which they have applied. At the end of each semester, all applications still incomplete or not postponed will be withdrawn. Students whose applications have been withdrawn must re-apply for admission if they later choose to attend UAA.

Admission Status

- Complete Admission: All required documents have been received and all admission standards met.
- Incomplete Admission: Students who expect to receive their baccalaureate or master's degree from an institutionally accredited institution within two semesters (three if including summer) may apply for graduate admission. Formal acceptance becomes final only after the baccalaureate or master's degree is completed and conferred, and all other admission requirements are met. All admission requirements must be satisfied prior to advancement to candidacy. Students cannot receive financial aid while in this status.
- Provisional Admission: Students who show potential for success in graduate studies but do not meet all the admission requirements for a program may be provisionally admitted. Provisions and deadlines for meeting those provisions are established at the time of admission and are monitored by the department chair or designee and the Graduate School. Normally, such provisions are to be satisfied within one academic year. If the provisions are not met within the specified deadlines, the student may be removed from graduate degree-seeking status. If the provision is met, the department will indicate the completion on a copy of the Graduate Admission Recommendation Form (GARF) and submit to the Graduate School for final approval.
- Postponed Admission: Upon approval by their program and the Graduate School, students may postpone their admission to a future semester once for up to one year prior to the end of the semester for which they originally applied.
- Withdrawn After Admission: Admission will be withdrawn when students do not attend classes during or postpone their admission before the end of their admission semester. Students whose admissions have been withdrawn must re-apply for subsequent admission to UAA.

International Graduate Students

International students who intend to reside in the U.S. for the purpose of pursuing a certificate or degree as F-1 visa students and need a form I-20 Certificate of Eligibility for Non-immigrant F-1 Student Status must meet university and degree program admission requirements and submit the following:

1. Official TOEFL (minimum score of 79-80 IBT) or IELTS (minimum score of 6-6.5) scores, completed within the last two years and sealed by the issuing agency. International students may request an exception from the language exam requirements if they:
   a. are a native speaker of English, or
   b. have earned a bachelor or master's degree from an institutionally accredited U.S. institution.

2. A notarized affidavit of financial support from the student or the student's financial sponsor and documentation of financial resources to cover one full academic year of study.
3. A completed Admissions Agreement for Prospective F-1 Students.

Alternate documentation of English proficiency may be considered on a case-by-case basis and approved by the program faculty and dean of the college.

The University reserves the right to require additional English proficiency evidence, even from those who are eligible for an examination exemption.

Students who earned their baccalaureate degree outside the U.S. or English-speaking Canada must submit a Basic Course-by-Course Evaluation from World Education Services (WES), stating that they have earned the equivalent of a U.S. baccalaureate degree. Evaluations should be sent directly to the UAA Office of Admissions, 3211 Providence Dr., Anchorage, AK 99508.

Students who have earned multiple bachelor degrees or already hold an advanced degree should contact the program to which they are applying to determine if a WES ICAP is needed for all institutions attended. In some cases, an evaluation only for the previous study most relevant to their UAA program will be needed. These decisions are made by the program faculty and approved by the dean of the college.

Students transferring from other institutions in the U.S. must also complete and submit the F-1 Transfer Eligibility Form.

International students in F-1 visa status must be formally admitted, full-time, degree-seeking students. Health insurance is mandatory. Visit the International Student Services (http://www.uaa.alaska.edu/iss/) website for details and forms.

Western Regional Graduate Program

Students from Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington and Wyoming may be eligible for resident tuition through the Western Regional Graduate Program (WRGP). Graduate students who qualify for WRGP pay the in-state tuition rate on all graduate degree programs, both master's and doctoral. Certificate programs are not eligible. For more information, visit the Graduate School (http://www.uaa.alaska.edu/graduateschool/) website.

Post-Baccalaureate Admissions

Admission Requirements for Post-Baccalaureate Certificates

To qualify for admission to post-baccalaureate certificate programs, a student must have earned a baccalaureate degree from an institutionally accredited institution in the United States or a foreign equivalent. Students who expect to receive their baccalaureate degrees within two semesters may also apply for admission. Applicants must meet the grade point average (GPA) requirements of the specific certificate program to which they are applying.

All certificate students must submit official transcripts showing completion and conferral of all baccalaureate degrees and any transcripts reflecting any courses relevant to the certificate sought. Transcripts are to be requested by the student and must be submitted directly to UAA from the sending institution. Transcripts can be sent directly from the issuing institution to UAA Admissions through a secure electronic service or mailed to the UAA Office of Admissions. Refer to the UAA Office of Admissions transcript page (https://www.uaa.alaska.edu/admissions/apply/transcripts.cshtml/) for more information. (Exception: Students do not need to request transcripts from any University of Alaska campus.) Some baccalaureate programs have additional or more selective admission requirements. See individual program requirements later in this chapter for details.

All U.S. and English Canadian official transcripts and credentials must be submitted by the issuing institution directly to the UAA Office of Admissions (https://www.uaa.alaska.edu/admissions/). All final non-U.S. and French Canadian transcripts must be translated and evaluated using World Evaluations Service's (http://www.wes.org)(WES) International Credential Advantage Package (ICAP) Course-by-Course Evaluation.

Each certificate program has individual admission standards and requirements such as writing samples, goal statements, letters of recommendation, research proposals and/or interviews.

Applications, official transcripts, required test scores (if any) and any additional documents must be submitted to the Office of Admissions (https://www.uaa.alaska.edu/admissions/). All of these materials become the property of the University of Alaska Anchorage and are only released or copied for use within the University of Alaska system.

Deadlines for submission of materials vary by program. No more than 9 credits may be completed in the student's certificate program before program admission. See individual program listings for information. Please note, for programs with rolling (ongoing) admissions, in order to ensure consideration for all financial aid opportunities, it is strongly recommended that eligible students submit:

- For spring admission, all required application forms no later than November 1, and all required application materials by December 1;
- For summer admission, all required application forms no later than May 1, and all required application materials by July 1;
- For fall admission, all required application forms no later than June 15, and all required application materials by August 1.

International Post-Baccalaureate Certificate Students

International students who intend to reside in the United States for the purpose of pursuing a UAA certificate as an F-1 visa student and who need a Form I-20 Certificate of Eligibility for Non-Immigrant F-1 Student Status, must fully meet University and program admission requirements before a Form I-20 will be issued.

International students in F-1 visa status must be formally admitted, full-time, degree-seeking students. Health insurance is mandatory. Visit

the International Student Services web site (http://www.uaa.alaska.edu/iss/) for details and forms.

Application and Admission Status Definitions for Post-Baccalaureate Certificate-Seeking Students

Application Status

- Incomplete Application: An incomplete application is one that is not accompanied by all required documents; generally, an application is considered incomplete until all required official transcripts and test scores have been received.
- Pending Application: A pending application has met university requirements and is awaiting departmental recommendation for admission.
- Postponed Application: Students may postpone their applications to a future semester by notifying the Office of Admissions prior to the end of the semester for which they originally applied.
- Withdrawn Before Admission: Students must complete or postpone their admission by the end of the semester for which they have applied. At the end of each semester, all applications still incomplete or not postponed will be withdrawn. Students whose applications have been withdrawn must re-apply for admission if they later choose to attend UAA.

Admission Status

- Complete Admission: All required documents have been received and all admission standards met.
- Incomplete Admission: Students who expect to receive their baccalaureate from an institutionally accredited institution within two semesters (three if including summer) may apply for post-baccalaureate admission. Formal acceptance becomes final only after the baccalaureate degree is completed and conferred, and all other admission requirements are met. Students cannot receive financial aid while in this status.

Secondary Student Admissions

UAA is committed to expanding dual enrollment opportunities for all Alaskans. Secondary (high school) students interested in taking UAA courses for credit while still in high school follow the procedures listed on the Secondary Student Enrollment Policy (p. 40) page in Academic Standards & Regulations (p. 16).

Undergraduate Admissions

To meet Alaska's higher education needs and to serve all Alaskans, from first-time college students to working professionals, UAA's undergraduate programs range from short-term certificates to traditional two-year and four-year degrees. UAA offers the following undergraduate degree types: Occupational Endorsement Certificate, Certificate, Associate and Baccalaureate Programs. Below is information about program qualifications, application, and admission.

Admission Status Definitions

- Admitted: All required documents have been received and all admission standards met. Students can receive any financial aid for which they are eligible in admitted status and register for future terms.
- Admitted Incomplete (Accepted): In-progress transcripts have been received, but required final documents have not.
  - Applicants may enroll for their first semester while in this status, but cannot register for a subsequent semester.
  - Applicants who have not provided all required documents before registration for the following semester will have their application for admission withdrawn.
  - Students cannot receive financial aid while in this status.
- Postponing Application: Applicants who do not attend may postpone the application once for up to one year by notifying the Office of Admissions prior to the deadline.
- Withdrawing Application: Applications will be withdrawn if applicants:
  - do not attend classes during the semester for which they applied or postpone their application by the deadline, or
  - do not provide all required documents before registration for the following term.

Program Qualifications

Occupational Endorsement Certificate

To qualify for admission to an OEC program, a student must meet one of the following requirements:

- Have earned a high school diploma or U.S. GED, or
- Meet one of the options under Admission for Non-High School Graduates.

Not all OEC programs are approved for financial aid.

Associate and Certificate Programs

To qualify for admission to an undergraduate certificate or associate degree program, a student must:

- Have earned a high school diploma or U.S. GED, or
- Meet one of the options under Admission for Non-High School Graduates.

There is no minimum grade point average (GPA) requirement for certificate and associate level admission.

Baccalaureate Programs

To qualify for admission to baccalaureate programs, a student must:

- Have earned a high school diploma or U.S. GED, or meet one of the options under Admission for Non-High School Graduates or Special Information for Home School Applicants.
- High school GPA of at least 2.50 or
- Cumulative college GPA of at least 2.00 (must have 24 earned credits).

Applicants not meeting the GPA requirements above may be admitted to certain baccalaureate programs on probation.

- High school graduates with a GPA of 2.00 through 2.49
- Transfer students with a collegiate GPA of 1.75 through 1.99.

Applicants with lower GPAs will be offered admission to the Associate of Arts program.

For students in high school at the time of application, the admission decision will be based on the high school GPA. If the student has more than 24 college-level credits and would like to have the college GPA reviewed as part of the admission process, contact the Office of Admissions. Transcripts for all college-level coursework are required to complete the application file.

Some programs have additional admission requirements, selective admission criteria or limited space. See Undergraduate Programs (p. 432) *for specific program information.*

Applying for Admission

To apply for admission to an undergraduate program, please submit the following:

1. A (https://uaonline.alaska.edu/banprod/owa/bwskalog.P_DispLoginNon/)pplication for admission (https://www.uaa.alaska.edu/admissions/apply/index.cshtml/)
2. Official high school transcript or U.S. GED scores showing either graduation or enrollment in final year of high school (if fewer than 24 college level credits).
   a. Home school applicants should review the Home School Applicant - Special Instructions below.
   b. Students who did not graduate from high school or do not hold a GED should refer to the Admission for Non-High School Graduates below.
3. College or university transcripts from all institutionally accredited or foreign institutions attended (except University of Alaska campuses). This is required of all applicants who have completed at least one college-level course.
   a. Students currently in college should submit a current or in-progress transcript at the time of application.
   b. An official final transcript is required after completion of the term or graduation showing final grades and/or a graduate date for any college-level courses taken;
   c. The Office of Admissions will automatically retrieve records for courses taken at other University of Alaska campuses and via University of Alaska distance education.

An Undergraduate Application for Admission is complete when all required items listed above are received. For students who have attended another college or university, a admission decision will be made once transcripts are received and reviewed by the Office of Admissions. Any substantial change in academic performance, including failure to graduate, which occurs after admissions to UAA, may lead to revocation of admission to UAA. This will also lead to the immediate termination and repayment of financial aid.

Test scores are not used as part of the admissions decision for most programs. The University of Alaska uses placement exams as part of UAA's advising and registration process to determine course placement. Scores must be sent to the UAA Office of Admissions (https://www.uaa.alaska.edu/admissions/apply/index.cshtml/) directly from the testing agency.

All transcripts, test scores and other supporting documents submitted for admission or transfer credit evaluation become the property of the University and are only released or copied for use within the University of Alaska system. They cannot be reissued, copied, or returned to the student.

Home School Applicants - Special Instructions

UAA welcomes applicants from home school environments. UAA can accept transcripts from home schools that meet the requirements of their state department of education.

Applicants from home schools within the state of Alaska should submit an official transcript that includes:

- the name and physical address of the home school or a school-affiliated organization,
- all course work, credits, and grades earned,
- educator's signature,
- graduation date on a final transcript or anticipated graduation date on a partial transcript.

Applicants from home schools outside Alaska must provide:

- an official transcript as described above,
- the home school requirements of their state department of education, and
- proof that the home school meets their state's requirements.

If this documentation is not available or an applicant does not meet the home school admission requirements, UAA offers several alternative paths to admission. For more information, see section Admission for Non-High School Graduates.

Non-High School Graduates - Special Instructions

UAA has three paths to admission for applicants who have not graduated from high school:

1. Provide proof of high school graduation equivalency. UAA accepts U.S. GED, HiSET, or a high school equivalency test that is recognized by the state in which the applicant resides.
2. Pass an Ability to Benefit test administered by the UAA Testing Center (https://www.uaa.alaska.edu/students/testing/index.cshtml/). Applicants admitted with the Ability to Benefit will be eligible for financial aid only if they have completed at least 6 hours of college-level coursework before July 1, 2012.
3. Provide an academic transcript documenting successful completion of an Associate of Arts program.

International Students - Special Instructions

International students who intend to reside in the United States for the purpose of pursuing a UAA certificate or degree as an F-1 visa student and who need a Form I-20 Certificate of Eligibility for Non-Immigrant F-1 Student Status, must fully meet University and program admission requirements before a Form I-20 will be issued.

International students in F-1 visa status must be formally admitted, full-time, degree-seeking students. Health insurance is mandatory. Visit the International Student Services web site (http://www.uaa.alaska.edu/iss/) for details and forms.

To qualify for admissions as an international student:

1. Fulfill the UAA application requirements for the selected program of study.
   a. All non-U.S. and French Canadian transcripts must be translated and evaluated using World Education Service's (http://www.wes.org)(WES) International Credential Advantage Package (ICAP) or Basic Course-by-Course Evaluation.
   b. All U.S. and English Canadian official transcripts and credentials must be submitted by the issuing institution directly to the UAA Office of Admissions (http://www.uaa.alaska.edu/admissions/contact_us.cfm).
2. Meet the following English language proficiency standards:
   a. A TOEFL score of 71, or
   b. An IELTS score of 6.0, or
   c. A Duolingo English Test Overall Score of 105, or
   d. A Pearson Test of English PTE-A Overall Score of 52, or
   e. Have an approved exemption from the English language proficiency standards.
3. Submit an Affidavit of Financial Support (http://www.uaa.alaska.edu/international-student-services/forms/) from the student or the student's financial sponsor and documentation of financial resources to cover one full academic year of study. Loss of financial sponsorship while enrolled at UAA may result in the student being advised to exit the U.S.
4. Students transferring from other institutions in the U.S. must complete the F-1 Transfer Eligibility Form (https://www.uaa.alaska.edu/students/international-student-services/forms.cshtml/).

Official test score reports from the International English Language Testing System (https://www.ielts.org/) (IELTS), Test of English as a Foreign Language (http://www.ets.org/toefl/) (TOEFL), Duolingo English Test (https://englishtest.duolingo.com/applicants/), or the Pearson Test of English (https://www.pearsonpte.com/) must be sent directly from the testing agency to the UAA Office of Admissions. Student score reports are not accepted.

International students may request an exemption from the language exam requirements if they:

- have earned a bachelor's or master's degree from an institutionally accredited U.S. institution.
- have earned a grade of C or better in a course equivalent to WRTG A111 or higher at an institutionally accredited U.S. institution, or
- are a native speaker of English.

The Office of Admissions reserves the right to require additional English proficiency evidence, even from those who are eligible for an examination exemption.

UAA may not issue an I20 to International students that have previously not made satisfactory academic progress or based on their current immigration status.

All academic credentials, WES transcript evaluations, affidavits of support and financial documentation should be sent directly to the UAA Office of Admissions, 3211 Providence Dr., Anchorage, AK 99508.

Transcripts

Transcripts are required for students who have attended or completed university work at an institutionally accredited institution. Additionally, final high school transcripts may be required for admissions to specific degree programs.

It is the applicant's responsibility to request required transcripts. The UAA Office of Admissions cannot request transcripts from high schools or other colleges or universities.

Students should send official transcripts to the UAA Office of Admissions (https://www.uaa.alaska.edu/admissions/apply/index.cshtml/) electronically, via mail or via courier service. Hand-carried transcripts must be in the original sealed envelope from the issuing institution. Faxed transcripts are not accepted as final transcripts.

All transcripts, test scores and other supporting documents submitted for admission or transfer credit evaluation become the property of the University and are only released or copied for use within the University of Alaska system. They cannot be reissued, copied or returned to the student.

General Undergraduate Admission Information

Pre-Majors/Exploratory Majors

Students applying to programs with selective admission criteria or limited space may initially be admitted to a pre-major status. Admission to pre-major status does not guarantee subsequent admission to the major. Students are advised to contact their program advisor at the earliest opportunity for further information about the program's special requirements and for guidance in selecting appropriate preparatory classes.

Students admitted to pre-major status must satisfy all requirements for formal admission to the major and then complete the change of major (http://www.uaa.alaska.edu/records/registrarforms.cfm) process. Such changes will not affect a student's degree requirements or catalog year.

Students admitted to the exploratory major must satisfy all requirements for formal admission to a major and then complete the change of major (http://www.uaa.alaska.edu/records/registrarforms.cfm) process. A

change of major from the exploratory major to an official degree or certificate program will initiate a new catalog year.

Change of Major, Degree, Admission Level and Concurrent Degrees

Once formally admitted and in attendance, students may request a change of major, or change degree programs at the same level or a lower level, to another program through the change of major (https://www.uaa.alaska.edu/students/registrar/) process. Students admitted initially in the exploratory major may also declare a major through this process. Students must meet the specific admission requirements of the desired program and follow the change of major (https://www.uaa.alaska.edu/students/registrar/) process. No fee is required for this process.

To change from a baccalaureate level program to a certificate/associate level program, a student must follow the change of major (https://www.uaa.alaska.edu/students/registrar/registrarforms.cshtml/) process. If a student later decides to complete a baccalaureate program, they will need to reapply for admission.

To change from a certificate/associate level program to a baccalaureate level program, a student must reapply for admission and meet all the requirements for the new admission level.

Students may pursue concurrent UAA degrees as long as they have formally applied and been accepted to each program. For more information, see Undergraduate Policies (p. 442).

Attendance

Students must enroll in courses and attend during the semester in which they are admitted. Applications for those not in attendance or postponed will be withdrawn.

Length of Admissions

Once formally admitted and in attendance (students must enroll in courses and attend during the semester in which they are admitted), students remain admitted to the institution:

- as long as the catalog is active, and
- there is not a break in attendance of 2 years, and
- they have not been academically disqualified.

For more information, see Change of Major or Degree, or Returning to UAA After a Break in Enrollment.

Returning to UAA After a Break in Enrollment

Undergraduate students who discontinue their enrollment at UAA for two years or less remain admitted and may register for courses during normal registration periods. If applicable, they must submit official transcripts from institutions attended during their absence for transfer credit evaluation.

Admission to the University and academic program(s) is automatically canceled for undergraduate students who do not attend UAA for two years or more. To return to UAA, students must complete a new application for admission and, if admitted, will be required to follow the program and graduation requirements under the new catalog year.

Reapplying After Academic Disqualification or Removal from Program

Procedures for students academically disqualified can be found under Academic Standing (p. 19).

Advising and Academic Support

Academic advising guides students in developing plans for timely progression toward certificate and/or degree completion. Advising also engages students in the developmental process of clarifying academic, career and life goals consistent with students' interests, values and abilities. Through meetings with advisors, students also learn about campus and community resources that promote student success.

Detailed information on advising requirements, locations and advisor assignments can be found through each campus' advising website, as follows:

- UAA Anchorage (https://www.uaa.alaska.edu/academics/advising/)
- Kenai Peninsula College (https://kpc.alaska.edu/academics/academic-resources/academic-advising/index.cshtml/)
- Kodiak College (https://koc.alaska.edu/get-started/advising/)
- Matanuska-Susitna College (https://matsu.alaska.edu/offices/student-services/academic-advising.cshtml/)
- Prince William Sound College (https://pwsc.alaska.edu/academics/academic-advising.cshtml/)

Financial Aid

Office of Financial Aid (http://www.uaa.alaska.edu/students/financial-aid/)
(907) 786-1480

Financial aid is available to qualified students at the University of Alaska Anchorage. Financial aid is any grant, scholarship, employment opportunity or loan with the express purpose of assisting students with expenses related to their education. The main sources of financial aid are the federal government, state government, private organizations and the University of Alaska. Types and amount of financial aid vary according to federal and state guidelines, student needs, and availability of funds. For detailed descriptions of available financial aid programs, eligibility requirements and application procedures, please visit the Office of Financial Aid website (https://www.uaa.alaska.edu/students/financial-aid/).

Federal Financial Aid Application Procedures

Students interested in receiving financial aid to help fund their UAA education should apply at least six months before the beginning of the semester for which they plan to attend in order to allow sufficient processing time. Basic procedures are as follows:

1. New students must apply for admission to UAA through the Office of Admissions (https://www.uaa.alaska.edu/admissions/) by the appropriate deadline.
2. Submit a Free Application for Federal Student Aid (http://www.fafsa.gov/) (FAFSA) online. Application opens up each year on October 1st for the following award year. Be sure to include UAA's school code: 011462.
3. Submit any additional documentation, if requested, to the Office of Financial Aid (https://www.uaa.alaska.edu/students/financial-aid/). The U.S. Department of Education and the Office of Financial Aid selects certain applicants for a verification process. Students selected for verification must submit requested documents; if they are not received, federal financial aid cannot be awarded. Certain types of state and institutional aid also require verification to be complete before awarding and/or disbursement can occur.
4. Students who wish to apply for UAA scholarships may complete an online application available on UAOnline (https://uaonline.alaska.edu/).
5. Students who wish to apply for Bureau of Indian Affairs (http://www.bia.gov/) grants or scholarships should contact the BIA or their Native regional corporation for applications.
6. For more detailed instructions, see the financial aid checklist available from the Office of Financial Aid.

Financial Aid Eligibility

To receive most financial aid, including all federal aid, a student must:

1. Be fully admitted to an eligible degree or certificate program;
2. Demonstrate financial need for federal assistance as determined by the FAFSA (except for certain loan programs);
3. Meet Satisfactory Academic Progress (https://www.uaa.alaska.edu/students/financial-aid/eligibility-responsibilities/satisfactory-academic-progress.cshtml/) as defined by student financial aid regulations;
4. Have a high school diploma or its equivalent;
5. Be a U.S. citizen or eligible noncitizen;
6. Have a valid Social Security number;
7. Certify that they are not in default on a federal student loan and do not owe money on a federal student grant;
8. Certify that they will use federal student aid only for educational purposes; and
9. Enroll in degree-applicable credits.

Types of Financial Aid

Grants

Grants are financial aid awards that do not need to be repaid as long as the student meets academic progress requirements of the granting agency.

Federal Pell Grant

The Federal Pell Grant makes funds available to eligible students with financial need. In addition to the eligibility criteria above, to be eligible for a Federal Pell Grant, students must not have earned their first baccalaureate degree or have used more than 12 full-time equivalent semesters of Federal Pell Grants during their lifetime.

Federal Supplemental Educational Opportunity Grant (FSEOG)

The FSEOG program is similar to the Federal Pell Grant program and can provide additional assistance to students with financial need and who are eligible for the maximum Federal Pell Grant. FSEOG funds are limited, so we encourage students to submit their FAFSA as early as possible.

Alaska Education Grant (AEG)

AEG is a need-based grant offered by the State of Alaska. The deadline to apply is June 30th. Funding is limited, so we encourage students to apply as early as possible. For more information, including eligibility criteria, visit ACPE's website (http://acpe.alaska.gov/FINANCIAL_AID/Grants_Scholarships/Alaska_Education_Grant/).

Bureau of Indian Affairs (BIA)

The BIA makes grants available to eligible full-time students. Applicants must be at least one-quarter Alaska Native or American Indian. For further information, contact the local BIA area office or the Native regional corporations.

Scholarships

Institutional Scholarships

Scholarships are usually awarded for academic achievement or talent. Students interested in applying for institutional scholarships should do so via UAOnline (https://uaonline.alaska.edu/). Students should visit the UAA scholarship website (https://www.uaa.alaska.edu/students/financial-aid/types-of-aid/scholarships/) for additional information and to view scholarship listings. Students should also check with their academic department regarding departmental scholarship opportunities.

Alaska Performance Scholarship (APS) (http://acpe.alaska.gov/FINANCIAL_AID/Grants_Scholarships/Alaska_Performance_Scholarship/)

The APS is a state scholarship that provides an opportunity for Alaska high school students to receive help covering the cost of an Alaska postsecondary education. Alaska high school students who take a rigorous curriculum, get good grades and score well on college placement or work ready exams can earn an APS for use at UAA. Students can receive the APS for a maximum of eight semesters within six years of graduation from high school. Continued eligibility is based on academic progress, enrollment status, other need-based financial aid resources, cost of attendance and minimum GPA requirements. Students must complete a FAFSA every academic year by the state's June 30 deadline.

Private Scholarships

Private scholarships are provided by donors outside of the university. Such awards may range from a few hundred dollars given by a local service organization to several thousand dollars awarded by a foundation. The Internet is one of the best ways to find private scholarship opportunities. There are free scholarship

search engines and private scholarship opportunities listed on UAA's scholarship website (https://www.uaa.alaska.edu/students/financial-aid/scholarships/private.cshtml/). Private scholarships are sent to the Office of the Bursar and are applied to student accounts.

Loans (https://www.uaa.alaska.edu/students/financial-aid/types-of-aid/loans.cshtml/)

Student loans are designed to help students pay for educational costs such as tuition, fees and related living expenses. As with any loan, students should be conservative and only borrow what they absolutely need. Student loans must be repaid with interest, under the terms of the master promissory note (MPN). Education loans come in three major categories: federal student loans, federal loans for parents, and private alternative loans. For more information on student loans, visit the Office of Financial Aid website (https://www.uaa.alaska.edu/students/financial-aid/).

Federal Direct Loans

The Direct Loan Program enables students to borrow directly from the U.S. Department of Education. To qualify, a student must complete the FAFSA. Students must be enrolled at least half-time in order to receive a disbursement. The Office of Financial Aid website lists other eligibility requirements (https://www.uaa.alaska.edu/students/financial-aid/eligibility-responsibilities/).

- Federal Subsidized Student Loan: This is a need-based loan in which the federal government pays the interest while the student is attending postsecondary education at least half-time and for six months after graduation or after the student leaves school. There are annual and aggregate (i.e., lifetime) limits on subsidized student loans, including a limit on students receiving subsidized loans for a time period greater than 150% of the time required to complete their degree program.
- Federal Unsubsidized Student Loan: This loan is not a need-based loan, meaning that all eligible students qualify regardless of financial need. Interest accumulates on these loans from the time they are disbursed to the student's account. There are annual and aggregate (i.e., lifetime) limits on unsubsidized student loans.
- Federal Direct PLUS Loan for Graduates: PLUS loans are federal loans that graduate or professional degree students can use to help pay educational expenses. The maximum loan amount is the student's cost of attendance minus other financial aid received.

Federal Direct Parent PLUS Loans

Parents can borrow for their dependent student’s educational costs. The maximum loan amount is the student's cost of attendance minus other financial aid received. Completion of the FAFSA is required to borrow a PLUS loan. The interest on the PLUS loan begins to accrue with disbursement. Payments usually begin 60 days after the loan is fully disbursed.

Alternative Private Loans

An alternative private loan is a personal loan from a bank that is used for educational expenses. These loans are often used as a supplement to a student's existing financial aid package so Federal Direct Loans should be maximized before applying for an alternative private loan. Many alternative loans may be deferred until graduation; some may require interest payments while the student is still enrolled. Interest rates, origination fees, repayment options, and other terms and conditions of alternative private loans will vary so it's important that students research alternative private loan options carefully. Once a lender is selected, the student must complete an application and MPN for each alternative loan requested.

Satisfactory Academic Progress (SAP)

In order to receive financial aid from any of the federal, state or institutional aid programs, a student must maintain satisfactory academic progress (SAP). SAP requirements include minimum cumulative GPAs, minimum cumulative completion ratios, and completion of a degree or certificate within a maximum time frame. For more information and specific requirements view the Satisfactory Academic Progress (SAP) website (https://www.uaa.alaska.edu/students/financial-aid/eligibility-responsibilities/satisfactory-academic-progress.cshtml/).

Financial Aid SAP Appeal Policy

Students with extenuating circumstances who wish to appeal for reinstatement of their financial aid must provide sufficient evidence to support their assertion that unusual circumstances prevented them from maintaining satisfactory academic progress. As part of the appeal process, students must meet with an academic advisor and have a degree plan created. If the appeal is approved, the student is placed on financial aid probation and must comply with the requirements of their academic plan, which includes maintaining a 100 percent term completion ratio (i.e., successfully completing all classes attempted) and a term GPA over 2.00 for undergraduate students or 3.00 for graduate students. Failure to meet the terms of this academic plan will result in the loss of financial aid eligibility.

For more information, visit the Satisfactory Academic Progress (SAP) website (https://www.uaa.alaska.edu/students/financial-aid/eligibility-responsibilities/satisfactory-academic-progress.cshtml/) and scroll down to the Appeal SAP section.

Return of Federal Financial Aid Policy

Students earn a portion of their financial aid every day they're enrolled in the semester. Students who withdraw from all classes prior to completing over 60 percent of the semester will have their financial aid eligibility recalculated based on the percent of the term completed. A student thinking about withdrawing from classes should contact the Office of Financial Aid to see how the withdrawal will affect their current and future aid eligibility.

Students who drop all of their courses before the end of the add/drop period (also known as the financial aid census date) are not eligible for any financial aid unless they submit documentation of their attendance certified by their instructors.

For more information see the Total Withdrawal policy on the Financial Aid Return of Title IV Funds website (https://www.uaa.alaska.edu/

students/financial-aid/eligibility-responsibilities/return-title-iv-funds.cshtml/).

Military & Veterans Student Services

(907) 786-6962

UAA provides training to veterans, service members and eligible dependents of veterans. Students who plan to use the Department of Veterans Affairs (DVA) educational benefits must notify the UAA Military & Veteran Student Services (http://www.uaa.alaska.edu/students/veterans/) team by submitting an online request for certification (https://www.uaa.alaska.edu/students/veterans/va-forms.cshtml/). Students using DVA educational benefits must apply for admission to a degree or certificate program at UAA. In accordance with federal regulations, UAA must report this information to the DVA, along with information regarding students' enrollment, grades, academic progress, and eligible tuition and fee rates if the student is using the Post 9-11 G.I. Bill®. Only coursework that is applicable to the student's current degree or certificate program is eligible for funding under DVA programs.

DVA students with previous college or university experience must have official transcripts on file with the university. Each student must request these transcripts from each previous institution when applying for admission to UAA. DVA may withhold benefits until this requirement is satisfied.

GI Bill® is a registered trademark of the U.S. Department of Veterans Affairs (VA). More information about education benefits offered by VA is available at the official U.S. government Web site at https://www.benefits.va.gov/gibill (https://www.benefits.va.gov/gibill/)

Student Freedoms, Rights and Responsibilities

UAA encourages people of all ages to develop their skills and talents according to their individual abilities and interests so that, collectively, they contribute to the continuum of democracy. University policies, procedures and regulations are formulated to guarantee each student's freedom to learn and to protect the rights of others.

The concept of rights and freedoms, no matter how basic or widely accepted, carries with it corresponding responsibilities. Students, as well as other members of the university community, enjoy the same constitutional and civil rights guaranteed all citizens. At the same time, they are subject to the laws of the nation, the state of Alaska and the local community. All members of the university community have a responsibility to protect and maintain an academic climate in which the freedom to learn can be enjoyed by all. To this end, certain basic regulations and policies have been developed to govern the behavior of students as members of the university community.

Students are responsible for knowing UAA policies, procedures, and deadlines which pertain to them. A summary of academic policies, regulations, and deadlines pertaining to students is located in the UAA Catalog (p. 16). A broader summary of policies and regulations pertaining to students is in the UAA Student Handbook (https://catalog.uaa.alaska.edu/handbook/), which also contains descriptions of students' freedoms, rights and responsibilities. Students may also obtain a copy of University of Alaska Board of Regents' Policies and University Regulations (http://www.alaska.edu/bor/policy-regulations/).

Student Code of Conduct and Student Conduct Review Procedures

Student Code of Conduct

As with all members of the university community, the University requires students to conduct themselves honestly and responsibly and to respect the rights of others. Students may not engage in behavior that disrupts the learning environment, violates the rights of others or otherwise violates the Student Code of Conduct (Code), university rules, regulations, or procedures. Students and student organizations will be responsible for ensuring that they and their guests comply with the Code while on property owned or controlled by the University or at activities authorized or sponsored by the University. The Student Code of Conduct (https://catalog.uaa.alaska.edu/handbook/student-freedoms-rights-and-responsibilities/student-code-of-conduct/) may be found online in the UAA Student Handbook (https://catalog.uaa.alaska.edu/handbook/).

Student Conduct Review Procedures

A student conduct procedure is a review undertaken by the University to establish whether there is substantial information to determine if it is more likely than not that a student violated the Code. A complete copy of the Student Conduct Review Procedures (https://catalog.uaa.alaska.edu/handbook/complaint-procedures-uaa/student-misconduct-and-academic-dishonesty/student-conduct-review-procedures/) can be found in the UAA Student Handbook (https://catalog.uaa.alaska.edu/handbook/).

Student Dispute/Complaint Resolution Process

UAA affirms the right of all students to request, through fair and timely dispute resolution procedures, the review of decisions that adversely affect them. Students are encouraged to first attempt to resolve the dispute informally. If the student's concern remains unresolved after following informal procedures, students have recourse to a range of dispute resolution processes, depending on the type of concern. Academic Dispute Resolution Procedures can be found under Academic Rights of Students (p. 16). Non-academic procedures can be found in the UAA Student Handbook (https://catalog.uaa.alaska.edu/handbook/).

Student Dispute/Complaint Resolution - External Agencies

Most external agencies require that the student exhaust avenues of dispute/complaint internal to the institution, before the external agency will consider a dispute/complaint.

Students residing outside of Alaska while attending UAA who are not satisfied with the outcome of a UAA dispute resolution procedure

can find guidance on UAA's State Authorization Distance Student Complaint Process (https://www.uaa.alaska.edu/academics/office-of-academic-affairs/uaa-state-authorization/disclosures-student-complaints.cshtml/). As per the process, students may contact the state regulatory agency below.

> Alaska Commission on Postsecondary Education *(*https://acpesecure.alaska.gov/*) (ACPE)*
> *PO Box 110505*
> *Juneau, AK 99811-0505*

Students, whether in-person or distance, may also contact UAA's institutional accrediting body:

> Northwest Commission on Colleges and Universities *(*http://www.nwccu.org*/) (NWCCU)*
> *8060 165th Ave. NE, Suite 200*
> *Redmond, WA 98052*

Tuition and Fees

2025-2026 Tuition Summary

There are additional tuition costs associated with specific UAA programs. See the Tuition Surcharge section below for additional information. Auditors pay the same tuition and fees as students registering for credit.

Undergraduate: Preparatory and Lower-division

(Course numbers A050–A299)

Resident (all campuses)	$241 per credit hour
Nonresident[1] (all campuses)	$841 per credit hour

Undergraduate: Upper-division

(Course numbers A300–A499)

Resident (all campuses)	$290 per credit hour
Nonresident[1] (all campuses)	$890 per credit hour

Professional Development

(Course numbers A500–A599)

Tuition costs vary; contact the department or refer to specific course listing on UAOnline. Nonresident fees do not apply.

Graduate

(Course numbers A600–A699)

Resident	$528 per credit hour
Nonresident[1]	$1,128 per credit hour

[1] *Nonresident students are assessed non-resident tuition on all academic credits including self-support, except A500-A599 level credits. Non-resident tuition is waived for fully online UAA courses.*

Nonresident Tuition

Board of Regents Regulation R05.10.050

1. For the purpose of tuition assessment, a resident is a United States citizen or eligible non-citizen who, at the end of the add/drop period for regular semester-length courses, is physically present in Alaska with the intent to remain in the state indefinitely; has maintained the person's domicile in the state for at least the 12 consecutive months preceding the end of the drop/add date; and is not claiming residency, or obtaining benefits under a claim of residency, in another state, territory, or country. In this definition, "eligible non-citizen" shall have the same meaning as that term is used in determining eligibility for federal student financial aid. To prove physical presence in Alaska, a student must be physically present in Alaska and provide at least one of the following:

   a. Documentation that the student moved household goods to Alaska at least 12 months ago;

   b. Documentation of the lease, rental, or ownership of real property in Alaska for at least the prior 12 months;

   c. Documentation of permanent employment in Alaska for at least the prior 12 months; or

   d. Other indicia of Alaska residency for the twelve months deemed satisfactory by the university chief enrollment officer or designee.

Proof that the student has received or has been qualified by the State of Alaska Permanent Fund Dividend Division to receive an Alaska Permanent Fund Dividend within the last 12 months creates a presumption of residency for purposes of tuition assessment.

Students applying for resident tuition assessment must file an application for resident tuition with the appropriate university admissions office prior to the published end of the add/drop period for regular semester-length courses for the semester for which residency is sought. Failure to file and provide adequate proof of physical presence by this date will waive any claim that the student was eligible for resident tuition assessment for that semester or prior semesters unless otherwise determined by the university chancellor or designee. Applicants with prior documented Alaska residency will be granted a 60-day extension to the above deadline to prove their residency.

2. Notwithstanding the provisions of subsection 1 above, a student will not qualify as a resident for purposes of this regulation if:

   1. during the 12 months of claimed residency, the student was absent from Alaska for an aggregate of more than 90 days, other than documented absences due to illness, or attendance at another educational institution while maintaining Alaska residency;

   2. during the 12 months of claimed residency, the student did any act inconsistent with Alaska residency such as claiming residency in another state or voting as a resident of another state, or currently retaining a driver's license in another state;

3. during the 12 months of claimed residency, the student has registered as a resident in an educational institution in another state.

The following are exceptions to the residency requirement for resident tuition and are to pay at resident tuition rates:

1. Active duty members of the United States Military; their spouses and dependents; members of the National Guard and Reservists; their spouses and dependents; and United States Veterans eligible for Veterans Administration education benefits; their spouses and dependents. (For purposes of United States active duty military and individuals receiving VA benefits, their eligibility for in-state tuition and fees shall be consistent with Regents' Policy or requirements to maintain approval for VA education benefits under applicable law, whichever is more favorable.).
2. Residents of other states or provinces (e.g., Yukon Territory) for as long as those other states or provinces have a reciprocal agreement exempting/waiving nonresident tuition rates for Alaska residents.
3. Participants of the University of Alaska College Savings Plan, the John Hancock Freedom 529, and the T. Rowe Price College Savings Plan, who meet eligibility criteria as may be established by the Education Trust of Alaska.
4. Students designated by the UA Scholars Program as UA Scholars for a period of 12 months after UA Scholars designation.
5. Students that graduated within the past 12 months from a qualified Alaska high school. "Qualified Alaska high school" shall have the same meaning used to determine eligibility for the UA Scholars Program.
6. Spouses or dependent children of UA employees.
7. Students who have a parent, step-parent or grandparent (natural or adoptive) currently living in Alaska that qualifies as an Alaska resident (also known as the "Come Home to Alaska" program).
8. Students participating in the Western Interstate Commission on Higher Education (WICHE) Western Regional Graduate Program (WRGP).

The following are to have their nonresident tuition adjusted:

1. Nonresident students participating in the Western Interstate Commission on Higher Education (WICHE) Western Undergraduate Exchange (WUE) will be assessed a nonresident tuition not to exceed 150 percent of the resident tuition charge.
2. Tuition and fees for incoming and outgoing participants in the National Student Exchange Program shall be charged in accordance with the terms and conditions of the National Student Exchange. In general, the student will pay resident tuition at either the student's host or home institution depending upon the exchange plan selected.

Tuition Surcharge

University Regulation R05.10.040 B provides that the president may establish special tuition or tuition surcharges in lieu of, or in addition to, regular tuition in order to provide special for-credit courses and programs or to meet special needs. The difference between regular tuition and special tuition/tuition surcharges shall be treated as fees, for purposes including but not limited to calculation of financial aid, employee benefits, scholarship benefits, general tuition waivers, and eligible costs, as well as for other Regents' Policy, University Regulation, procedures, and publications.

UAA College of Business and Public Policy: 20% surcharge applied to the base resident tuition for upper division undergraduate and graduate courses (excluding all PADM courses)

UAA College of Engineering: 20% surcharge applied to the base resident tuition for all undergraduate and graduate engineering and computer science courses

UAA College of Health: 50% surcharge applied to the base resident tuition for all 600-level graduate health sciences (HS) courses

UAA Community and Technical College: 25% surcharge applied to the base resident tuition for all Aviation courses (AMT, ATA, ATC, and ATP).

Western Undergraduate Exchange (WUE) and Western Region Graduate Programs

UAA participates in the Western Undergraduate Exchange (WUE) program of the Western Interstate Commission for Higher Education (WICHE). Through WUE, certain students who are not Alaska residents may enroll in designated UAA programs. Undergraduate students who qualify for the WUE program pay 150% of the in-state tuition rate (as well as other fees that are paid by all students) rather than the full non-resident tuition rate. Graduate students who qualify for the Western Region Graduate Program (WRGP) pay the in-state tuition rate on all graduate degree programs, both master's and doctoral. Certificate programs are not eligible.

Because UAA participates in WUE, residents of Alaska may enroll under the same terms in designated institutions and programs in other states.

Information about WUE programs at UAA may be obtained from Enrollment Services (https://www.uaa.alaska.edu/admissions/apply/western-exchange.cshtml/). Alaska residents may obtain information about WUE programs in other states from either of the following addresses:

Certifying Officer for Alaska Commission on Postsecondary Education
3030 Vintage Blvd.
Juneau, AK 99801
1-800-441-2962

WICHE Student Exchange Program *(*http://wiche.edu/wue/*)*
3035 Center Green Drive, Suite 200
Boulder, CO 80301-2204
(303) 497-0200

Senior Citizen Tuition Waiver

UAA welcomes senior citizens to its classrooms and waives regular tuition for those eligible under Board of Regents Policy R05.10.080.B. Regular tuition shall be waived for Alaska residents age 65 or older who register on a space available basis. "Space available basis" means when courses can accommodate such students in addition to other enrolled students.

Senior Citizen Tuition Waiver (SCTW) General Rules:

- Alaska Residents age 65 or older by the first day of instruction are eligible for the Senior Citizen Tuition Waiver.
- Students utilizing the Senior Citizen Tuition Waiver must register for classes on a space available basis, either on or after the first day of instruction.
- Senior Citizen Tuition Waivers waive regular tuition only. Students are responsible to pay all student fees, course fees, and surcharges associated with registration.
- Senior Citizen Tuition Waivers must be submitted before or with fee payment. No reimbursements will be made.
- Waivers and fee payment must be submitted by campus payment deadlines to avoid late fees. Waivers are not accepted after the last day of the semester.
- For more information, including eligibility and restrictions, see Regents Policy 05.10.080.B (https://www.alaska.edu/bor/policy/05.10-Tuition%20and%20Student%20Fees.pdf).

Follow three easy steps to complete registration and submit the Senior Citizen Tuition Waiver Form:

1. To be eligible to access registration, students must be admitted to UAA as either degree-seeking or non-degree seeking by submitting an application (https://www.uaa.alaska.edu/admissions/apply/index.cshtml/). Complete the Before Registration (https://www.uaa.alaska.edu/students/registration/before.cshtml/) eligibility requirements.
2. View the Class Schedule (https://www.uaa.alaska.edu/students/registration/before.cshtml/) to determine the courses you want to take. Do not register before the first day of instruction of the semester.
3. Submit the online Senior Citizen Tuition Waiver Form (https://nextgensso.com/sp/startSSO.ping?PartnerIdpId=urn:mace:incommon:alaska.edu&TargetResource=https%3a%2f%2fdynamicforms.ngwebsolutions.com%2fSubmit%2fStart%2f70b5aa60-dc85-47d3-a46d-3a4ce11481a0). Forms are accepted electronically with digital signature only when submitted using the secure, Single Sign On (SSO) form (https://nextgensso.com/sp/startSSO.ping?PartnerIdpId=urn:mace:incommon:alaska.edu&TargetResource=https%3a%2f%2fdynamicforms.ngwebsolutions.com%2fSubmit%2fStart%2f70b5aa60-dc85-47d3-a46d-3a4ce11481a0), which is accessed with your UA username and password. Paper forms (https://alaska.edu/hr/benefits/education/tuition-waiver.php) may be submitted directly to the Office of the Bursar (https://www.uaa.alaska.edu/about/administrative-services/departments/financial-services/bursar/).

Fees

In addition to tuition, some courses may require fees for materials, supplies, or services. The university also charges non-course fees to support student-centered services and programs that support students' academic and social integration into the UAA community, engage students in active learning, and foster the growth and development of each student. Fees may also be charged for administrative and/or instructional services. Resident and non-resident tuition rates and student activity fees are approved by the Board of Regents of the University of Alaska. The university reserves the right to change tuition rates or fees at any time. Fees will vary at community campuses.

Administrative Fee

An administrative fee is a fee charged instead of tuition. Other fees may be assessed for the course such as lab or material fees in addition to the administrative fee.

Continuing Education Unit (CEU) Fee

This fee varies. It is charged per continuing education unit instead of tuition.

Continuous Registration Fee

Continuous registration is expected of graduate students. (See Graduate Programs (p. 357) for more information.)

Course Fees

Course fees are specific to particular courses and meet expenses beyond those normally covered by tuition. UAOnline (http://uaonline.alaska.edu) identifies courses for which fees are charged and their purpose. Fee amounts vary.

Nontraditional Credit Fee

UAA awards academic credit for a range of prior learning. Examples include credit for prerequisite not taken, certified experience credit, local credit by examination or portfolio, or credit for articulated high school Career and Technical Education courses. Non-traditional credits are charged a $25 per credit administrative fee, with each instance capped at $150.00, regardless of the number of credits awarded. Some forms of nontraditional credit, such as for national examinations like AP or IB, typically do not have a fee.

Consolidated Student Fee

The Consolidated Student Fee is $42.75 per credit for the 2025-2026 academic year and is a mandatory student fee. Mandatory student fees contribute to a well-rounded student education and every student is unique in their interests and needs while attending college. The philosophy behind mandatory student fees is that they support valuable functions of the University to promote the common good of the campus

community, improve the quality of campus life, and enhance the University's educational mission outside the classroom. Students are encouraged to take advantage of the services being provided by the Consolidated Student Fee, which include: recreational use of the fitness facilities in the Avis Alaska Sports Complex, reduced ticket prices to musicians and comedians, free office visits at the Student Health and Counseling Center, opportunities to participate in and be represented by student government, free or reduced admission to athletic events, use of ePortfolio software, sustainability initiatives, student radio station KRUA 88.1 FM, The Northern Light student newspaper, Call Team safety escorts, Seawolf shuttle service, and U-Pass municipal bus programs. The University of Alaska Board of Regents establishes that the payment of these fees is mandatory. Professional development courses (500-level) and courses with administrative fees in lieu of tuition are exempt from this fee.

UA Infrastructure Fee

The UA Infrastructure Fee is $19 per credit for the 2025-2026 academic year and is a mandatory fee. The UA Infrastructure Fee is assessed to all students at all University of Alaska campuses on a per credit basis to address capital investment for university facilities and infrastructure. This includes, but is not limited to, academic equipment, capital refresh, and support. This fee also covers rapidly rising costs in the maintenance and enhancement of university-wide technology infrastructure. Infrastructure supports physical and virtual operations, maintenance, and construction that modernize university facilities, student living and learning spaces, and technology systems that enhance the university-wide academic experience. A portion of the revenue remains at the university at which the fee is collected, and a portion of the revenue goes to the UA system for the operation of common networks. For courses offered though UAA’s Anchorage campus, this fee will appear as “UAA Infrastructure Fee” on the student bill. Professional development courses (500-level) and courses with administrative fees in lieu of tuition are exempt from this fee.

Late Payment Fees

A $125 fee will be assessed on all accounts that are not paid by the payment deadline. An additional $175 fee will be assessed on all accounts that are not paid prior to the published second late fee assessment date. Students who pay for or drop their courses prior to the published deadline will not be required to pay these fees.

Noncredit Course Fee

Noncredit courses are numbered A001–A049. These courses do not meet degree requirements and may have fees other than regular tuition.

Parking Permits

All areas on campus except those designated as visitor parking require an appropriately displayed parking permit. Permits may be purchased online on the permit store's website (http://www.thepermitstore.com/) or from the UAA Parking Office at any time throughout the semester. The UAA Parking Office is located in the Eugene Short Hall. Permit fees are nonrefundable. For further details, call the Parking Office at (907) 786-1119 or visit the UAA Parking Office website (https://www.uaa.alaska.edu/parking/).

Placement Test Fee

This fee is for testing for course placement.

Self-Support Fee

Fee for a course that is funded entirely through the revenues collected when students register for that specific course. Costs vary by course and may include salaries, supplies, advertising, facilities and travel. Separate refund policies apply.

Transcript Fee

A per-copy fee is charged for routine or rush processing of official transcript requests and must be paid in advance.

Financial Obligations and Payment

Students at the University of Alaska Anchorage (UAA) are expected to be both academically and financially responsible for their registration and all other charges deferred to the student account. Students who change their plans or become unable to attend must officially drop or withdraw from their courses as soon as possible within published deadlines. Students who drop courses within the 100 percent refund period will receive a full reversal of tuition and fee charges. Refer to the Academic Calendar (https://www.uaa.alaska.edu/students/registration/) for specific deadlines.

We encourage students experiencing unplanned financial hardship to work with the Office of the Bursar whenever they owe a balance, however, the University does reserve the right to deny permission to register and to withhold diplomas from students who have a balance due to the institution. Late fees may be added to a student’s account for balances not paid by the published payment deadline. Accounts in default at 180 days or more past due may be sent to a collection agency and reported to the credit bureau; collection costs & fees will be added to the principal balance. The university is authorized to garnish Alaska Permanent Fund dividends for payment of defaulted accounts under Alaska Statutes 14.40.251 (http://www.akleg.gov/basis/statutes.asp#1440251) and 43.23.190 (http://www.akleg.gov/basis/statutes.asp#4323190).

UAA uses email as the official method of communication with students. Students are responsible for designating a preferred email address in UAOnline (https://alaska.edu/uaonline/). Unless a preferred email is designated, UAA will use the university-issued email address to communicate with students, including communications on financial matters. Students are responsible to read university communications on a timely basis. Failure to review communications from the university does not release a student's financial obligations. Students are responsible to keep their contact information, including phone, preferred email, and mailing address, current in UAOnline (http://uaonline.alaska.edu) at all times. Refer to Academic Policies & Processes (https://catalog.uaa.alaska.edu/academicpoliciesprocesses/academicstandardsregulations/emailcommunication/) for details.

Payment Procedure

All tuition, fees, and other charges for the semester must be paid at the time of registration or by the published payment deadline; refer to the Academic Calendar (https://www.uaa.alaska.edu/students/registration/) for more details. Late-starting classes and miscellaneous charges after the payment deadline should be paid when the charge is incurred and are subject to any subsequent late fee assessments during the term. For questions about Student Accounts, please contact the Office of the Bursar (https://www.uaa.alaska.edu/about/administrative-services/departments/financial-services/bursar/) at uaa_bursar@alaska.edu or 907-786-1440.

Important facts about your student account and billing procedures:

- The student bill is available via UAOnline (http://uaonline.alaska.edu) immediately upon registration. Additionally, an electronic bill will be generated on or about the 15th of each month and an email reminder will be sent to the preferred or UAA-assigned e-mail address. A paper bill will not be mailed.
- UAA does not initiate drop for non-payment, non-attendance, or non-participation. Students are held academically and financially responsible for all courses for which they register.
- Tuition and fee charges may be audited, corrected, and adjusted at any time. Students are notified of adjustments by e-mail. The university reserves the right to change its tuition or fees at any time.

Options for bill payment:

- Online through UAOnline (https://www.alaska.edu/uaonline/) by credit/debit card or web check (ACH transfer). Card payments incur a non-refundable service fee; contact the Office of the Bursar (https://www.uaa.alaska.edu/about/administrative-services/departments/financial-services/bursar/payyourbill.cshtml/) for current service fee rates. Web check payments do not incur a service fee.
- Pay in person with check, money order, or cash at UAA Cashiering (https://www.uaa.alaska.edu/about/administrative-services/departments/financial-services/bursar/index.cshtml/).
- Mail a check or money order to UAA Cashiering, PO Box 141609, Anchorage, AK 99514-1609. Include the UAID number of the account to be paid.
- International payments may be made using Flywire (https://www.flywire.com/).

To avoid late fees, all payments must be received by the published payment deadline.

Payment Plans:

See payment plan information on the Office of the Bursar (https://www.uaa.alaska.edu/about/administrative-services/departments/financial-services/bursar/) website for the available payment plan options.

Refund Policy

Refund processing is automatic for students who officially drop courses within the 100 percent refund period. Students are responsible for thoroughly reading the class listing and being aware of the published refund deadlines for their particular classes. The date of official drop or withdrawal activity determines eligibility for a refund.

Students who drop or withdraw, or who are administratively dropped or withdrawn from courses as a result of university disciplinary action, forfeit all rights to any refund.

Tuition and fee charges may be audited, corrected and adjusted before the end of the current semester. Students are notified of adjustments by mail. The university reserves the right to change its tuition or fees at any time.

If tuition and fees are paid at any time in a semester by credit card, the credit card will be refunded (up to the amount paid) if a credit is later created on the account. This includes, but is not limited to, credits created by scholarships, federal aid, personal checks, and tuition waivers. All other refunds will be processed as a check or direct deposit. Refund checks are mailed to the student's current mailing address on record. Students are responsible to keep their contact information current in UAOnline (http://uaonline.alaska.edu). A charge of $18.50 is assessed for all checks reissued due to a stop-payment request by the student. Students are encouraged to enroll in Direct Deposit via UAOnline (http://uaonline.alaska.edu) to receive any applicable refunds as quickly as possible.

Regular Tuition, Credit Courses (full semester)

- One hundred percent of the course(s) tuition, course fees, and student fees are automatically refunded when official drop activity is completed by the second Friday of the semester.
- No refund is issued for a withdrawal after the second Friday of the semester.
- For classes with irregular start or end dates, the 100 percent refund period ends five business days after the start of the class.
- Refer to the Academic Calendar (https://www.uaa.alaska.edu/students/registration/) for specific deadlines.

Canceled Classes

If UAA cancels a class, a 100 percent refund of tuition and course fees is automatically processed. Refund processing dates are listed in the class listing.

Withdrawal from Classes

No tuition or fee refund or exchange will be allowed for withdrawal after the drop deadline.

Noncredit, CEU and Self-Support Classes

One hundred percent of all tuition charged is refunded if the student officially drops at least two business days before the first class begins. There is no refund after this time.

Petition for Refund

In the event of extenuating circumstances, a student or person with legal authority to act on behalf of a student may petition for an exception to university policy on refunds of tuition and fees. Petitions are not automatically granted but will be considered in light of the criteria set forth below and the individual circumstances of the request. Being unaware of university procedures or deadlines does not constitute justification for a refund. Refunds are granted only when extenuating circumstances are documented.

1. Only requests submitted by the student or by a person with legal authority to act on behalf of the student will be considered.
2. The deadline to submit a Petition for Refund is no later than one academic year following the semester in which the course was offered. Requests that are not received within this time frame will not be considered.
3. At the time a Petition for Refund is filed, the student must have already withdrawn or received a Failing or No Basis grade. Refunds will not be considered for courses in which a student is still registered or for which a passing grade, Incomplete, Deferred or Audit grade exists.
4. Decisions will be made solely on the supporting documentation provided. In all cases, a personal statement from the student is required summarizing the situation and explaining the need for an exception to the refund deadline.
5. A request will only be approved if the petitioner can demonstrate unanticipated and unavoidable circumstances beyond the student's control that arose or came to light after published deadlines. Work-related issues, financial hardship, and failure to read UAA's documents generally do not present justifiable reasons to support a refund request.
6. Petitions for refund for self-support courses are generally not allowed and must have the approval of the academic unit/department chair or director.
7. Mandatory Student Fees are not refundable unless a student drops all courses during the 100% refund period.
8. If the petition for refund is approved, refunds will be issued to the original funding source, e.g., credit card, financial aid, granting agency, lending agency, etc.
9. Petitions will be reviewed periodically and the number of petitions being reviewed will determine the time for response. All charges and late fees are considered true and correct and are therefore not suspended during the review process. The university reserves the right to move forward on all collection efforts during the review process.
10. Requests for reconsideration of an adverse decision must be in writing, provide additional documentation not presented in the original request, and be received within 10 working days of the day the decision is emailed or otherwise distributed to the student.
11. Requests for adding courses after the add/drop deadline or requests to retroactively withdraw from courses must be applied for separately through the Request for Late Add or Retroactive Withdrawal (https://www.uaa.alaska.edu/students/registrar/registrarforms.cshtml/) process with the Office of the Registrar.
12. Complaints about dissatisfaction with academic courses, methods of course delivery, or instructor performance are not considered under this process. Students have recourse to a range of dispute resolution processes, depending of the type of concern. Academic Dispute Resolution Procedures can be found under Academic Rights of Students (p. 16). Non-academic procedures can be found in the UAA Student Handbook (https://catalog.uaa.alaska.edu/handbook/).

Military Students Called to Active Duty or Deployment

Students called to active duty or involuntarily activated, deployed or relocated during an academic term are eligible for 100 percent refund of tuition and fees, and a prorated adjustment on housing and meal plans. See Course Performance (p. 26) for more information.

Title 38 United States Code Section 3679(e) School Compliance Policy

As part of the Veterans Benefits and Transition Act of 2018, section 3679 of title 38, UAA complies with the requirements as outlined below:

Note: A Covered Individual is any individual who is entitled to educational assistance under chapter 31, Vocational Rehabilitation and Employment, or chapter 33, Post-9/11 GI Bill®[1] benefits.

- UAA permits any covered individual to attend or participate in the course of education during the period beginning on the date on which the individual provides to UAA Military & Veteran Student Services a certificate of eligibility for entitlement to educational assistance under chapter 31 or 33, or a Statement of Benefits from the VA website e-benefits, or a VAF 28-1905 form for chapter 31 and ending on the earlier of the following dates:
  - The date on which payment from VA is made to UAA.
  - 90 days after the date UAA certified tuition and fees following receipt of the certificate of eligibility.
- UAA will not impose any penalty, including the assessment of late fees, the denial of access to classes, libraries, or other institutional facilities, or the requirement that a covered individual borrow additional funds, on any covered individual because of the individual's inability to meet his or her financial obligations to UAA due to the delayed disbursement funding from VA under chapter 31 or 33.

In addition, the statute allows UAA to require chapter 31 and chapter 33 students to take the following additional actions:

- Submit a certificate of eligibility for entitlement to educational assistance no later than the first day of a course of education.
- Submit a written request (Certification Request Form (https://www.uaa.alaska.edu/students/veterans/va-forms.cshtml/)) to use entitlement.
- Provide additional information necessary to UAA for the proper certification of enrollment.
- Make payment for a difference between the amount of the student's financial obligation and the amount of the VA education benefits disbursement.

If students do not turn in a COE, or Statement of Benefits, and/or CRF by the first day of class, a late fee may be assessed after the published payment deadline for the term and a hold restricting future registration may be placed on the account. UAA will hold students financially responsible for any portion of tuition, fees, parking, room & board, and other charges not covered by the VA. Balances remaining on the student account at the end of the term – and after VA benefits are disbursed – may be subjected to a late fee assessment and a hold may be placed on the account restricting future registration. Students may contact UAA Office of the Bursar (https://www.uaa.alaska.edu/about/administrative-services/departments/financial-services/bursar/) to discuss available payment plan options, if needed.

[1] *GI Bill® is a registered trademark of the U.S. Department of Veterans Affairs (VA). More information about education benefits offered by VA is available at the official* U.S. government Web site *(*https://www.benefits.va.gov/gibill/*).*

Annual Notifications and Disclosures

Notice of Nondiscrimination (BOR Policy & Regulation 01.02.020 (http://alaska.edu/bor/policy-regulations/))

The University of Alaska does not discriminate on the basis of race, religion, color, national origin, citizenship, age, sex, physical or mental disability, status as a protected veteran, marital status, changes in marital status, pregnancy, childbirth or related medical conditions, parenthood, sexual orientation, gender identity, political affiliation or belief, genetic information, or other legally protected status.

The University's commitment to nondiscrimination applies to all applicants, faculty, staff, students, student-employees, volunteers, affiliates and contractors in a manner consistent with all applicable laws, regulations, ordinances, orders, and Board of Regents' Policies, University Regulations, and related internal processes and procedures.

This policy therefore affects employment policies and actions, as well as the delivery of educational services at all levels and facilities of the University. Further, the University's objective goals of ensuring equal opportunity and equal access will include providing reasonable accommodations to individuals with disabilities and ensuring that employment and educational opportunities are widely disseminated to agencies and organizations that reach all potential participants or applicants, including specifically protected veterans and individuals with disabilities. The University is committed to making decisions affecting individuals based on the individual's qualifications, abilities and performance, as appropriate.

The following person has been designated to handle inquiries regarding the nondiscrimination policies:

University of Alaska Anchorage
Director, Office of Compliance and Rights
3190 Alumni Drive, Suite 352
Anchorage, AK 99508
Phone: 907-786-0818
E-mail: uaa_titleix@alaska.edu
Website: https://www.uaa.alaska.edu/about/compliance-and-rights/ (https://www.uaa.alaska.edu/about/equity-and-compliance/)

University of Alaska Fairbanks
Executive Director, Title IX and ADA/504 Coordinator
Office of Rights, Compliance and Accountability
1692 Tok Lane, 3rd Floor Constitution Hall
PO Box 756910
Fairbanks, AK 99775-6910
Phone: 907-474-7300
E-mail: uaf-orca@alaska.edu
Website: http://uaf.edu/orca (http://uaf.edu/orca/)

University of Alaska Southeast
UAS Title IX Coordinator
11066 Auke Lake Way,
Juneau, AK 99801
Phone: 907-796-6371
E-mail: uas.titleix@alaska.edu
http://www.uas.alaska.edu/titleix (http://www.uas.alaska.edu/titleix/)

For sex discrimination claims or other inquiries concerning the application of Title IX of the Education Amendments of 1972 and its implementing regulations, individuals may contact the University's Title IX Coordinator, or the Assistant Secretary in the U.S. Department of Education Office of Civil Rights, or both:

UAA Title IX Coordinator
3190 Alumni Drive, Suite 352
Anchorage, AK 99508
Phone: 907-786-0818
E-mail: uaa_titleix@alaska.edu
Website: http://www.uaa.alaska.edu/about/compliance-and (http://www.uaa.alaska.edu/about/equity-and-compliance/)-rights (http://www.uaa.alaska.edu/about/compliance-and-rights/)

UAF Title IX Coordinator
1692 Tok Lane, 3rd Floor Constitution Hall
Fairbanks, AK 99775-6910
Phone: 907-474-7300
E-mail: uaf-tix@alaska.edu
http://uaf.edu/orca (http://www.uaf.edu/equity/)

UAS Title IX Coordinator
11066 Auke Lake Way
Juneau, AK 99801
Phone: 907-796-6371
E-mail: uas.titleix@alaska.edu
http://www.uas.alaska.edu/titleix (http://www.uas.alaska.edu/titleix/)

Office for Civil Rights, Seattle Office
U.S. Department of Education
915 Second Ave., Room 3310
Seattle, WA 98174-1099
Phone: 206-607-1600
TDD: 800-877-8339
E-mail: OCR.Seattle@ed.gov
Website: http://www2.ed.gov/about/offices/list/ocr/docs/howto.html (http://www2.ed.gov/about/offices/list/ocr/docs/howto.html)

For employment or educational discrimination, students, parents, employees and applicants for employment may file a complaint with the U.S. Department of Education within 180 calendar days of the alleged discriminatory act.

Office for Civil Rights, Seattle Office
U.S. Department of Education
915 Second Ave., Room 3310
Seattle, WA 98174-1099
Phone: 206-607-1600
TDD: 800-877-8339
E-mail: OCR.Seattle@ed.gov
Website: http://www2.ed.gov/about/offices/list/ocr/docs/howto.html

For employment discrimination, employees and applicants for employment may file a complaint with the Equal Employment Opportunity Commission at the below addresses within 180 calendar days of the alleged discriminatory act.

Equal Employment Opportunity Commission
Federal Office Building
909 First Avenue
Suite 400
Seattle, WA 98104-1061
Phone: 800-669-4000
Fax: 206-220-6911
TTY: 800-669-6820
Website: http://www.eeoc.gov/employees/charge.cfm

For educational discrimination, individuals may file a complaint with the U. S. Department of Justice

U.S. Department of Justice Civil Rights Division
950 Pennsylvania Avenue, N.W.
Educational Opportunities Section, PHB
Washington, D.C. 20530
Phone: 202-514-4092 or 1-877-292-3804 (toll-free)
Fax: 202-514-8337
E-mail: education@usdoj.gov
Website: http://www.justice.gov/crt/how-file-complaint#three (http://www.justice.gov/crt/how-file-complaint/#three)

For employment or educational discrimination, individuals may file a complaint with the State of Alaska:

Alaska State Human Rights Commission
800 A Street, Suite 204
Anchorage, AK 99501-3669
Anchorage Area: 907-274-4692
Anchorage Area TTY/TDD: 907-276-3177
Toll-Free Complaint Hot Line (in-state only): 800-478-4692
TTY/TDD Toll-Free Complaint Hot Line (in-state only): 800-478-3177

Website: https://humanrights.alaska.gov/

For discrimination related to a Department of Labor funded grant, individuals may file a complaint with the U. S. Department of Labor within 180 calendar days of the alleged discriminatory act.

U.S. Department of Labor
ATTENTION: Office of External Enforcement
Director, Civil Rights Center
200 Constitution Avenue, NW
Room N-4123
Washington, DC 20210
Fax: 202-693-6505, ATTENTION: Office of External Enforcement (limit of 15 pages)
E-mail: CRCExternalComplaints@dol.gov
Website: https://www.dol.gov/agencies/oasam/centers-offices/civil-rights-center (https://www.dol.gov/agencies/oasam/centers-offices/civil-rights-center/)

For discrimination related to a National Science Foundation funded grant, individuals may file a complaint with the National Science Foundation within 90 calendar days of the alleged discriminatory act on the basis of race, sex (including sexual harassment), color, national origin and disability. Age discrimination complaints may be filed within 180 calendar days of the alleged discriminatory act.

National Science Foundation
NSF Awardee Compliance Manager
Office of Diversity & Inclusion (ODI)
2415 Eisenhower Avenue
Alexandria, VA 22314
Phone: 703-292-8020
E-mail: ProgramComplaints@nsf.gov
Website: https://www.nsf.gov/od/odi/

UA's grievance procedures and grievance process under Title IX, including how to report or file a formal complaint of sex discrimination, how to report or file a formal complaint of sexual harassment, and how UA will respond are located in UA Board of Regents' Policy and Regulation Chapter 01.04. (https://alaska.edu/bor/policy/01.04-Sex%20and%20Gender-Based%20Discrimination%20Under%20Title%20IX.pdf) This chapter defines prohibited behavior and details the administrative grievance procedures and grievance process for inquiries, investigations, hearings, and appeals which apply when prohibited behavior is alleged to have occurred.

For discrimination related to a United States Department of Agriculture (USDA) funded grant, individuals may file a complaint with the USDA within 180 calendar days of the alleged discriminatory act. In programs that receive Federal financial assistance from USDA, discrimination is prohibited on the bases of race, color, religious creed, sex, political beliefs, age, disability, national origin, or limited English proficiency. (Not all bases apply to all programs.) Reprisal is prohibited based on prior civil rights activity.

U.S. Department of Agriculture
Director, Center for Civil Rights Enforcement 1400 Independence Avenue, SW Washington, DC 20250-9410
Phone: (866) 632-9992
E-mail: CR-INFO@usda.gov
Website: https://www.usda.gov/oascr/filing-program-discrimination-complaint-usda-customer (https://www.usda.gov/oascr/filing-program-discrimination-complaint-usda-customer/)

Biographic/Demographic Information

UAA must comply with state and federal reporting requirements and therefore requires that students provide specific biographic or demographic information on registration or admission forms. The University uses the information for statistical purposes and as an identifier for University records. This information is relevant to the University's admission and enrollment policies. The University is careful to guard private information and does not discriminate on the basis of this information.

Social Security Number

The University of Alaska has established student identification numbers and does not use Social Security numbers for student identification.

The University is still required to collect a valid Social Security number from each student for IRS, employment and federal financial aid purposes. The last four digits of the Social Security number are included on official transcripts for identification matching purposes.

Annual Security and Fire Safety Report

The Annual Security and Fire Safety Report (https://www.uaa.alaska.edu/safety/) contains information regarding campus safety and security including topics such as: campus law enforcement authority; crime reporting policies; campus alerts (Timely Warning and Emergency Notifications); fire safety policies and procedures; programs to prevent dating violence, domestic violence, sexual assault and stalking; the procedures the University will follow when one of these crimes is reported; and other matters of importance related to security on campus. The report also contains information about crime statistics for the three most recent calendar years concerning reported crimes that occurred on campus; in On-Campus Student Housing Facilities; in Noncampus buildings or property owned or controlled by the University or a recognized student organization; and on public property within, or immediately adjacent to and accessible from, the campus. The report also contains fire statistics for any fires occurring in an On-Campus Student Housing Facility during the three most recent calendar years. If you would like to receive a paper copy of the Annual Security and Fire Safety Report, you can stop by the UAA Police Department Office at Room 114 of Eugene Short Hall on the Anchorage campus or request a copy be mailed to you by calling 907-786-1120 or emailing police@uaa.alaska.edu. You may also stop by the UAA Dean of Students Office in Room 122 of Rasmuson Hall on the Anchorage campus or request a copy be mailed to you by calling 907-786-1214 or emailing uaa_deanofstudents@alaska.edu.

Computer Use and Software Copyright Policy

All faculty, staff, and students who use any computer at the University are responsible for using computer resources in an ethical and legal manner. For detailed information see the Acceptable Use Policy (https://www.uaa.alaska.edu/about/administrative-services/policies/information-technology/acceptable-use.cshtml/) and Blackboard Use Policy (https://www.uaa.alaska.edu/about/administrative-services/policies/information-technology/blackboard-use.cshtml/).

Copyright and Intellectual Property

Summary of Civil and Criminal Penalties for Violation of Federal Copyright Laws

In accordance with the Higher Education Opportunity Act, UAA annually provides the following information pertaining to copyright infringement as a way to educate UAA community members about the potential impacts from the unauthorized distribution of copyrighted material.

Copyright infringement is the act of exercising, without permission or legal authority, one or more of the exclusive rights granted to the copyright owner under section 106 of the Copyright Act (Title 17 of the United States Code). These rights include the right to reproduce or distribute a copyrighted work. In the file-sharing context, including peer-to-peer file sharing, downloading or uploading substantial parts of a copyrighted work without authority constitutes an infringement.

It is a violation of UA Board of Regent Policy and University Regulation for UA community members to commit copyright infringement using university resources, including any campus or residence hall networks or internet services. Violations may result in disciplinary sanctions as well as the potential suspension or revocation of the user's access to university resources or networks.

Penalties for copyright infringement include civil and criminal penalties. In general, anyone found liable for civil copyright infringement may be ordered to pay either actual damages or "statutory" damages affixed at not less than $750 and not more than $30,000 per work infringed. For "willful" infringement, a court may award up to $150,000 per work infringed. A court can, in its discretion, also assess costs and attorneys' fees. Finally, penalties are assessed for each act of infringement. Each time a copyrighted work is shared, downloaded, or used without permission constitutes a separate act of infringement. For details, see Title 17, United States Code, Sections 504, 505.

Willful copyright infringement can also result in criminal penalties, including imprisonment of up to five years and fines of up to $250,000 per offense. For details, see Title 17, United States Code, Section 506.

For more information about copyrights in general, please see the website of the U.S. Copyright Office (http://www.copyright.gov/).

Drug-Free Schools Notification

The Drug-Free Schools Notification (https://www.uaa.alaska.edu/students/drug-free-schools-notification.cshtml/) contains UAA's alcohol and other drug policies and behavioral expectations for students and employees, disciplinary actions for violations of these policies, and resources available for assistance with alcohol and other drug issues. This notification contains physiological effects, risks and criminal penalties associated with alcohol and other drug use. Request a paper copy from the UAA Dean of Students Office in Room 122 of Rasmuson Hall on the Anchorage campus.

Family Educational Rights and Privacy Act (FERPA)

The Family Educational Rights and Privacy Act (https://studentprivacy.ed.gov/node/548/) (FERPA) affords eligible students certain rights with respect to their education records. An "eligible student" under FERPA is a student who is 18 years of age or older or who attends a postsecondary institution, regardless of age. These rights include:

1. The right to inspect and review the student's education records within 45 days of the day the University receives a request for access. A student should submit to the Office of the Registrar a written request (email or letter) that identifies the record(s) the student wishes to inspect. The registrar will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the registrar, registrar-designated staff shall advise the student of the correct official to whom the request should be addressed.

2. The right to request the amendment of the student's education records that the student believes is inaccurate, misleading or otherwise in violation of the student's privacy rights under FERPA.

   A student who wishes to ask the University to amend a record should write the University official responsible for the record, clearly identify the part of the record the student wants changed, and specify why it should be changed.

   If the University decides not to amend the record as requested, the University will notify the student in writing of the decision and the student's right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.
3. The right to provide written consent before the University discloses personally identifiable information from the student's education records, except to the extent that FERPA authorizes disclosure without consent.

   The University discloses education records without a student's prior written consent under the FERPA exception for disclosure to school officials with legitimate educational interests. A school official is a person employed by the University in an administrative, supervisory, academic, research or support staff position (including law enforcement unit personnel and health staff); a person serving on the Board of Regents; or a student serving on an official committee, such as a disciplinary or grievance committee. A school official also may include a volunteer or contractor outside of the University who performs an institutional service or function for which the University would otherwise use its own employees and who is under the direct control of the University with respect to the use and maintenance of personally identifiable information from education records, such as an attorney, auditor, or collection agent or a student volunteering to assist another school official in performing their tasks. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill their professional responsibilities for the University.

   Upon request, the University also discloses education records without consent to officials of another school in which a student seeks or intends to enroll.

   The University also discloses information without a student's prior written consent under the FERPA exception for disclosure of information that it has designated as "directory information."

   See the list below of the other disclosures that the University may make without consent.
4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by the University to comply with the requirements of FERPA. The name and address of the office that administers FERPA is:

   Student Privacy Policy Office
   U.S. Department of Education
   400 Maryland Avenue, SW
   Washington, DC 20202-8520

The following information is designated as directory information by the university:

- Names of students
- Dates of attendance at the University
- Program/major field(s) of study
- Degrees and certificates received, including dates
- Participation in officially recognized University activities
- Academic and co-curricular awards, honors and scholarships received and dates received
- Weight and height of students on athletic teams
- Individual student's electronic mail address*
- Hometown city, state/province and country
- Enrollment status (e.g. full time, part time)

The following information is designated as limited directory information by the university and will only be used by university officials for verification purposes and only in conjunction with a legitimate educational interest:

- Student ID (UA ID)
- Date of birth
- *UAA does not supply lists of students' email addresses to any third party outside of the university

A student may inform the Office of the Registrar in writing that they do not give permission for the University to release their directory information or may submit the request (https://www.alaska.edu/uaonline/) through UAOnline. The request is valid until a subsequent request to release directory information is received in writing or through UAOnline.

FERPA permits the disclosure of personally identifiable information from students' education records, without consent of the student, if the disclosure meets certain conditions found in §99.31 of the FERPA regulations. Except for disclosures to school officials, disclosures related to some judicial orders or lawfully issued subpoenas, disclosures of directory information, and disclosures to the student, §99.32 of FERPA regulations requires the institution to record the disclosure. Eligible students have a right to inspect and review the record of disclosures.

A postsecondary institution may disclose personally identifiable information from the education records without obtaining prior written consent of the student:

- To other school officials, including teachers, within the University whom the University has determined to have legitimate educational interests. This includes contractors, consultants, volunteers or other parties to whom the University has outsourced institutional services or functions, provided that the conditions listed in §99.31(a)(1)(i)(B)(1) - (a)(1)(i)(B)(2) are met. (§99.31(a)(1))

- To officials of another school where the student seeks or intends to enroll, or where the student is already enrolled if the disclosure is for purposes related to the student's enrollment or transfer, subject to the requirements of §99.34. (§99.31(a)(2))
- To authorized representatives of the U.S. comptroller general, the U.S. attorney general, the U.S. secretary of education, or state and local educational authorities, such as a state postsecondary authority that is responsible for supervising the University's state-supported education programs. Disclosures under this provision may be made, subject to the requirements of §99.35, in connection with an audit or evaluation of federal- or state-supported education programs, or for the enforcement of or compliance with federal legal requirements that relate to those programs. These entities may make further disclosures of personally identifiable information to outside entities that are designated by them as their authorized representatives to conduct any audit, evaluation, or enforcement or compliance activity on their behalf. (§§99.31(a)(3) and 99.35)
- In connection with financial aid for which the student has applied or which the student has received, if the information is necessary to determine eligibility for the aid, determine the amount of the aid, determine the conditions of the aid, or enforce the terms and conditions of the aid. (§99.31(a)(4))
- To organizations conducting studies for, or on behalf of, the University, in order to: (a) develop, validate, or administer predictive tests; (b) administer student aid programs; or (c) improve instruction. (§99.31(a)(6))
- To accrediting organizations to carry out their accrediting functions. ((§99.31(a)(7))
- To parents of an eligible student if the student is a dependent for IRS tax purposes. (§99.31(a)(8))
- To comply with a judicial order or lawfully issued subpoena. (§99.31(a)(9))
- To appropriate officials in connection with a health or safety emergency, subject to §99.36. (§99.31(a)(10))
- To a victim of an alleged perpetrator of a crime of violence or a non-forcible sex offense, subject to the requirements of §99.39. The disclosure may only include the final results of the disciplinary proceeding with respect to that alleged crime or offense, regardless of the finding. (§99.31(a)(13))
- To the general public, the final results of a disciplinary proceeding, subject to the requirements of §99.39, if the University determines the student is an alleged perpetrator of a crime of violence or non-forcible sex offense and the student has committed a violation of the University's rules or policies with respect to the allegation made against them (§99.31(a)(14))
- To parents of a student regarding the student's violation of any federal, state, or local law, or of any rule or policy of the University, governing the use or possession of alcohol or a controlled substance if the University determines the student committed a disciplinary violation and the student is under the age of 21. (§99.31(a)(15))

The University does not provide information pertaining to student records to parents or guardians unless the student has provided written permission to do so or when there is a health or safety emergency which warrants such disclosure.

The University does not provide copies of student lists to groups or organizations outside the University except in cases outlined above.

Free Speech and Academic Inquiry

In the pursuit of knowledge, any member of the University community shall be free to investigate and question any fact, context, action, purpose or belief that is encountered in any discipline. Any member shall be free to articulate discoveries, opinions and judgments that are found or formed in the process. UAA enables and encourages this activity and creates a culture of inquiry that is open to the expression and debate of ideas, whether or not they are popular, judicious or refined.

Gender-Based and Sexual Misconduct Policy

Members of the University of Alaska Anchorage community and visitors have the right to be free from all forms of gender and sex-based discrimination, including sexual violence, sexual harassment, domestic violence, dating violence and stalking. Gender-based and sexual misconduct has a negative impact on victims and other members of our community. UAA expects all members of the community to conduct themselves in a manner that does not infringe upon the rights of others. Therefore, UAA has a zero-tolerance policy for gender-based and sexual misconduct.

UAA prohibits rape, acquaintance rape, sexual assault, sexual harassment, stalking, dating violence and domestic violence. In the event that a sexual assault, or act of stalking, dating violence, or domestic violence does occur, UAA takes the matter very seriously. UAA will take steps to stop the behavior, prevent its recurrence and provide remedies for victims. Individuals with questions about this policy may call the Office of Compliance and Rights at (907) 786-0818.

Harassment

UAA is a community that cherishes the free and open exchange of ideas in the pursuit of knowledge. Maintaining this freedom and openness requires the presence of safety and trust; it requires the absence of coercion, intimidation and exploitation. Harassment subjects its victims to pressures that destroy the conditions necessary for true learning. Faculty, supervisors and the leadership are principally responsible for creating a harassment-free community at UAA and all campus constituents are expected to help maintain a positive working and learning environment. Additionally, all members of the campus community are expected to conduct themselves in a manner that does not infringe upon the rights of others.

Anyone who believes they have been a victim of harassment should contact the following:

UAA Office of Compliance and Rights	(907) 786-0818
Office of the Dean of Students, if alleged harasser is a student	(907) 786-1214
Human Resources	(907) 450-8200

U.S. Department of Labor (Office of Federal Contract Compliance Programs, Seattle District Office)	(206) 398-8005
U.S. Department of Education, Office of Civil Rights	(206) 607-1600

UAA takes all matters of sexual harassment, sexual assault and sexual violence seriously. Title IX prohibits gender discrimination in all programs and activities. In accordance with Title IX regulations, UAA has designated the director of the Office of Compliance and Rights as the University's Title IX coordinator responsible for overseeing UAA’s Title IX compliance effort. If you have concerns or need to report an incident, please contact the Title IX Coordinator at uaa_titleix@alaska.edu or visit the Title IX website (http://www.uaa.alaska.edu/equity-and-compliance/) to file an online report.

Course Descriptions

Accounting (ACCT)

Courses

ACCT A101 Principles of Financial Accounting I **3 Credits**
Introduces a first semester of financial accounting with emphasis on procedures for recording, analyzing and summarizing accounting transactions. Includes discussion of the following asset categories: cash, accounts receivable and inventory. Taught from the perspective of the accountant or bookkeeper who is responsible for recording accounting transactions.
Special Note: ACCT A101 and ACCT A102 will satisfy requirement for ACCT A201. AAS Accounting majors must take ACCT A101 and ACCT A102.
Registration Restrictions: UAA-approved mathematics placement test scores may be used in lieu of prerequisite.
Prerequisites: MATH A055 with a minimum grade of C or MATH A060 with a minimum grade of C or MATH A105 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C.

ACCT A102 Principles of Financial Accounting II **3 Credits**
Introduces the second semester of financial accounting with an emphasis on procedures for recording, analyzing, and summarizing accounting transactions dealing with long-term assets, current and long-term liabilities, as well as stockholder and partnership equity transactions and the statement of cash flows. Explained from the perspective of the accountant/bookkeeper who is responsible for recording accounting transactions.
Special Note: ACCT A101 and ACCT A102 will satisfy requirement for ACCT A201. AAS Accounting majors must take ACCT A101 and ACCT A102.
Prerequisites: ACCT A101 with a minimum grade of C.

ACCT A120 Bookkeeping for Business I **3 Credits**
Basic concepts and procedures of practical bookkeeping. Fundamental principles and practices necessary to record and report financial data in a service and merchandising business for manual systems and computerized systems.
Special Note: May be offered as either classroom or open-entry, individualized course.

ACCT A201 Principles of Financial Accounting **3 Credits**
Introduces financial accounting concepts and principles. Emphasizes the recognition and recording of financial information, the creation and understanding of financial statements, and the role accounting information takes in business and society.
Special Note: ACCT A101 and ACCT A102 will satisfy the requirement for ACCT A201. AAS Accounting majors must take ACCT A101 and ACCT A102.
Registration Restrictions: UAA-approved mathematics placement test scores may be used in lieu of prerequisites.
Prerequisites: MATH A105 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C.

ACCT A202 Principles of Managerial Accounting **3 Credits**
Studies the generation and analysis of accounting information and its use by managers as they engage in planning, control and decision-making activities in business and non-business organizations. Includes product costing, cost-volume-profit analysis, profit planning, variance analysis, relevant costs for decision making, and capital budgeting decisions.
Prerequisites: ACCT A101 with a minimum grade of C or ACCT A201 with a minimum grade of C.

ACCT A210 Income Tax Preparation **3 Credits**
Describes the process for preparing individual income tax returns. Includes tax research and tax planning with emphasis on primary and administrative sources of income tax law. Emphasizes the sources and interpretation of the tax laws and principles as well as how they apply to individuals.
Prerequisites: ((ACCT A101 with a minimum grade of C and ACCT A102 with a minimum grade of C) or ACCT A201 with a minimum grade of C) and BADA A110 with a minimum grade of C.

ACCT A222 Introduction to Computerized Accounting **3 Credits**
Introduces the processing of accounting information using commercial accounting software. Compares manual and computerized recording and processing of accounting transactions. Includes accounting cycle overview, maintenance of chart of accounts and master files, processing sales, receivables, cash receipts, purchases, payables, and cash payments. Prepares financial statements and other reports in computerized software systems and spreadsheet applications.
Prerequisites: ((ACCT A101 with a minimum grade of C and ACCT A102 with a minimum grade of C) or ACCT A201 with a minimum grade of C) and BADA A110 with a minimum grade of C.

ACCT A225 Payroll Accounting **3 Credits**
Introduces students to federal and state laws and regulations that affect payroll and employment practices. Topics covered include calculation of wages, withholding taxes, health, retirement, and other voluntary deductions and preparation of payroll tax reports. Also includes recording and posting of payroll information to accounting records manually and using computerized software.
Prerequisites: ((ACCT A101 with a minimum grade of C and ACCT A102 with a minimum grade of C) or ACCT A201 with a minimum grade of C) and BADA A110 with a minimum grade of C.

ACCT A230 Workpaper Preparation and Presentation **3 Credits**
Emphasizes preparation and analysis of workpapers to support year-end corporate financial statements. Includes an in-depth analysis of major balance sheet accounts and a study of financial statement presentation formats and requirements.
Prerequisites: ACCT A101 with a minimum grade of C and ACCT A102 with a minimum grade of C and ACCT A222 with a minimum grade of C and BADA A110 with a minimum grade of C.

ACCT A295 Entry-Level Accounting Internship **1-3 Credits**
Provides work experience in an approved bookkeeping or clerical position with supervision and training in various phases of accounting.
Special Note: May be repeated for credit, but a maximum of 3 credits will apply to degree requirements.
Registration Restrictions: College of Business and Public Policy Student Advising Center approval; Accounting Faculty Internship Coordinator approval; cumulative GPA of 2.75 or higher
Prerequisites: ACCT A101 with a minimum grade of C and ACCT A102 with a minimum grade of C and WRTG A111 with a minimum grade of C and (COMM A111 with a minimum grade of C or COMM A235 with a minimum grade of C or COMM A237 with a minimum grade of C or COMM A241 with a minimum grade of C).

ACCT A301 Intermediate Accounting I **3 Credits**
Provides an in-depth study of the accounting sequence, principles and rules governing financial statements and balance sheet accounts including: cash, receivables, inventory, intangibles, and property, plant and equipment.
Prerequisites: ((ACCT A101 with a minimum grade of C and ACCT A102 with a minimum grade of C) or ACCT A201 with a minimum grade of C) and ACCT A202 with a minimum grade of C.

ACCT A302 Intermediate Accounting II **3 Credits**
Continues intermediate accounting series designed to give students an in-depth understanding of the theory and current practice of financial accounting. Focuses on the accounting for investments, liabilities, stockholders' equity, revenues, and cash flows.
Prerequisites: ACCT A301 with a minimum grade of C.

ACCT A316 Accounting Information Systems **3 Credits**
Introduces students to fundamental concepts of accounting information systems (AIS). Includes the study of business processes, business risks and controls, and IT infrastructure to enable processes.
Prerequisites: ((ACCT A101 with a minimum grade of C and ACCT A102 with a minimum grade of C) or ACCT A201 with a minimum grade of C) and ACCT A202 with a minimum grade of C and BADA A110 with a minimum grade of C.

ACCT A320 Fundamentals of Accounting Data Analytics **3 Credits**
Introduces foundational concepts of data analytics, focusing on applications in the accounting profession. Emphasizes the development of a critical mindset through key skills such as critical thinking, data literacy, technological agility, and effective communication. Through the lens of financial, auditing, cost and managerial accounting, taxation, and not-for-profit entities, students explore methods, theories, and processes required to prepare, analyze, and interpret data, as well as communicate insights effectively.
Prerequisites: ((ACCT A101 with a minimum grade of C and ACCT A102 with a minimum grade of C) or ACCT A201 with a minimum grade of C) and ACCT A202 with a minimum grade of C and BADA A110 with a minimum grade of C.

ACCT A342 Managerial Cost Accounting **3 Credits**
Examines the nature, objectives and procedures of cost management as applied to product and service costing, decision-making, cost planning, and control systems.
Prerequisites: ACCT A202 with a minimum grade of C.

ACCT A401 Advanced Accounting **3 Credits**
Studies accounting for expanded business entities, including corporate purchase consolidations; partnership formation and dissolution; and foreign currency transactions, translations, and hedges.
Prerequisites: ACCT A302 with a minimum grade of C.

ACCT A409 Individual Income Tax **3 Credits**
Studies federal income tax law as it applies to individuals, sole proprietors and property transactions. Emphasizes application, theory, research and tax planning.
Prerequisites: ACCT A301 with a minimum grade of C.

ACCT A410 Corporate and Partnership Income Tax **3 Credits**
Studies federal income tax law as it applies to partnerships, C-corporations and S-corporations. Emphasizes application, theory, research and tax planning.
Prerequisites: ACCT A301 with a minimum grade of C.

ACCT A420 Fraud Examination **3 Credits**
Provides an overview of the nature of fraud and its impact on individuals and businesses. Examines techniques of fraud detection, investigation and prevention. Analyzes various types of fraud: employee embezzlement, management fraud, investment scams, vendor fraud and customer fraud. Emphasizes the need for strong internal control systems, codes of ethics, and financial statement and analysis techniques.
Prerequisites: ACCT A301 with a minimum grade of C.

ACCT A422 Justice for Fraud Victims **3 Credits**
Utilizes forensic accounting techniques to investigate actual fraud cases that are brought to the class by law enforcement.
Registration Restrictions: Instructor permission.
Prerequisites: (ACCT A302 with a minimum grade of C and ACCT A316 with a minimum grade of C) or ACCT A420 with a minimum grade of C.

ACCT A430 Governmental and Not-for-Profit Accounting **3 Credits**
Covers fund accounting and financial reporting for governmental and not-for-profit entities: state and local governments, the federal government, colleges and universities, and health care organizations.
Prerequisites: ACCT A301 with a minimum grade of C.

ACCT A452 Auditing **3 Credits**
Studies professional standards applicable to independent auditor's examination of financial statements and their related expression(s) of opinion.
Registration Restrictions: Completion of all GER Tier 1 (basic college-level skills) courses.
Prerequisites: ACCT A302 with a minimum grade of C and ACCT A316 with a minimum grade of C.
Attributes: UAA Integrative Capstone GER.

ACCT A495 Advanced Accounting Internship **3 Credits**
Integrates classroom study with work experience in an approved accounting position with supervision and training in the public and/or private sectors.
Special Note: May not be used to satisfy upper-division Accounting elective requirement. May be repeated for credit but only 6 credits will apply to degree requirements.
Registration Restrictions: Must be admitted to the BBA Accounting program; permission of College of Business and Public Policy accounting faculty internship coordinator; upper division standing; cumulative GPA of 2.75 or higher; cumulative GPA 3.00 or higher in major.
Prerequisites: ACCT A301 with a minimum grade of C.

ACCT A601 Accounting Foundations for Executives **3 Credits**
A traditional survey of accounting for the core requirement in the MBA program. Covers common financial and managerial topics with brief exposures to systems, auditing, non-profit, partnerships and joint ventures.
Registration Restrictions: Graduate standing

ACCT A650 Seminar in Executive Uses of Accounting **3 Credits**
Examines the correct use and interpretation of accounting data at the executive and board of directors level. Discusses company goals, human behaviors associated with accounting choices, and the difficulties of establishing financial controls that produce fair and informative audits. Explores misconduct, financial mismanagement, shenanigans and ethical dilemmas in financial reporting. Also examines value creation, forecasting and performance evaluations.
Registration Restrictions: Admission to MBA program or permission of instructor.
Prerequisites: ACCT A601 with a minimum grade of C and BA A603 with a minimum grade of C.

Aerospace Science ROTC (AIRS)

Courses

AIRS A101 Heritage and Values of the Department of the Air Force I **1 Credit**
Introduces Air and Space Force heritage and the values of the Department of the Air Force (DAF). Examines general aspects of the DAF, service benefits, and opportunities for officers.
Registration Restrictions: Department approval
Corequisites: AIRS A150.

AIRS A102 Heritage and Values of the Department of the Air Force II **1 Credit**
Provides further examination of the Air and Space Forces. Examines general aspects of leadership, fundamentals, opportunities, and the evolution of the Department of the Air Force.
Registration Restrictions: Department approval
Prerequisites: AIRS A101 with a minimum grade of C.
Corequisites: AIRS A150.

AIRS A150 US Air Force Leadership Laboratory **1 Credit**
Provides practical leadership experience and military training to Air Force ROTC cadets. Includes field trips to different Air Force bases and requires weekly physical fitness training, marching and leadership exercises.
Special Note: This is a required course for Air Force ROTC students seeking an officer's commission. Students must be eligible for military service to take this course.
Registration Restrictions: Students must be enrolled in AFROTC academic classes unless they have completed all ROTC academic courses for program completion. Corequisites are AIRS A101 or AIRS A102 or AIRS A201 or AIRS A202 or AIRS A301 or AIRS A302 or AIRS A401 or AIRS A402.

AIRS A201 Team and Leadership Fundamentals I **1 Credit**
Introduces the fundamentals of leadership and team building. Demonstrates the layers of leadership, such as listening, self assessment, being a good follower, and problem solving efficiently.
Registration Restrictions: Department approval
Prerequisites: AIRS A102 with a minimum grade of C.
Corequisites: AIRS A150.

AIRS A202 Team and Leadership Fundamentals II **1 Credit**
Further examines the aspects of leadership, such as listening, self assessment, followership, and problem solving efficiently. Emphasizes stress management skills and human relations.
Registration Restrictions: Department approval
Prerequisites: AIRS A201 with a minimum grade of C.
Corequisites: AIRS A150.

AIRS A301 Leading People and Effective Communication I **3 Credits**
Builds on leadership fundamentals taught in AIRS A202. Analyzes leadership, management fundamentals, professional knowledge, Air Force personnel and evaluation systems, leadership ethics, and communication skills required of an Air Force junior officer.
Registration Restrictions: Department approval
Prerequisites: AIRS A202 with a minimum grade of C.
Corequisites: AIRS A150.

AIRS A302 Leading People and Effective Communication II **3 Credits**
Develops concepts of military professionalism and officership. Analyzes the application of military ethics to various scenarios. Covers Department of the Air Force evaluation, promotion, and assignment systems.
Registration Restrictions: Department approval
Prerequisites: AIRS A301 with a minimum grade of C.
Corequisites: AIRS A150.

AIRS A401 National Security, Leadership Responsibilities, and Commissioning Preparation I **3 Credits**
Investigates national security policy and process, advanced leadership, and air and space power functions. Examines the role of military officers and how they are directly tied to our National Security Strategy. Provides an overview of the complex social and political issues facing the military profession.
Registration Restrictions: Department approval
Prerequisites: AIRS A302 with a minimum grade of C.
Corequisites: AIRS A150.

AIRS A402 National Security, Leadership Responsibilities, and Commissioning Preparation II **3 Credits**
Conducts an in-depth examination of the military justice system and analyzes the application of military ethics. Further examines the role of military officers, career progression, and the DAF evaluation systems.
Registration Restrictions: Department approval
Prerequisites: AIRS A401 with a minimum grade of C.
Corequisites: AIRS A150.

Agriculture (AGRI)

Courses

AGRI A104 Conservation of Natural Resources **3 Credits**
Introduces how sustained yield, carrying capacity, and supply and demand are used in the skillful management and preservation of natural resources. Considers the economic aspects and conflicts in use for natural resources.
Special Note: Majors in all fields are welcome.

AGRI A138 Organic Gardening **1-3 Credits**
Introduces organic methods and materials for ecological agriculture covering soil management, crop rotations, weed control, pest management, garden planning, planting, harvesting, storage, French intensive methods, and compost.

AGRI A190 Selected Topics in Agriculture **1-3 Credits**
Introduces a special topic in agriculture of general interest. Topics as announced.
Special Note: May be repeated for a maximum of 12 credits with a change of subtitle.

Air Traffic Control (ATC)

Courses

ATC A143 ATC Regulations **3 Credits**
Introduces Federal Aviation Regulations governing the Air Traffic Control System and the role of air traffic control specialists within the federal system.

ATC A144 ATC Flight Procedures **3 Credits**
Presents types of navigation aids and their operational characteristics. Introduces navigational tools and references, and their utilization, charts, VFR flight planning, and aircraft operating characteristics.
Special Note: One hour in flight training device required.

ATC A147 Air Traffic Communications **3 Credits**
Examines communication techniques and standards required in air traffic control communications. Examines airport signage, aircraft identification, basic aviation numerology, and elements of various clearances.

ATC A239 Fundamentals of Nonradar Separation **3 Credits**
Explores procedures of instrument traffic control in the nonradar environment, with an emphasis on the transition to the radar environment. Emphasizes longitudinal, vertical and lateral separation of air traffic, as well as general control and strip board management.
Prerequisites: (ATC A144 with a minimum grade of C or ATP A116 with a minimum grade of C) and (ATC A143 with a minimum grade of C or ATP A200 with a minimum grade of C) and ATC A147 with a minimum grade of C.
Corequisites: ATC A239L.

ATC A239L Fundamentals of Nonradar Laboratory **2 Credits**
Explores the application of procedures of instrument traffic control in the nonradar environment, with an emphasis on the transition to the radar environment. Emphasizes longitudinal, vertical and lateral separation of air traffic, as well as general control and strip board management.
Special Note: Meets FAA requirements for minimum number of scenarios students must complete under Enhanced Collegiate Training Initiative (CTI).
Prerequisites: (ATC A143 with a minimum grade of C and ATC A144 with a minimum grade of C and ATC A147 with a minimum grade of C) or (ATP A116 with a minimum grade of C or ATP A200 with a minimum grade of C).
Corequisites: ATC A239.

ATC A242 ATC Terminal Radar Procedures **3 Credits**
Explores terminal radar operations and examines procedures of instrument traffic control in the terminal radar environment.
Prerequisites: ATC A143 with a minimum grade of C or ATP A116 with a minimum grade of C.

ATC A242L ATC Terminal Radar Procedures Lab **2 Credits**
Employs hands-on time in radar laboratory simulators to develop techniques for the separation, vectoring and speed control of air traffic in a terminal radar environment.
Special Note: Meets FAA requirements for minimum number of scenarios students must complete under Enhanced Collegiate Training Initiative (CTI).
Prerequisites: (ATC A143 with a minimum grade of C and ATC A144 with a minimum grade of C and ATC A147 with a minimum grade of C) or (ATP A116 with a minimum grade of C or ATP A200 with a minimum grade of C).
Corequisites: ATC A242.

ATC A243 ATC Enroute Procedures **3 Credits**
Explores procedures of instrument traffic control in radar and non-radar environments. Emphasizes longitudinal, vertical, and lateral separation of air traffic.
Prerequisites: ATC A144 with a minimum grade of C or ATP A116 with a minimum grade of C.

ATC A243L ATC Enroute Procedures Lab **2 Credits**
Explores techniques of longitudinal, vertical, and lateral separation of air traffic using lab scenarios designed to develop routine problem-solving processes to adapt the student controller to real-life ATC situations.
Special Note: Meets FAA requirements for minimum number of scenarios students must complete under Enhanced Collegiate Training Initiative (CTI).
Prerequisites: ATC A239 with a minimum grade of C and ATC A239L with a minimum grade of P or concurrent enrollment.
Corequisites: ATC A243.

ATC A251 Flight Dispatcher Overview **3 Credits**
Provides an overview of the flight dispatcher profession and prepares students for the transition from the academic to the work environment. Includes the study of meteorology, flight planning, and Federal Aviation Regulations (FAR) used by dispatchers.
Prerequisites: ATA A233 with a minimum grade of C and ATP A100 with a minimum grade of C and ATC A325 with a minimum grade of C and (ATC A143 with a minimum grade of C or ATP A200 with a minimum grade of C) and (ATC A144 with a minimum grade of C or ATP A116 with a minimum grade of C).

ATC A325 Tools for Weather Briefing **3 Credits**
Covers the operation and assessment of observation from three major weather sensors (Doppler radar, Weather Satellites, and Automated Surface Observation System (ASOS)), as well as analysis of weather charts and messages. Focuses on determining the state of the atmosphere, formulating trends, and their cause and effect.
Special Note: Qualifying air traffic control majors may receive Weather Observer Certification upon successful completion of Federal Aviation Administration knowledge exams.
Prerequisites: ATP A235 with a minimum grade of C.

ATC A341 Control Tower Operations **3 Credits**
Explains the separation standards of airport facilities in visual and instrument conditions. Includes operations of airport lighting systems, proper phraseology, separation requirements, control techniques and emergency actions. Includes detailed analysis of airport pattern sequencing, nonradar separation, and application of wake turbulence issues.
Prerequisites: (ATC A143 with a minimum grade of C or ATP A200 with a minimum grade of C) and (ATC A144 with a minimum grade of C or ATP A116 with a minimum grade of C) and ATC A147 with a minimum grade of C.
Corequisites: ATC A341L.

ATC A341L Control Tower Operations Lab **2 Credits**
Applies separation techniques at airport facilities in visual and instrument conditions. Includes application of proper phraseology, separation requirements, control techniques and emergency actions. Includes detailed analysis of airport pattern sequencing, nonradar separation, and application of wake turbulence issues.
Special Note: Meets FAA requirements for minimum number of scenarios students must complete under Enhanced Collegiate Training Initiative (CTI).
Prerequisites: (ATC A143 with a minimum grade of C and ATC A144 with a minimum grade of C and ATC A147 with a minimum grade of C) or (ATP A116 with a minimum grade of C or ATP A200 with a minimum grade of C).
Corequisites: ATC A341.

ATC A351 Flight Dispatcher Operations **3 Credits**
Prepares students for the practical application of previously acquired knowledge necessary to perform flight dispatcher functions. Focuses on the effects of weight and balance, performance, and flight characteristics in normal and abnormal flight.
Prerequisites: ATC A251 with a minimum grade of C.

ATC A440 Facility Operation and Administration **3 Credits**
Describes effective operation and administration of air traffic service facilities, as well as conflict resolution between the FAA and labor unions. Evaluates current issues and their potential impact on the National Airspace System (NAS).
Registration Restrictions: Sophomore, junior or senior standing
Prerequisites: ATP A100 with a minimum grade of C.

Alaska Native Studies (AKNS)

Courses

AKNS A101A Elementary Central Yup'ik Language I **4 Credits**
Introductory course for students with little, or no, prior knowledge of the Central Yup'ik language. Develops listening, speaking, reading, and writing skills in Central Yup'ik for effective communication at the elementary level. Addresses history of Alaska Native languages and culture.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER, UAA Alaska Native-Themed GER.

AKNS A101B Elementary Tlingit Language I **4 Credits**
Introductory course for students with little, or no, prior knowledge of the Tlingit language. Develops listening, speaking, reading, and writing skills in Tlingit for effective communication at the elementary level. Addresses history of Alaska Native languages and cultures.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER, UAA Alaska Native-Themed GER.

AKNS A101C Elementary Alaska Native Language I **4 Credits**
Introductory course for students with little, or no, prior knowledge of the offered Alaska Native language. Develops listening, speaking, reading, and writing skills in the Alaska Native language for effective communication at the elementary level. Addresses history of Alaska Native languages and cultures.
Special Note: May be repeated one time with a different language.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER, UAA Alaska Native-Themed GER.

AKNS A101D Elementary Inupiaq Language I **4 Credits**
Introductory course for students with little or no prior knowledge of the Inupiaq language. Develops listening, speaking, reading and writing skills in Inupiaq for effective communication at the elementary level. Addresses history of Alaska Native languages and culture.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER, UAA Alaska Native-Themed GER.

AKNS A101E Elementary Alutiiq Language I **4 Credits**
Introduces students with little or no prior knowledge to the Alutiiq language. Develops listening, speaking, reading and writing skills in Alutiiq for effective communication at the elementary level. Addresses history of Alaska Native languages and cultures.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER, UAA Alaska Native-Themed GER.

AKNS A101F Elementary Dena'ina Language I **4 Credits**
Introductory course for students with little or no prior knowledge of the Dena'ina Athabascan language. Develops listening, speaking, reading and writing skills in Dena'ina for effective communication at the elementary level. Addresses history of Alaska Native languages and cultures.
Special Note: Class conducted in the Dena'ina language.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER, UAA Alaska Native-Themed GER.

AKNS A101H Elementary Ahtna Language I **4 Credits**
Introductory course for students with little or no prior knowledge of the Ahtna language. Develops listening, speaking, reading and writing skills in Ahtna Athabascan for effective communication at the elementary level. Addresses history of Alaska Native languages and culture.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER, UAA Alaska Native-Themed GER.

AKNS A101I Elementary Unangam Tunuu I **4 Credits**
Introduces students with little, or no, prior knowledge to the Unangam Tunuu language. Develops listening, speaking, reading, and writing skills in Unangam Tunuu for effective communication at the elementary level. Addresses history of Alaska Native languages and culture.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER, UAA Alaska Native-Themed GER.

AKNS A102A Elementary Central Yup'ik Language II **4 Credits**
Continues introductory course. Further develops elementary listening, speaking, reading, and writing skills in Central Yup'ik for effective communication. Enhances appreciation of Alaska Native and cross-cultural perspectives.
Prerequisites: AKNS A101A with a minimum grade of C.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER, UAA Alaska Native-Themed GER.

AKNS A102B Elementary Tlingit Language II **4 Credits**
Continues introductory course. Develops elementary listening, speaking, reading, and writing skills in Tlingit for effective communication. Enhances appreciation of Alaska Native and cross-cultural perspectives.
Prerequisites: AKNS A101B with a minimum grade of C.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER, UAA Alaska Native-Themed GER.

AKNS A102C Elementary Alaska Native Language II **4 Credits**
Continuation of introductory course. Further develops elementary listening, speaking, reading, and writing skills in a selected Alaska Native language for effective communication. Enhances appreciation of Alaska Native and cross-cultural perspectives.
Special Note: May be repeated one time with a different language.
Registration Restrictions: Same language as taken in AKNS A101C
Prerequisites: AKNS A101C with a minimum grade of C.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER, UAA Alaska Native-Themed GER.

AKNS A102D Elementary Inupiaq Language II **4 Credits**
Continuation of introductory course. Further develops elementary listening, speaking, reading and writing skills in Inupiaq for effective communication. Enhances appreciation of Alaska Native and cross-cultural perspectives.
Prerequisites: AKNS A101D with a minimum grade of D.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER, UAA Alaska Native-Themed GER.

AKNS A102E Elementary Alutiiq Language II **4 Credits**
Continues developing elementary listening, speaking, reading and writing skills in Alutiiq. Enhances appreciation of Alaska Native and cross-cultural perspectives.
Prerequisites: AKNS A101E with a minimum grade of C.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER, UAA Alaska Native-Themed GER.

AKNS A102F Elementary Dena'ina Language II **4 Credits**
Continues introductory course. Further develops elementary listening, speaking, reading and writing skills in Dena'ina for effective communication. Enhances appreciation of Alaska Native and cross-cultural perspectives.
May Be Stacked With: AKNS A114F
Prerequisites: AKNS A101F with a minimum grade of C.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER, UAA Alaska Native-Themed GER.

AKNS A102H Elementary Ahtna Language II **4 Credits**
Continuation of introductory course. Further develops elementary listening, speaking, reading and writing skills in Ahtna Athabascan for effective communication. Enhances appreciation of Alaska Native and cross-cultural perspectives.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER, UAA Alaska Native-Themed GER.

AKNS A102I Elementary Unangam Tunuu II **4 Credits**
Continues introductory course. Develops elementary listening, speaking, reading, and writing skills in Unangam Tunuu for effective communication. Enhances appreciation of Alaska Native and cross-cultural perspectives.
Prerequisites: AKNS A101I with a minimum grade of C.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER, UAA Alaska Native-Themed GER.

AKNS A114A Central Yup'ik Reading and Writing **3 Credits**
Enhances reading and writing Central Yup'ik for students with oral proficiency in the Central Yup'ik language. Introduces alphabet and phonetic classification, dialects, orthography and a history of the Central Yup'ik writing system. Enhances cross-cultural perspectives.
Registration Restrictions: Students should have taken a minimum of one semester of Yup'ik I before they enroll in this class, or have fluency in Yup'ik or instructor permission.
Prerequisites: AKNS A101A with a minimum grade of C.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER, UAA Alaska Native-Themed GER.

AKNS A114B Tlingit Reading and Writing **3 Credits**
Enhances reading and writing Tlingit for students with oral proficiency in the Tlingit language. Introduces alphabet and phonetic classification, dialects, and a history of the Tlingit writing system. Enhances cross-cultural perspectives.
Registration Restrictions: Students should have successfully completed at least one semester of Elementary Tlingit, or have basic fluency in the Tlingit language.
Prerequisites: AKNS A101B with a minimum grade of C.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER, UAA Alaska Native-Themed GER.

AKNS A114C Alaska Native Language Reading and Writing **3 Credits**
Enhances reading and writing in an Alaska Native language for students with oral proficiency in the Alaska Native language. Introduces alphabet and phonetic classification, dialects, and a history of the selected Alaska Native language writing system. Enhances cross-cultural perspectives.
Registration Restrictions: Fluency in Alaska Native language and instructor approval required. Must be same language as AKNS A101C.
Attributes: UAA Intercultural Fluency GER, UAA Alaska Native-Themed GER.

AKNS A114E Alutiiq and Sugpiaq Reading and Writing **3 Credits**
Introduces reading and writing in the Alutiiq/Sugpiaq language for students with some listening comprehension and verbal skills in Alutiiq (Sugt'stun). Covers alphabet and phonetic classification, dialects, and a history of the Alutiiq writing system. Enhances cross-cultural perspectives.
Registration Restrictions: Prior exposure to spoken Alutiiq and instructor permission.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER, UAA Alaska Native-Themed GER.

AKNS A114F Dena'ina Reading and Writing **4 Credits**
Introduces reading and writing Dena'ina for students with oral proficiency in the Dena'ina language. Introduces alphabet and phonetic classification, dialects, orthography and a history of the Dena'ina writing system. Enhances cross-cultural perspectives.
Registration Restrictions: Proficiency in speaking Dena'ina or instructor permission may substitute for the required prerequisite course(s).
May Be Stacked With: AKNS A102F
Prerequisites: AKNS A101F with a minimum grade of C.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER, UAA Alaska Native-Themed GER.

AKNS A114H Ahtna Reading and Writing **3 Credits**
Introduces reading and writing Ahtna for students with oral proficiency in the Ahtna language. Students will be introduced to alphabet and phonetic classification, dialects, orthography and a history of the Ahtna writing system. Enhances cross-cultural perspectives.
Registration Restrictions: Students should have taken a minimum of one semester of Ahtna before they enroll in this class, or have fluency in Ahtna or instructor permission.
Prerequisites: AKNS A101H with a minimum grade of C.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER, UAA Alaska Native-Themed GER.

AKNS A114I Unangam Tunuu Reading & Writing **3 Credits**
Introduces reading and writing Unangam Tunuu for students with oral proficiency in the Unangam Tunuu language. Students will be introduced to alphabet and phonetic classification, dialects, orthography and a history of the Unangam Tunuu writing system. Enhances cross-cultural perspectives.
Registration Restrictions: Students should have taken a minimum of one semester of Unangam Tunuu I before they enroll in this class, or have fluency in Unangam Tunuu, or instructor permission.
Prerequisites: AKNS A101I with a minimum grade of C.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER, UAA Alaska Native-Themed GER.

AKNS A182 Grant Writing for Alaska Native Communities **1 Credit**
Introduces grant writing focused on community-based grant proposals, including successful approaches appropriate to rural and Alaska Native communities. Includes grant tips, reviewer scoring, grant trends and proposal components.
Attributes: UAA Intercultural Fluency GER, UAA Alaska Native-Themed GER.

AKNS A190 Selected Topics: Alaska Native Cultural Skills **1-3 Credits**
Focuses on an applied traditional Alaska Native skill. Covers historical and modern practices, as well as traditional knowledge and mentorship learning of Alaska Native practices such as arts, technologies or culinary techniques.
Special Note: May be repeated for a maximum of 9 credits with change of subtitle.
Attributes: UAA Intercultural Fluency GER, UAA Alaska Native-Themed GER.

AKNS A201 Alaska Native Perspectives **3 Credits**
Introduces Alaska Native perspectives on kinship, time, philosophy, symbolism, spirituality, communication, justice, oral traditions, storytelling, material culture, and the relationship to the environment. Includes the diversity of Alaska Native peoples, languages, and worldviews and how these influence contemporary and global issues.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER, UAA Alaska Native-Themed GER.

AKNS A215 Music of Alaska Natives and Indigenous Peoples of Northern Regions **3 Credits**
Explores music and dance practices of Alaska Native and Indigenous peoples of the circumpolar north by region and culture group. Interdisciplinary methods will be used to examine the historical and social dynamics behind changing musical and cultural traditions. Fundamentals of ethnomusicology theory and research methods will be introduced.
Registration Restrictions: AKNS A201 or MUS A111 recommended prior to registering for this course.
Crosslisted With: MUS A215.
Prerequisites: WRTG A111 with a minimum grade of C.
Attributes: UAA Fine Arts GER, UAA Intercultural Fluency GER, UAA Alaska Native-Themed GER.

AKNS A216 World Indigenous Music **3 Credits**
Surveys Indigenous music cultures of the world. Examines musical traditions of Africa, the Americas, Asia, Europe, the Near/Far East, and Oceania within the context of musical styles and culture.
Crosslisted With: MUS A216
Prerequisites: WRTG A111 with a minimum grade of C.
Attributes: UAA Fine Arts GER, UAA Intercultural Fluency GER, UAA Alaska Native-Themed GER.

AKNS A218A Alaska Native Drummaking Techniques: Athabascan and Southeast Style **3 Credits**
Studio course in which students learn the fundamentals of making hand drums in the Athabascan and Southeast Alaskan Indian style. Students will also study the living tradition of Alaska Native drum practices.
Crosslisted With: MUS A218A
Attributes: UAA Alaska Native-Themed GER.

AKNS A218B Alaska Native Drummaking Techniques: Inupiaq and Yup'ik Style **3 Credits**
Studio course in which students learn the fundamentals of making handheld frame drums in the Inupiaq and Yup'ik Alaskan Native tradition. Students will also study the living tradition of Alaska Native drum practices.
Crosslisted With: MUS A218B
Attributes: UAA Alaska Native-Themed GER.

AKNS A230 Oral Traditions of Alaska Native People **3 Credits**
Introduces Alaska Native oral traditions, both the stories told by different Alaska Native cultures and the indigenous languages that convey those stories. Examines the role of oral traditions in sharing knowledge and beliefs in Alaska Native cultures, the importance of indigenous languages in conveying ideas, the translation of oral traditions into recorded or printed media, and contemporary settings where oral traditions continue.
Attributes: UAA Humanities GER, UAA Alaska Native-Themed GER.

AKNS A240 Alaska Native Cultural Orientation - Alutiiq/Sugpiaq **3 Credits**
Holistic introduction to the history, culture, arts, politics, and contemporary issues in the Alutiiq/Sugpiaq region. Designed for professionals and educators working with Native community members and families. Enhances cross-cultural perspectives.
Attributes: UAA Alaska Native-Themed GER.

AKNS A240A Alaska Native Cultural Orientation: Yup'ik **3 Credits**
Introduces students to the history, culture, arts, politics, and contemporary issues in the Yup'ik region. Provides students with professionals and educators working with Native community members and families. Enhances cross-cultural perspectives.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER, UAA Alaska Native-Themed GER.

AKNS A240F Alaska Native Cultural Orientation: Dena'ina **3 Credits**
Provides holistic introduction to the history, culture, arts, politics, and contemporary issues in the Dena'ina region. Designed for students, professionals and educators working with Native community members and families. Enhances cross-cultural perspectives.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER, UAA Alaska Native-Themed GER.

AKNS A240H Alaska Native Cultural Orientation: Ahtna **3 Credits**
Provides holistic introduction to the history, culture, arts, politics, and contemporary issues in the Ahtna region. Designed for students, professionals and educators working with Native community members and families. Enhances cross-cultural perspectives.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER, UAA Alaska Native-Themed GER.

AKNS A240I Alaska Native Cultural Orientation: Unangax# **3 Credits**
Provides holistic introduction to the history, culture, arts, politics, and contemporary issues in the Unangax# region. Designed for students, professionals and educators working with Native community members and families. Enhances cross-cultural perspectives.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER, UAA Alaska Native-Themed GER.

AKNS A261 Alaska Native Art History **3 Credits**
Introduces Alaska Native art forms, past and present. Examines the uses of art in Alaska Native cultures, materials and methods used in creating arts, differences between Native and Western approaches to art, and contemporary approaches to customary art forms. Fosters appreciation of Alaska Native arts and cultures exposing students to world-class artists and collections here in Alaska as well as introducing them to the epistemological underpinnings of Alaska Native art forms.
Attributes: UAA Fine Arts GER, UAA Alaska Native-Themed GER.

AKNS A290 Topics in Alaska Native Studies **1-3 Credits**
Examines contemporary issues in Alaska Native studies at an introductory level. Course can include political, social and historical aspects of Alaska Native peoples and culture.
Special Note: Subtitle varies. May be repeated for credit up to three times with a different subtitle.
Attributes: UAA Alaska Native-Themed GER.

AKNS A292A Alaska Native Language Apprenticeship **1-3 Credits**
Introduces language learning through apprenticeship with fluent speakers of a specific Alaska Native language in an individual or small-group workshop format. Covers strategies and techniques of the master-apprentice method and provides intensive study with fluent speakers to increase oral fluency. Enhances cross-cultural perspectives.
Registration Restrictions: Instructor permission
Attributes: UAA Intercultural Fluency GER, UAA Alaska Native-Themed GER.

AKNS A292B Alaska Native Language Conversational Fluency Intensive **1-3 Credits**
Provides intensive study of conversational speech in an Alaska Native language. Maximizes fluency development for students with previous coursework or life experience with an Alaska Native language.
Registration Restrictions: Course prerequisite or instructor permission
Prerequisites: AKNS A101A with a minimum grade of C or AKNS A101B with a minimum grade of C or AKNS A101C with a minimum grade of C or AKNS A101D with a minimum grade of C or AKNS A101E with a minimum grade of C or AKNS A101F with a minimum grade of C or AKNS A101H with a minimum grade of C or AKNS A101I with a minimum grade of C.
Attributes: UAA Intercultural Fluency GER, UAA Alaska Native-Themed GER.

AKNS A301 Introduction to Indigenous Language Revitalization **3 Credits**
Explores Indigenous language revitalization movements, activities, trends in social linguistics, and investigation of terminology. Covers processes involved in language policy, planning and advocacy, and effective methods that have reversed language shift.
Special Note: Previous experience or background with an Alaska Native language is recommended.

AKNS A313 Tribes, Nations and Peoples **3 Credits**
Analyzes and evaluates the history of expansion, invasion, contemporary questions, and issues that confront indigenous tribes, nations and peoples, including their political, social, economic, and cultural activities. Investigates corresponding relations with non-indigenous governments and private entities as well as international developments concerning indigenous human rights.
Crosslisted With: PS A313
Prerequisites: AKNS A201 with a minimum grade of C or PS A102 with a minimum grade of C.
Attributes: UAA Alaska Native-Themed GER.

AKNS A346 Alaska Native Politics **3 Credits**
Introduction to historical relationships among federal, territorial, state and local laws and policies as they affect Alaska Natives and Native/non-Native relations. Includes contemporary issues and comparative case studies.
Special Note: May be used to fulfill the Alaska studies requirement for teacher certification.
Registration Restrictions: Junior or senior standing
Crosslisted With: PS A346
Attributes: UAA Alaska Native-Themed GER.

AKNS A356 Yup'ik Music and Dance Ensemble **3 Credits**
Teaches movement, singing, drumming and the cultural contextual aspects of Alaska Native dance, including history, culture and connection to language. Designed for students who are interested in learning about Alaska Native creative expression. Ensemble course in Central Yup'ik Alaska Native music and dance.
Special Note: May be repeated for a maximum of 9 credits.
Crosslisted With: MUS A356
Prerequisites: AKNS A201 with a minimum grade of C or (AKNS A215 with a minimum grade of C or MUS A215 with a minimum grade of C) or (AKNS A216 with a minimum grade of C or MUS A216 with a minimum grade of C).
Attributes: UAA Alaska Native-Themed GER.

AKNS A375 Principles of Federal Indian Law and Policy **3 Credits**
Introduces principles of Federal Indian law and policy with an emphasis on their impacts in Alaska. Covers relevant statutes and court rulings, along with their impacts. Emphasizes the Indian Child Welfare Act and the Special Domestic Violence Criminal Jurisdiction from the Violence Against Women Act.
Prerequisites: AKNS A201 with a minimum grade of C and WRTG A111 with a minimum grade of C.

AKNS A390 Intermediate Topics in Alaska Native Studies **1-3 Credits**
Examines topics in Alaska Native studies at an intermediate level. Includes political, social, contemporary and historical aspects of Alaska Native peoples and cultures.
Special Note: Subtitle varies. May be repeated twice for credit with a different subtitle.
Prerequisites: AKNS A201 with a minimum grade of C or ANTH A200 with a minimum grade of C.
Attributes: UAA Intercultural Fluency GER, UAA Alaska Native-Themed GER.

AKNS A395 Native Language Instructor Practicum **3 Credits**
Provides supervised Field experience in Alaska Native Language Instruction. Students develop, implement and evaluate elements of a comprehensive, developmentally appropriate curriculum and learning environment.
Special Note: Requires 125 hours of field experience. May be repeated once with a different language.
Registration Restrictions: Departmental approval, admission to practicum Alaska Native Language Instructor Certificate.
Prerequisites: (AKNS A114F with a minimum grade of C or AKNS A114H with a minimum grade of C) and AKNS A301 with a minimum grade of C or concurrent enrollment.

AKNS A421 Indigenous Language Curriculum Design & Instruction **3 Credits**
Explores curriculum design methods and methodology in Indigenous language(s). Focuses on culturally appropriate curriculum planning, development, instruction and assessment.
Prerequisites: (AKNS A101A with a minimum grade of C or AKNS A101B with a minimum grade of C or AKNS A101C with a minimum grade of C or AKNS A101D with a minimum grade of C or AKNS A101E with a minimum grade of C or AKNS A101F with a minimum grade of C or AKNS A101H with a minimum grade of C or AKNS A101I with a minimum grade of C) and (AKNS A240A with a minimum grade of C or AKNS A240E with a minimum grade of C or AKNS A240F with a minimum grade of C or AKNS A240H with a minimum grade of C or AKNS A240I with a minimum grade of C).
Attributes: UAA Intercultural Fluency GER, UAA Alaska Native-Themed GER.

AKNS A432 Indigenous Approaches to Well-Being **3 Credits**
Examines Indigenous traditional knowledge and cultural perspectives on the life cycle and approaches to holistic well-being. Designed to guide students in promoting, nurturing, and encouraging the exploration of Indigenous traditional healing practices, while protecting the sacred from exploitation and appropriation.
Prerequisites: AKNS A201 with a minimum grade of C or AKNS A346 with a minimum grade of C or ANTH A200 with a minimum grade of C or PS A346 with a minimum grade of C.

AKNS A461 Decolonizing Methodologies **3 Credits**
Introduces research methods informed by Indigenous ways of producing and sharing knowledge, ethical considerations, collaborative research design with Indigenous communities and peoples, the sharing of research materials and outcomes, and multivocal authorship. Examines the process of integrating responsibilities as a researcher with respect for cultural property rights and ownership.
Crosslisted With: ANTH A461.
Prerequisites: AKNS A201 with a minimum grade of C or ANTH A200 with a minimum grade of C or ANTH A202 with a minimum grade of C.
Attributes: UAA Alaska Native-Themed GER.

AKNS A482 Indigenous Knowledge(s) and the Sciences in Global Contexts **3 Credits**
Explores ideologies underlying the sciences and Indigenous Knowledge(s) (IK) including how aspects of each paradigm converge, diverge, or negotiate parallel paths. Surveys IK and Western science methodologies, including how paradigms are constructed and reconstructed through the influence and engagement of Indigenous peoples.
Special Note: Course includes 7 weeks of videoconference and online exchanges with Victoria University of Wellington Te Kawa a Maui-School of Maori Studies students and co-instructor/UAA AKNS affiliate faculty Dr. Ocean Mercier (PhD-Physics).
Prerequisites: AKNS A201 with a minimum grade of C or ANTH A200 with a minimum grade of C.

AKNS A490 Advanced Topics in Alaska Native Studies **3 Credits**
Examines topics on contemporary issues in Alaska Native studies at an advanced level. Course can include political, social and historical aspects of Alaska Native people and culture.
Special Note: May be repeated twice for credit with a change of subtitle.
Registration Restrictions: Junior or senior standing
Prerequisites: AKNS A201 with a minimum grade of C.

AKNS A492 Cultural Knowledge of Native Elders **3 Credits**
Provides a hands-on experiential learning encounter for the student. Elders from different Alaska Native cultures will be invited to participate and impart knowledge to the students. Fosters an appreciation of diversity across cultures, a broader understanding of creative expression, and Indigenous worldview.
Special Note: Students enrolling in this course should have either upper-division class standing with a strong background in the social sciences or appropriate life experience, or a combination of the two prior to enrolling in this course.
Prerequisites: AKNS A201 with a minimum grade of C or ANTH A200 with a minimum grade of C.
Attributes: UAA Intercultural Fluency GER, UAA Alaska Native-Themed GER.

AKNS A495 Alaska Native Studies Internship **1-3 Credits**
Provides a supervised on-campus or off-campus internship which provides an opportunity for students to work in the professional environment of an Alaska Native organization. Students perform significant work and/or research and develop professional skills and networks. The internship requires a formal agreement between the student, the faculty member and the supervisor.
Special Note: May be repeated for a maximum of 6 credits.
Registration Restrictions: Instructor permission, upper division standing and knowledge of Alaska Native issues required
Prerequisites: AKNS A201 with a minimum grade of D.

AKNS A495A Indigenous Language Instructor Internship **3 Credits**
Provides a supervised on-campus or off-campus internship opportunity for students to work in the professional environment of an Alaska Native organization. Allows students to perform significant work and/or research and develop professional skills and networks. Requires a formal agreement between the student, the faculty member and the supervisor.
Special Note: May be repeated for a maximum of 6 credits.
Registration Restrictions: Instructor approval.
Attributes: UAA Intercultural Fluency GER, UAA Alaska Native-Themed GER.

American Sign Language (ASL)

Courses

ASL A101 Elementary American Sign Language I **4 Credits**
Introductory course for students with no previous knowledge of American Sign Language (ASL). Develops receptive and expressive signing skills in ASL for effective communication at the elementary level. Students gain understanding of basic cross-cultural perspectives.
Special Note: Course conducted in American Sign Language.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER.

ASL A102 Elementary American Sign Language II **4 Credits**
Continuation of introductory course. Further develops elementary receptive and expressive signing skills in American Sign Language for effective communication. Enhances appreciation of cross-cultural perspectives.
Special Note: Course conducted in American Sign Language.
Prerequisites: ASL A101 with a minimum grade of C.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER.

ASL A201 Intermediate American Sign Language I **4 Credits**
Intermediate course for students with basic knowledge of American Sign Language. Enhances receptive and expressive signing skills for effective communication at the intermediate level. Students critically examine diverse cultural perspectives.
Special Note: Course conducted in American Sign Language.
Prerequisites: ASL A102 with a minimum grade of C.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER.

ASL A202 Intermediate American Sign Language II **4 Credits**
Continuation of first semester in intermediate American Sign Language (ASL). Further develops receptive and expressive signing proficiency for effective communication and in preparation for advanced study of ASL. Students interpret diverse cultural perspectives.
Special Note: Course conducted in American Sign Language.
Prerequisites: ASL A201 with a minimum grade of C.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER.

Anthropology (ANTH)

Courses

ANTH A101 Introduction to Anthropology **3 Credits**
Introduces fundamentals of the four subfields of anthropology: archaeology, cultural anthropology, biological anthropology and anthropological linguistics. Emphasizes basic ideas, perspectives and methods of anthropology.
Special Note: Recommended for non-majors. Majors can apply it to their degree as a program elective.
Attributes: UAA Intercultural Fluency GER, UAA Social Sciences GER.

ANTH A111 Ancient Civilizations **3 Credits**
Follows the path of the first humans to the establishment of the earliest civilizations around the world. Relies on archaeological, biological, cultural, and historical information. Examines art, economics, politics, religion, and other aspects of what it means to be human.
Attributes: UAA Intercultural Fluency GER, UAA Social Sciences GER.

ANTH A200 Alaska Native Cultures **3 Credits**
Surveys Alaska Native peoples, including cultural heritage, ethnohistory, and contemporary experiences from an anthropological perspective. Covers environmental settings, linguistic subdivisions, precolonial sociocultural organization and subsistence patterns, contact with non-Native groups, and key issues, including education, politics and law.
Attributes: UAA Intercultural Fluency GER, UAA Alaska Native-Themed GER, UAA Social Sciences GER.

ANTH A202 Cultural Anthropology **3 Credits**
Introduces the fundamental concepts, terminology, ethical considerations and methods in the study of culture and cultural change. Emphasizes cross-cultural comparisons of sociopolitical systems, kinship, ethnicity, gender, subsistence, religion and art, integrating applied, local, regional and global perspectives.
Attributes: UAA Intercultural Fluency GER, UAA Social Sciences GER.

ANTH A205 Biological Anthropology **3 Credits**
Introduces biocultural perspectives on human and non-human primate behavior, biological diversity, and the development of the theory of evolution. Examines the fossil record, genetic and epigenetic variation, physiological adaptations, and applied research in forensic anthropology and bioarchaeology.
Attributes: UAA Intercultural Fluency GER, UAA Natural Sciences GER.

ANTH A205L Biological Anthropology Laboratory **1 Credit**
Introduces students to laboratory practice in biological anthropology. Includes the fossil record, genetic and epigenetic variation, and physiological adaptations of humans and non-human primates.
Prerequisites: ANTH A205 with a minimum grade of C or concurrent enrollment.
Attributes: UAA Intercultural Fluency GER, UAA Natural Sci Lab Only GER.

ANTH A210 Linguistic Anthropology **3 Credits**
Introduces the fundamental concepts, terminology, ethical considerations and methods in the anthropological study of language. Explores topics in language and culture, including the origin of human speech, language structure, sociolinguistics, historical linguistics, language change and variation, multilingualism, language endangerment and revitalization, language and gender, and folk taxonomies.
Attributes: UAA Intercultural Fluency GER.

ANTH A211 Archaeology **3 Credits**
Introduces the historical development, basic concepts, terminology, ethical considerations, theories, and methods of archaeology with an emphasis on North American approaches.
Attributes: UAA Intercultural Fluency GER, UAA Natural Sciences GER.

ANTH A211L Archaeology Laboratory **1 Credit**
Introduces students to archaeological laboratory practice. Includes archaeological survey, mapping, material identification and analysis, 3D modeling, geoarchaeology, and other archaeological techniques.
Prerequisites: ANTH A211 with a minimum grade of C or concurrent enrollment.
Attributes: UAA Natural Sci Lab Only GER.

ANTH A290 Selected Topics in Anthropology **1-3 Credits**
Examines special topics of general interest in anthropology.
Special Note: May be repeated for a maximum of 6 credits with a change of subtitle.

ANTH A390A Arctic and Subarctic Cultures **3 Credits**
Explores anthropological perspectives on Arctic and Subarctic peoples, focusing on Indigenous cultures, settlement, history, languages, social transformations and contemporary experiences. Cultural or sub-regional focus will vary by semester.
Special Note: May be repeated once with a change of subtitle.
Prerequisites: ANTH A200 with a minimum grade of C or ANTH A202 with a minimum grade of C or ANTH A211 with a minimum grade of C or AKNS A201 with a minimum grade of C or INTL A101 with a minimum grade of C or GEOG A101 with a minimum grade of C.
Attributes: UAA Alaska Native-Themed GER.

ANTH A390B World Cultures **3 Credits**
Explores anthropological perspectives on world peoples, focusing on Indigenous cultures, settlement, history, languages, social transformations and contemporary experiences. Cultural or regional focus will vary by semester.
Special Note: May be repeated once with a change of subtitle.
Prerequisites: ANTH A111 with a minimum grade of C or ANTH A202 with a minimum grade of C or ANTH A211 with a minimum grade of C or INTL A101 with a minimum grade of C or GEOG A101 with a minimum grade of C.

ANTH A390C Comparative Culture Studies **3 Credits**
Explores a specific topic of contemporary anthropological inquiry, providing comparative, in-depth insights from at least two of the four subfields of anthropology. Survey of ethnology/ethnography on the topic. Topical focus will vary by semester.
Special Note: May be repeated once with a change of subtitle.
Prerequisites: ANTH A101 with a minimum grade of C or ANTH A202 with a minimum grade of C or ANTH A205 with a minimum grade of C or ANTH A210 with a minimum grade of C or AKNS A201 with a minimum grade of C or INTL A101 with a minimum grade of C or GEOG A101 with a minimum grade of C or SOC A101 with a minimum grade of C or SOC A201 with a minimum grade of C.

ANTH A410 Anthropological Theory **3 Credits**
Traces the development of the discipline of anthropology. Presents key leaders and theoretical paradigms, concluding with contemporary practice.
Special Note: Senior seminar for anthropology majors includes individual creation of student ePortfolio highlighting learning over the course of major. Not available for credit to students who have completed ANTH A610.
Registration Restrictions: Admission to the Bachelor of Arts in Anthropology, Bachelor of Science in Anthropology or Minor in Anthropology; senior standing; and 9 credits of 300- and/or 400-level ANTH courses with a minimum grade of C
May Be Stacked With: ANTH A610

ANTH A411 Archaeological Theory **3 Credits**
Provides a survey of theoretical approaches and practice in contemporary archaeology. Includes class discussions based on readings and student presentations.
Special Note: Not available for credit to students who have completed ANTH A611.
Registration Restrictions: Junior or senior standing.
May Be Stacked With: ANTH A611
Prerequisites: ANTH A205 with a minimum grade of C or ANTH A211 with a minimum grade of C.

ANTH A415 Applied Anthropology **3 Credits**
Explores history, theory and methods of applied anthropology in the United States with some emphasis on applying anthropology in Alaska.
Special Note: Not available for credit to students who have completed ANTH A615.
May Be Stacked With: ANTH A615
Prerequisites: ANTH A202 with a minimum grade of C.

ANTH A430 Social Science Research Methods **3 Credits**
Introduces modes of scientific data gathering, analysis, and interpretation in the social sciences. Includes the logic of scientific inquiry, research design, data collection and analysis, reporting results, community/partner collaboration, and ethics in social science research.
Special Note: Not available for credit to students who have completed ANTH A630.
Crosslisted With: SOC A430
May Be Stacked With: ANTH A630
Prerequisites: ANTH A101 with a minimum grade of C or ANTH A202 with a minimum grade of C or ENVI A212 with a minimum grade of C or GEOG A101 with a minimum grade of C or HS A220 with a minimum grade of C or HS A230 with a minimum grade of C or INTL A101 with a minimum grade of C or JPC A104 with a minimum grade of C or PS A102 with a minimum grade of C or PSY A111 with a minimum grade of C or SOC A101 with a minimum grade of C or SOC A201 with a minimum grade of C or SWK A106 with a minimum grade of C.

ANTH A431 Field Methods in Archaeology and Bioanthropology **1-8 Credits**
Techniques of archaeological and bioarchaeological survey, mapping and excavation, including archaeological and bioarchaeological data recovery, recording techniques, cataloging and laboratory processing. Project settings may include historic sites, building documentation, archival research, bioarchaeological or forensics themed field schools, and pre-contact Indigenous sites within or outside of Alaska.
Special Note: May be repeated for a maximum of 16 credits.
Registration Restrictions: Instructor approval
May Be Stacked With: ANTH A631
Prerequisites: ANTH A211 with a minimum grade of C.

ANTH A452 Culture and Human Biodiversity **3 Credits**
Applies modern biocultural theory - including genetics, epigenetics, growth and development, and evolutionary biology - to highlight current understandings of human phenotypic, gender and sexual variation. Explores the historical role that biological anthropology played in the construction of race and gender.
Special Note: Not available for credit to students who have completed ANTH A652.
Registration Restrictions: Junior or senior standing and Completion of Tier 1 (basic college-level) GER courses
May Be Stacked With: ANTH A652
Prerequisites: ANTH A101 with a minimum grade of C or ANTH A202 with a minimum grade of C or ANTH A205 with a minimum grade of C or BIOL A102 with a minimum grade of C or BIOL A108 with a minimum grade of C or SOC A101 with a minimum grade of C.
Attributes: UAA Integrative Capstone GER, UAA Intercultural Fluency GER.

ANTH A454 Culture and Ecology **3 Credits**
Explores the integration of cultural and ecological systems, examining sociopolitical dimensions of environmental change and ecological knowledge.
Special Note: Not available for credit to students who have completed ANTH A654.
Registration Restrictions: Junior or senior standing and completion of Tier 1 (basic college-level) GER courses
May Be Stacked With: ANTH A654
Attributes: UAA Integrative Capstone GER, UAA Intercultural Fluency GER.

ANTH A455 Culture and Health **3 Credits**
Surveys the relationship of human culture to health and disease. Includes ancient disease and impact on human evolution, interrelationship between biology and culture, alternative health systems, and applicability to contemporary problems.
Special Note: Not available for credit to students who have completed ANTH A655.
Registration Restrictions: Junior or senior standing and completion of Tier 1 (basic college-level) GER courses
May Be Stacked With: ANTH A655
Prerequisites: ANTH A202 with a minimum grade of C or ANTH A205 with a minimum grade of C.
Attributes: UAA Integrative Capstone GER, UAA Intercultural Fluency GER.

ANTH A458 Applied Ethics in Anthropology **3 Credits**
Examines the ethical issues that confront anthropologists, and the responsibilities they have to the public, the discipline, their colleagues and members of the communities with whom they are working. Course topic will vary with focus on a different subfield of anthropology.
Special Note: May be repeated once with a change of subtitle. Not available for credit to students who have completed ANTH A658 with the same subtitle.
May Be Stacked With: ANTH A658
Prerequisites: ANTH A202 with a minimum grade of C or ANTH A205 with a minimum grade of C or ANTH A210 with a minimum grade of C or ANTH A211 with a minimum grade of C.

ANTH A461 Decolonizing Methodologies **3 Credits**
Introduces research methods informed by Indigenous ways of producing and sharing knowledge, ethical considerations, collaborative research design with Indigenous communities and peoples, the sharing of research materials and outcomes, and multivocal authorship. Examines the process of integrating responsibilities as a researcher with respect for cultural property rights and ownership.
Crosslisted With: AKNS A461.
Prerequisites: AKNS A201 with a minimum grade of C or ANTH A200 with a minimum grade of C or ANTH A202 with a minimum grade of C.
Attributes: UAA Alaska Native-Themed GER.

ANTH A464 Culture and Globalization **3 Credits**
Explores the relationship between culture and globalization. Examines global capitalism and ethnographic experiences in the context of transnational migration and diasporas, and the influence of new information technologies and media on values, beliefs and practices.
Special Note: Not available for credit to students who have completed ANTH A664.
Registration Restrictions: Junior or senior standing and completion of Tier 1 (basic college-level) GER courses
May Be Stacked With: ANTH A664
Prerequisites: ANTH A101 with a minimum grade of C or ANTH A111 with a minimum grade of C or ANTH A202 with a minimum grade of C.
Attributes: UAA Integrative Capstone GER, UAA Intercultural Fluency GER.

ANTH A477 Cultural Resource Management **3 Credits**
Provides an integrated anthropological perspective on historic preservation and the management of cultural resources in the United States. Includes the history of resource protection legislation, the design and implementation of cultural resource management projects, and applications of relevant cultural resource laws, including ethical issues.
Special Note: Not available for credit to students who have completed ANTH A677.
Registration Restrictions: Junior or senior standing.
May Be Stacked With: ANTH A677

ANTH A480 Analytical Techniques in Archaeology and Bioanthropology **4 Credits**
Critically examines data quality, sampling, quantification and interpretation of material remains with an emphasis on laboratory methods. Topics may include human osteology, zooarchaeology, lithics, ceramics and archaeobotany, among others.
Special Note: May be repeated twice with a change of subtitle. Not available for credit to students who have completed ANTH A680 with the same subtitle.
May Be Stacked With: ANTH A680
Prerequisites: ANTH A205 with a minimum grade of C or ANTH A211 with a minimum grade of C.

ANTH A487 Field Methods in Cultural Anthropology **1-8 Credits**
Applies cultural anthropological research techniques by completing field-based research as a class project. Projects vary each semester, but may include archival/historical research and contemporary ethnographic projects. Methods may include qualitative and quantitative data collection with an emphasis on ethnographic research techniques.
Special Note: May be repeated for a maximum of 8 credits.
Registration Restrictions: Instructor approval
May Be Stacked With: ANTH A687
Prerequisites: ANTH A202 with a minimum grade of C or ANTH A210 with a minimum grade of C.

ANTH A490 Selected Topics in Anthropology **1-3 Credits**
Examines special topics in anthropology.
Special Note: May be repeated for a maximum of six credits with change of subtitle.
Registration Restrictions: Junior or senior standing
May Be Stacked With: ANTH A690
Prerequisites: ANTH A101 with a minimum grade of C or ANTH A111 with a minimum grade of C or ANTH A200 with a minimum grade of C or ANTH A202 with a minimum grade of C or ANTH A205 with a minimum grade of C or ANTH A210 with a minimum grade of C or ANTH A211 with a minimum grade of C or AKNS A201 with a minimum grade of C or GEOG A101 with a minimum grade of C or INTL A101 with a minimum grade of C or HS A220 with a minimum grade of C or JUST A330 with a minimum grade of C or LSSS A111 with a minimum grade of C or SOC A101 with a minimum grade of C or SOC A202 with a minimum grade of C or WSGS A200 with a minimum grade of C.

ANTH A490A Health, Ritual and Science **3 Credits**
Examines various relationships between human culture, belief and experience to health, disease and wellness. Topical emphasis will vary by semester.
Special Note: May be repeated once with a change of subtitle. Not available for credit to students who have completed ANTH A690A with the same subtitle.
May Be Stacked With: ANTH A690A
Prerequisites: ANTH A101 with a minimum grade of C or ANTH A111 with a minimum grade of C or ANTH A200 with a minimum grade of C or ANTH A202 with a minimum grade of C or GEOG A101 with a minimum grade of C or INTL A101 with a minimum grade of C or HS A220 with a minimum grade of C or JUST A330 with a minimum grade of C or LSSS A111 with a minimum grade of C or SOC A101 with a minimum grade of C or SOC A202 with a minimum grade of C or WSGS A200 with a minimum grade of C.

ANTH A490B Historical Engagements **3 Credits**
Examines the pathways connecting history and anthropology, as seen through material culture, oral traditions, historical documents and shifting disciplinary perspectives.
Special Note: May be repeated once with a change of subtitle. Not available for credit to students who have completed ANTH A690B with the same subtitle.
May Be Stacked With: ANTH A690B
Prerequisites: AKNS A201 with a minimum grade of C or ANTH A200 with a minimum grade of C or ANTH A202 with a minimum grade of C or HIST A377 with a minimum grade of C.

ANTH A490C Belief and Identity **3 Credits**
Cross-cultural perspectives on identity related to ethnicity, language, gender, religion and other social factors. Emphasis on topics will vary by semester.
Special Note: May be repeated once with a change of subtitle. Not available for credit for students who have completed ANTH A690C with the same subtitle.
May Be Stacked With: ANTH A690C
Prerequisites: AKNS A201 with a minimum grade of C or ANTH A101 with a minimum grade of C or ANTH A202 with a minimum grade of C or SOC A101 with a minimum grade of C or SOC A202 with a minimum grade of C or WSGS A200 with a minimum grade of C.

ANTH A490D Topics in the Contemporary North **3 Credits**
Holistically examines contemporary Alaska topics, especially as they pertain to Indigenous peoples and communities and the broader Circumpolar North. Identifies ways in which anthropologists address these issues. Topical emphasis will vary by semester.
Special Note: May be repeated once with a change of subtitle. Not available for credit to students who have completed ANTH A690D with the same subtitle.
May Be Stacked With: ANTH A690D
Prerequisites: ANTH A202 with a minimum grade of C or ANTH A205 with a minimum grade of C or ANTH A210 with a minimum grade of C or ANTH A211 with a minimum grade of C.
Attributes: UAA Alaska Native-Themed GER.

ANTH A490E Culture, Environment, Place **3 Credits**
Examines relationships between human culture, space and place with attention to the constructions, experiences and perceptions of the physical environment.
Special Note: May be repeated once with a change of subtitle. Not available for credit to students who have completed ANTH A690E with the same subtitle.
May Be Stacked With: ANTH A690E
Prerequisites: ANTH A101 with a minimum grade of C or ANTH A111 with a minimum grade of C or ANTH A200 with a minimum grade of C or ANTH A202 with a minimum grade of C or ENVI A212 with a minimum grade of C or GEOG A101 with a minimum grade of C or INTL A101 with a minimum grade of C.

ANTH A495 Practicum in Anthropology **1-3 Credits**
Applies practical anthropological skills learned under the supervision of a professional anthropologist.
Special Note: May be repeated once.
Registration Restrictions: 15 credit hours in Anthropology, instructor approval and agency mentor approval

ANTH A499 Senior Thesis in Anthropology **3 Credits**
Independent library, laboratory, or field research in anthropology resulting in a substantial, thesis-quality paper.
Special Note: May be repeated once for credit as a part of a two-semester sequence, with permission of thesis advisor. Must satisfy all requirements for honors in Anthropology.
Registration Restrictions: Senior standing, admission to the Bachelor of Arts in Anthropology or the Bachelor of Science in Anthropology, and instructor approval

ANTH A610 Anthropological Theory **3 Credits**
Traces the development of the science of anthropology. Presents key leaders and theoretical paradigms, concluding with contemporary practice.
Special Note: Graduate students will be assigned more in-depth projects, additional class readings, and mentoring positions for undergraduates.
Registration Restrictions: Graduate standing and admission to the Master of Arts in Anthropology, Bachelor of Arts in Anthropology, or Bachelor of Science in Anthropology
May Be Stacked With: ANTH A410

ANTH A611 Archaeological Theory **3 Credits**
Provides a survey of theoretical approaches and practice in contemporary archaeology. Includes class discussions based on readings, and student presentations.
Special Note: Graduate students will be assigned more in-depth projects, additional class readings, and mentoring positions for undergraduates.
Registration Restrictions: Graduate standing and admission to the Master of Arts in Anthropology, Bachelor of Arts in Anthropology, or Bachelor of Science in Anthropology
May Be Stacked With: ANTH A411

ANTH A615 Advanced Applied Anthropology **3 Credits**
Explores in depth the history, theory and methods of applied anthropology in the United States with some emphasis on applying anthropology in Alaska.
Special Note: Graduate students will be assigned more in-depth research, additional class readings and mentoring positions for undergraduates.
Registration Restrictions: Graduate standing
May Be Stacked With: ANTH A415

ANTH A620 Research Design **1 Credit**
Applies method and theory of research design to students' capstone research (thesis or applied project). Covers developing a research question, conducting a literature review, and writing a research prospectus.
Corequisites: ANTH A698.

ANTH A630 Advanced Social Science Research Methods **3 Credits**
Introduces in depth the modes of scientific data gathering, analysis and interpretation in the social sciences. Includes the logic of scientific inquiry, research design, data collection and analysis, reporting results, community/partner collaboration, ethics in social science research, and grant proposal preparation.
Special Note: Graduate students will be assigned more in-depth research, additional class readings and mentoring positions for undergraduates.
Registration Restrictions: Graduate standing
May Be Stacked With: ANTH A430 and SOC A430

ANTH A631 Advanced Field Methods in Archaeology and Bioanthropology **1-8 Credits**
Engages students in techniques of archaeological and bioarchaeological survey, mapping and excavation, including archaeological and bioarchaeological data recovery, recording techniques, initial cataloging and laboratory processing. Project setting may include historic sites, building documentation, archival research, bioarchaeological or forensics themed field schools, and pre-contact Indigenous sites within or outside of Alaska.
Special Note: May be repeated for a maximum of 16 credits. Graduate students will supervise the work of less experienced undergraduates under the overall supervision of the project director. They will be responsible for the quality of the excavation and recording of their undergraduate crew. They will be critically evaluated as potential professionals.
Registration Restrictions: Graduate standing and instructor approval
May Be Stacked With: ANTH A431

ANTH A652 Advanced Studies in Culture and Human Biodiversity **3 Credits**
Applies modern biocultural theory - including genetics, epigenetics, growth and development, and evolutionary biology - to highlight current understandings of human phenotypic, gender and sexual variation. Explores the historical role that biological anthropology played in the construction of race and gender.
Special Note: Graduate students will be assigned more in-depth research, additional class readings and mentoring positions for undergraduates.
Registration Restrictions: Graduate standing
May Be Stacked With: ANTH A452

ANTH A654 Advanced Studies in Culture and Ecology **3 Credits**
Explores in depth cultural and ecological systems, examining sociopolitical dimensions of environmental change and ecological knowledge.
Special Note: Graduate students will be assigned more in-depth research, additional class readings and mentoring positions for undergraduates.
Registration Restrictions: Graduate standing
May Be Stacked With: ANTH A454

ANTH A655 Advanced Studies in Culture and Health **3 Credits**
Surveys and evaluates the relationship of human culture to health and disease. Includes ancient disease and impact on human evolution, interrelationship between biology and culture, alternative health systems, and applicability to contemporary problems.
Special Note: Graduate students will be assigned more in-depth research, additional class readings and mentoring positions for undergraduates.
Registration Restrictions: Graduate standing
May Be Stacked With: ANTH A455

ANTH A658 Advanced Applied Ethics in Anthropology **3 Credits**
Examines critically the ethical issues that confront anthropologists and archaeologists, and the responsibilities they have to the public, the discipline, their colleagues, and members of the communities with whom they are working. Course topic will vary with focus on a different subfield of anthropology.
Special Note: May be repeated once with a change of subtitle. Graduate students will be assigned more in-depth research, additional class readings and mentoring positions for undergraduates.
Registration Restrictions: Graduate standing
May Be Stacked With: ANTH A458

ANTH A664 Advanced Studies in Culture and Globalization **3 Credits**
Explores critically the relationship between culture and globalization. Examines global capitalism and ethnographic experiences in the context of transnational migration and diasporas, and the influence of new information technologies and media on cultural values, beliefs and practices.
Special Note: Graduate students will be assigned more in-depth research, additional class readings and mentoring positions for undergraduates.
Registration Restrictions: Graduate standing
May Be Stacked With: ANTH A464

ANTH A677 Cultural Resource Management **3 Credits**
Provides an integrated anthropological perspective on historic preservation and the management of cultural resources in the United States. Includes the history of resource protection legislation, the design and implementation of cultural resource management projects, and applications of relevant cultural resource laws, including ethical issues.
Special Note: Graduate students will be assigned more in-depth projects, additional class readings, and mentoring positions for undergraduates.
Registration Restrictions: Graduate standing
May Be Stacked With: ANTH A477

ANTH A680 Advanced Analytical Techniques in Archaeology and Bioanthropology **4 Credits**
Critically examines data quality, sampling, quantification and interpretation of material remains with an emphasis on laboratory methods. Topics vary by semester and may include human osteology, zooarchaeology, lithics, ceramics and archaeobotany, among others.
Special Note: May be repeated two times with a change of subtitle. Graduate students will be assigned more in-depth research, additional class readings and mentoring positions for undergraduates.
Registration Restrictions: Graduate standing
May Be Stacked With: ANTH A480

ANTH A687 Advanced Field Methods in Cultural Anthropology **1-8 Credits**
Applies cultural anthropological research techniques by completing field-based research as a class project. Projects vary each semester but may include archival/historical research and contemporary ethnographic projects. Methods may include qualitative and quantitative data collection with an emphasis on ethnographic research techniques.
Special Note: May be repeated for a maximum of 8 credits. Graduate students will supervise undergraduate tasks under supervision of instructor.
Registration Restrictions: Graduate standing and instructor approval
May Be Stacked With: ANTH A487

ANTH A690 Selected Topics in Anthropology **1-3 Credits**
Examines special topics in anthropology at the graduate level.
Special Note: May be repeated for a maximum of 6 credits with a change of subtitle.
Registration Restrictions: Graduate standing
May Be Stacked With: ANTH A490

ANTH A690A Advanced Studies in Health, Ritual and Science **3 Credits**
Examines and evaluates various relationships between human culture, belief and experience to health, disease and wellness. Topical emphasis will vary by semester.
Special Note: May be repeated once with a change of subtitle. Graduate students will be assigned more in-depth research, additional class readings and mentoring positions for undergraduates.
Registration Restrictions: Graduate standing
May Be Stacked With: ANTH A490A

ANTH A690B Advanced Studies in Historical Engagements **3 Credits**
Examines and evaluates the pathways connecting history and anthropology, as seen through material culture, oral traditions, historical documents and shifting disciplinary perspectives.
Special Note: May be repeated once with a change of subtitle. Graduate students will be assigned more in-depth research, additional class readings and mentoring positions for undergraduates.
Registration Restrictions: Graduate standing
May Be Stacked With: ANTH A490B

ANTH A690C Advanced Studies in Belief and Identity **3 Credits**
Examines and evaluates cross-cultural perspectives on identity related to ethnicity, language, gender, religion and other social factors. Topical emphasis will vary by semester.
Special Note: May be repeated once with a change of subtitle. Graduate students will be assigned more in-depth research, additional class readings and mentoring positions for undergraduates.
Registration Restrictions: Graduate standing
May Be Stacked With: ANTH A490C

ANTH A690D Advanced Studies in the Contemporary North **3 Credits**
Examines and evaluates contemporary Alaska topics, especially as they pertain to Indigenous peoples and communities and the broader Circumpolar North. Identifies ways in which anthropologists and archaeologists address these issues. Topical emphasis will vary by semester.
Special Note: May be repeated once with a change of subtitle. Graduate students will be assigned more in-depth research, additional class readings and mentoring positions for undergraduates.
Registration Restrictions: Graduate standing
May Be Stacked With: ANTH A490D

ANTH A690E Advanced Studies in Culture, Environment, Place **3 Credits**
Examines and evaluates relationships among human culture, space and place with attention to the constructions and perceptions of the physical environment.
Special Note: May be repeated once with a change of subtitle. Graduate students will be assigned more in-depth research, additional class readings and mentoring positions for undergraduates.
Registration Restrictions: Graduate standing
May Be Stacked With: ANTH A490E

ANTH A695 Anthropology Practicum **1-3 Credits**
Engages in an anthropology practicum in the public or private sector. Emphasizes the application of anthropological skills under the supervision of a professional anthropologist.
Special Note: Arranged practicum between graduate advisor and an outside mentor.
Registration Restrictions: Graduate standing and admission to the Master of Arts in Anthropology, Bachelor of Arts in Anthropology, or Bachelor of Science in Anthropology

ANTH A698 Individual Research **1-3 Credits**
Engages student in supervised field, laboratory and/or library research that precedes research capstone activities (thesis research or applied project).
Special Note: Students may enroll for variable credit, but at least two credits are required for graduation. May be repeated for a maximum of 3 credits.

ANTH A699P Applied Capstone Project **1-6 Credits**
Engages student in applied research activities conducted under the supervision of a graduate committee for a research capstone applied project.
Special Note: Students may enroll for variable credit, but at least three credits are required for graduation. Offered during all semesters. May be repeated for a maximum of 6 credits.
Registration Restrictions: Graduate standing and admission to the Master of Arts in Anthropology, Bachelor of Arts in Anthropology, or Bachelor of Science in Anthropology and faculty advisor approval

ANTH A699T Thesis Research **1-6 Credits**
Engages student in independent research conducted under the supervision of a graduate committee for a research-based thesis.
Special Note: Students may enroll for variable credit, but at least three credits are required for graduation. Offered during all semesters. May be repeated for a maximum of 6 credits.
Registration Restrictions: Graduate standing and admission to the Master of Arts in Anthropology, Bachelor of Arts in Anthropology, or Bachelor of Science in Anthropology and faculty advisor approval

Architectural & Engineering Technology (AET)

Courses

AET A101 Fundamentals of Construction Documents **3 Credits**
Introduces the use, interpretation and production of construction documents. Introduces basic computer-aided drafting and design (CADD) skills used to produce and lay out civil, architectural, structural, mechanical and electrical drawings used in the construction industry. Develops skill in reading construction documents and retrieving information from them.
Registration Restrictions: Proof of eligibility for placement into WRTG A111. Appropriate SAT, ACT or UAA-approved math placement test scores may be used in lieu of MATH A105.
Prerequisites: MATH A105 with a minimum grade of C or concurrent enrollment or MATH A121 with a minimum grade of C or concurrent enrollment or MATH A151 with a minimum grade of C or concurrent enrollment or MATH A152 with a minimum grade of C or concurrent enrollment or MATH A155 with a minimum grade of C or concurrent enrollment or MATH A211 with a minimum grade of C or concurrent enrollment or MATH A212 with a minimum grade of C or concurrent enrollment or MATH A221 with a minimum grade of C or concurrent enrollment or MATH A251 with a minimum grade of C or concurrent enrollment or MATH A251F with a minimum grade of C or concurrent enrollment or MATH A252 with a minimum grade of C or concurrent enrollment or MATH A252F with a minimum grade of C or concurrent enrollment or MATH A253 with a minimum grade of C or concurrent enrollment.

AET A102 Methods and Materials of Building Construction **3 Credits**
Introduces basic knowledge of building materials, systems and assemblies. Includes site considerations, structural systems, construction document interpretation and methods used in the construction process.
Registration Restrictions: Proof of eligibility for placement into WRTG A111 and MATH A105

AET A123 Codes and Standards **3 Credits**
Provides an introduction and overview of the fundamental provisions of the building codes used for plan review, life-safety evaluation of the buildings, and community development.
Prerequisites: AET A101 with a minimum grade of C and AET A102 with a minimum grade of C.

AET A181 Fundamentals of Building Information Modeling (BIM) **3 Credits**
Introduces the use of Building Information Modeling (BIM) software in the creation of 3D models and their associated construction documents. Includes the modeling of floor, wall and roof systems, as well as associated topographic features. Includes collaborative worksharing environments, information retrieval and collation, annotation, and presentation of BIM construction documents.
Prerequisites: AET A101 with a minimum grade of C and AET A102 with a minimum grade of C.

AET A213 Fundamentals of Civil Construction **4 Credits**
Outlines elements of civil construction projects, including soils and soil mechanics, foundations, roads, hydrology, and utilities using local, state and federal regulations. Introduces elements of construction surveying and develops skill in the modeling and mapping tools used on civil construction projects.
Prerequisites: AET A101 with a minimum grade of C and AET A102 with a minimum grade of C and (MATH A105 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A211 with a minimum grade of C or MATH A212 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C).

AET A242 Mechanical, Electrical and Plumbing Systems **4 Credits**
Introduces basic mechanical and electrical systems required in all buildings for the safety, health, comfort and convenience of occupants. Emphasizes design criteria; code requirements; interpretation of mechanical, electrical and plumbing construction documents; and building energy usage. Includes drawing conventions, symbols and terminology used in mechanical and electrical construction documents.
Prerequisites: AET A101 with a minimum grade of C and AET A102 with a minimum grade of C and (MATH A105 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A211 with a minimum grade of C or MATH A212 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C).

AET A285 Design Studio 1 **5 Credits**
Introduces design principles focusing on conceptual design, massing, composition, organization, scale, proportion, rhythm, articulation and presentation. Develops skill in the visualization of design concepts, the use of modeling as a medium of investigation, and introduces techniques used in the presentation of design solutions.
Prerequisites: AET A101 with a minimum grade of C and AET A102 with a minimum grade of C and AET A181 with a minimum grade of C and ART A105 with a minimum grade of C and ART A160 with a minimum grade of C and (ART A261 with a minimum grade of C or ART A262 with a minimum grade of C).

AET A286 Design Studio 2 **5 Credits**
Investigates the role of context in the design process. Contextual issues such as climate, geography, society, economics, history and materiality will be used to explore how design responds to constraints and opportunities presented by the context in which a project is placed.
Prerequisites: AET A285 with a minimum grade of C.

AET A332 Structural Technology **3 Credits**
Examines the physical principles that underlie the behavior of structures and materials. Investigates the structural properties and design of wood, steel and reinforced concrete structural members, including connections. Includes the use and interpretation of construction documents.
Prerequisites: CM A232 with a minimum grade of C.

AET A411 Northern Design **3 Credits**
Introduction to design and maintenance of facilities in northern climates to construct sustainable, energy-efficient and durable buildings and infrastructure suitable for the unique needs of northern inhabitants.
Registration Restrictions: Senior standing or graduate standing in an accredited program in architecture or engineering, or instructor approval

Arctic Engineering (AE)

Courses

AE A682 Ice Engineering **3 Credits**
Introduces factors governing design of engineering works contending with the presence of ice. Includes fundamental ice properties, ice processes, ice navigation and control of ice in channels, structural and non-structural ice control measures, ice jams, bearing capacity of floating ice sheets, and ice forces on riverine and ocean structures.
Registration Restrictions: Graduate standing with a baccalaureate degree in engineering or junior or senior standing in an accredited undergraduate program in engineering having completed a mechanics of materials course with a minimum grade of C

AE A683 Arctic Hydrology and Hydraulic Engineering **3 Credits**
Introduces aspects of hydrology and hydraulics unique to engineering problems of the Arctic and near Arctic with emphasis on Alaska conditions including information from Canada and other circumpolar countries.
Registration Restrictions: Graduate standing with a baccalaureate degree in engineering or physical science, or junior or senior standing in an accredited undergraduate program in engineering having completed a water resources course with a minimum grade of C

AE A684 Arctic Utility Distribution **3 Credits**
Introduces physical principles and current practices associated with the planning and design of safe, efficient and affordable water supply, fire protection, wastewater collection and disposal, and solid waste disposal works in cold regions with a view toward conditions in rural arctic Alaska.
Registration Restrictions: Graduate standing with a baccalaureate degree in engineering or physical science, or junior or senior standing in an accredited undergraduate program in engineering having completed a water resources course with a minimum grade of C

AE A685 Arctic Applications of Heat and Mass Transfer **3 Credits**
Introduces principles of heat and mass transfer with special emphasis on application to problems encountered in the Arctic such as ice and frost formation, permafrost, condensation and heat loss in structures.
Registration Restrictions: Graduate standing with a baccalaureate degree in engineering or upper class standing in an accredited undergraduate program in engineering having completed a thermodynamics course with a minimum grade of C

Art (ART)

Courses

ART A100 Two-Dimensional Activities (Topics in Drawing, Design, or Painting) **1-3 Credits**
Art studio topics in drawing, painting, or design may be offered to introduce possible areas for future concentrated study. Recommended for students seeking initial exposure to studio arts.
Special Note: Does not satisfy BA or BFA degree requirements. May be repeated 3 times for credit in different topic areas.

ART A101 Three Dimensional Activities (3-D Materials and Techniques) **1-3 Credits**
Art studio topics in sculpture, ceramics, or metalsmithing may be offered to introduce possible areas for future concentrated study. Recommended for students seeking initial exposure to studio arts.
Special Note: Does not satisfy BA or BFA degree requirements. May be repeated 3 times for credit in different topic areas.

ART A105 Beginning Drawing **3 Credits**
Introduces elements of drawing based on development of skill using wet and dry media such as pencil, charcoal, conte, ink, and brush. Focuses on composition of objects, still lifes, perspective effects, and the human figure.

ART A111 Two-Dimensional Design **3 Credits**
Examines the organization, structure, and composition of form through the use of the basic design elements and principles. Emphasizes the development of design as related to two-dimensional art.

ART A112 Color Design **3 Credits**
Introduces the study of fundamentals of color and two-dimensional visual perception. Projects will emphasize evaluation and mixing of color.

ART A113 Three-Dimensional Design **3 Credits**
Explores three-dimensional design while focusing on terminology, investigation of materials, and appropriate use of hand and power tools. Develops creative problem-solving skills and methods of self-evaluation.

ART A160 Art Appreciation **3 Credits**
Develops an appreciation of all the visual arts. Emphasis is on the theories, practice, materials and techniques of the visual arts.
Attributes: UAA Fine Arts GER, UAA Intercultural Fluency GER.

ART A180A Beginning Stained Glass **3 Credits**
Overview of history and concepts of stained glass and the application of techniques and design principles of stained glass. Development of flat and/or 3-D copper foil stained glass pieces of art.
Special Note: Does not apply to BA/BFA Art degrees.

ART A201 Beginning Handbuilt Ceramics **3 Credits**
Introduces ceramic materials and processes with an emphasis on handbuilt forming methods. Investigates clays, clay bodies, slips, glazes, and firing processes in the earthenware temperature range. Explores ceramic history, idea development and creative problem solving.

ART A202 Beginning Wheelthrown Ceramics **3 Credits**
Introduces ceramic materials and processes with an emphasis on wheelthrowing methods to create functional and sculptural vessels. Investigates clays, clay bodies, slips, glazes, and firing process. Integrates ceramic history, idea development and creative problem solving with the acquisition of technical skills.

ART A203 Introduction to Art Education **3 Credits**
Introduces the theories, issues, and practices of general art education and museum education in historical and contemporary contexts. Includes rationales for teaching and learning art, theories of children's developmental levels in art, art and technology, and teaching practices through text and journal readings.
Special Note: Required course for BA and BFA in Art degrees
Prerequisites: WRTG A111 with a minimum grade of C or WRTG A1W with a minimum grade of C.

ART A205 Intermediate Drawing **3 Credits**
Expands visual awareness, technical ability and creative/conceptual drawing practices. Investigates complex technical, intuitive, and creative approaches to drawing.
May Be Stacked With: ART A305
Prerequisites: ART A105 with a minimum grade of C.

ART A211 Beginning Sculpture **3 Credits**
Explores fundamental elements of sculpture: form, mass, volume, scale, material and surface. Introduces visual and spatial aesthetics, and historical and contemporary sculpture. Initiates beginning level tools, techniques and materials available to the sculptor.
May Be Stacked With: ART A311, ART A411
Prerequisites: ART A105 with a minimum grade of C and ART A113 with a minimum grade of C.

ART A212 Beginning Watercolor **3 Credits**
Explores watercolor techniques. Emphasizes composition as affected by color, value, stylistic considerations and individual expression.

ART A213 Beginning Painting **3 Credits**
Introduces materials and traditional techniques as applied to painting as a fine art. Focuses on visual awareness, technical ability and conceptual input with investigation of intuitive and creative approaches. Draws subject matter from still life, landscape/nature, interior spaces and the human form.
May Be Stacked With: ART A313

ART A215 Beginning Printmaking **3 Credits**
Introduces basic skills and concepts of the printmaking process. Focuses on creativity and craftsmanship including traditional and contemporary printmaking methods and skills.
May Be Stacked With: ART A315 and ART A415
Prerequisites: ART A105 with a minimum grade of C and ART A111 with a minimum grade of C.

ART A220 Digital Imaging for Photography **3 Credits**
Post-processing and editing in the digital darkroom for artistic expression and commercial creation of digital photographs.
Special Note: May be taken concurrently with ART A225.
Registration Restrictions: Demonstrated computer competency or ART A103 selected topic: Creative Digital Darkroom.

ART A224 Beginning Photography **3 Credits**
Introduces basic digital photography principles and composition. Explores camera functions for artistic expression in the creation of photographic images with equipment such as digital single lens reflex cameras. Investigates a basic software workflow to produce creative images.

ART A225 Beginning Photography - Digital **3 Credits**
Basic principles and essential expertise for artistic and commercial expression in the creation of black and white photographic images with digital single lens reflex cameras.
Prerequisites: ART A220 with a minimum grade of D or concurrent enrollment.

ART A252 Beginning Graphic Design **3 Credits**
Explores the development of ideas and creative problem solving skills for the creation of communication tools. Introduces brand design based on the identification of the client's core values.
Special Note: May be repeated once for credit with change of emphasis.
Prerequisites: ART A111 with a minimum grade of C.

ART A257 Computer Art **3 Credits**
Introduces digital tools and technology, focusing on raster and vector graphics for the creation of imagery in the Fine and Applied Arts. Encourages creativity and exploration in the application of software programs for ideation, iteration and organization to create images for print and web applications.
Special Note: May be repeated once for credit with substantive change in media or emphasis.
Prerequisites: ART A111 with a minimum grade of C.

ART A261 History of Western Art I **3 Credits**
Examines the origins and development of painting, sculpture and architecture. Covers the history of art from prehistory through the medieval period of the Western World.
Prerequisites: WRTG A111 with a minimum grade of C or concurrent enrollment or (Accuplacer-Reading Comp with a score of 080 and Accuplacer-Sentence Skills with a score of 090) or Accuplacer-Sum AASS + AARC with a score of 170 or (Accuplacer NG Writing with a score of 265 and Accuplacer NG Reading with a score of 265) or Accuplacer NG AAWR + AARE with a score of 530 or Enhanced ACT English with a score of 22 or EVIDENCE-BASED READ/WRIT SCORE with a score of 560.
Attributes: UAA Fine Arts GER, UAA Intercultural Fluency GER.

ART A262 History of Western Art II **3 Credits**
Examines the origins and development of painting, sculpture and architecture. Covers the history of art from the Renaissance through the Postmodern period with an emphasis on the art of the Western World.
Prerequisites: WRTG A111 with a minimum grade of C or concurrent enrollment or (Accuplacer-Reading Comp with a score of 080 and Accuplacer-Sentence Skills with a score of 090) or Accuplacer-Sum AASS + AARC with a score of 170 or (Accuplacer NG Writing with a score of 265 and Accuplacer NG Reading with a score of 265) or Accuplacer NG AAWR + AARE with a score of 530 or Enhanced ACT English with a score of 22 or EVIDENCE-BASED READ/WRIT SCORE with a score of 560.
Attributes: UAA Fine Arts GER, UAA Intercultural Fluency GER.

ART A270 Beginning Alaska Native Art **3 Credits**
Exposes and applies indigenous production, rhythms, and attitudes toward making carved art objects. Investigates Alaska Native art history, oral experience and lifeways. Emphasizes the development of a personal aesthetic and creative design.
May Be Stacked With: ART A370 and ART A470
Attributes: UAA Alaska Native-Themed GER.

ART A301 Intermediate Handbuilt Ceramics **3 Credits**
Intensified development of handbuilt ceramic sculpture with emphasis on form, content and creative problem solving. Focuses on ceramic materials and their properties as a vehicle for personal expression.
Special Note: May be repeated once for credit with substantive change in media or emphasis.
Registration Restrictions: Instructor approval
May Be Stacked With: ART A401
Prerequisites: ART A201 with a minimum grade of C.

ART A302 Intermediate Wheelthrown Ceramics **3 Credits**
Intensified development of wheelthrowing techniques with emphasis on aesthetics, art history, content and creative problem solving. Focuses on the ceramic process as a vehicle for personal creative expression.
Special Note: May be repeated once for credit with substantive change in media or emphasis.
Registration Restrictions: Instructor approval
May Be Stacked With: ART A402
Prerequisites: ART A202 with a minimum grade of C.

ART A305 Advanced Drawing **3 Credits**
Examines advanced contemporary conceptual approaches, techniques, and materials in drawing.
Special Note: May be repeated once for credit with substantive change in media or emphasis.
Registration Restrictions: Prerequisite(s) or instructor approval
May Be Stacked With: ART A205
Prerequisites: ART A205 with a minimum grade of C.

ART A307 Life Drawing and Composition I **3 Credits**
Explores possibilities in design, composition and media through drawing from live models. Emphasizes form and space using wet and dry media including charcoal, graphite, pen and brush.
Special Note: May be repeated once for credit with substantive change in media or emphasis.
Registration Restrictions: Prerequisite(s) or instructor approval
May Be Stacked With: ART A407
Prerequisites: ART A205 with a minimum grade of C.

ART A311 Intermediate Sculpture **3 Credits**
Explores sculptural concepts and processes, emphasizing aesthetics and history of modern sculpture. Focuses on development of construction skills with access to advanced machines and tools and their applications.
Special Note: May be repeated once for credit with substantive change in media or emphasis.
Registration Restrictions: Instructor approval
May Be Stacked With: ART A211, ART A411
Prerequisites: ART A211 with a minimum grade of C.

ART A312 Intermediate Watercolor **3 Credits**
Explores the development of expressive skills including watercolor techniques and refines material uses with the emphasis on individual approaches to traditional and non-traditional pictorial and conceptual problems.
Special Note: May be repeated once for credit with substantive change in media or emphasis.
May Be Stacked With: ART A412
Prerequisites: ART A212 with a minimum grade of C.

ART A313 Intermediate Painting **3 Credits**
Intensifies development of expressive skills in painting. Reviews beginning painting techniques and refines material uses with emphasis on individual approaches to pictorial and conceptual problems.
Special Note: May be repeated once for credit with substantive change in media or emphasis.
Registration Restrictions: Instructor approval
May Be Stacked With: ART A413 and ART A213
Prerequisites: ART A213 with a minimum grade of C.

ART A315 Intermediate Printmaking **3 Credits**
Explores the major processes (lithography, serigraphy, intaglio and relief processes) linked to contemporary and digital developments.
Special Note: May be repeated 3 times for credit with change of printmaking process.
May Be Stacked With: ART A215 and ART A415
Prerequisites: ART A215 with a minimum grade of C.

ART A324 Intermediate Photography **3 Credits**
Investigates intermediate level techniques and conceptual approaches to digital photography. Encourages creative exploration of diverse attitudes and approaches with lighting for artistic expression, shooting, software processing, and printing of digital images.
May Be Stacked With: ART A424
Prerequisites: ART A224 with a minimum grade of C.

ART A327 Digital Video Photography **3 Credits**
Investigates techniques and conceptual approaches to digital video art and storytelling. Encourages creative exploration of diverse attitudes and approaches with digital storytelling, photography, audio, cinematography, lighting and editing.
Special Note: May be repeated once for credit with substantive change in medium or emphasis.

ART A352 Intermediate Graphic Design **3 Credits**
Explores creative and collaborative approaches to solving communication design problems.
Special Note: May be repeated once for credit with a substantive change in media or emphasis.
Registration Restrictions: Instructor permission
May Be Stacked With: ART A452
Prerequisites: ART A252 with a minimum grade of C.

ART A353 Illustration I **3 Credits**
Introduces contemporary illustration styles and directions including illustrating for advertising, book covers, children's books, graphic novels, magazines or newspapers. Enable students to create images to communicate a story, message or idea, using a variety of media including drawing, painting, digital tools, photography, printmaking and 3-dimensional constructions.
Special Note: May be repeated once for credit with change in media or emphasis.
Registration Restrictions: Instructor permission
May Be Stacked With: ART A453
Prerequisites: ART A257 with a minimum grade of C.

ART A362 History of Modern Art **3 Credits**
Examines the historical development of art from the late 19th century to the 1950s. Covers a variety of visual art mediums in relation to the social, political, cultural and aesthetic contexts of this period.
Prerequisites: (ART A261 with a minimum grade of C or ART A262 with a minimum grade of C) and (WRTG A111 with a minimum grade of C or WRTG A1W with a minimum grade of C).

ART A363 History of Contemporary Art **3 Credits**
Analyzes the aesthetic and conceptual development of visual art from the mid-20th century to the present. Examines the relationship of art to the social, political and cultural contexts of this period.
Prerequisites: (ART A261 with a minimum grade of C or ART A262 with a minimum grade of C) and (WRTG A111 with a minimum grade of C or WRTG A1W with a minimum grade of C).

ART A364 Italian Renaissance Art **3 Credits**
Examines Italian Renaissance art from the Proto-Renaissance period through the High Renaissance and Mannerist periods.
Prerequisites: (ART A261 with a minimum grade of C or ART A262 with a minimum grade of C) and (WRTG A111 with a minimum grade of C or WRTG A1W with a minimum grade of C).

ART A367 History of Photography **3 Credits**
Investigates the history of photography: its origins, chronology, cultural context, and the significant contributions of individual photographers.
Prerequisites: (ART A261 with a minimum grade of C or ART A262 with a minimum grade of C) and (WRTG A111 with a minimum grade of C or WRTG A1W with a minimum grade of C).

ART A370 Intermediate Alaska Native Art **3 Credits**
Explores unique methods of indigenous production and the cultural heritage through visiting elders/artists workshops and presentations. Applies techniques, design principles, and materials of the visiting elders/artists to course projects as a point of departure to develop a personal aesthetic and creative approach to making carved objects.
May Be Stacked With: ART A270 and ART A470
Prerequisites: ART A270 with a minimum grade of C.
Attributes: UAA Alaska Native-Themed GER.

ART A390 Selected Topics in Studio Art **3 Credits**
Selected topics in studio art allowing for concentrated study in a specific area.
Special Note: May be repeated twice with a change of subtitle. Prerequisites may vary with the different studio topics.
Registration Restrictions: Instructor approval and 6 credits of upper division coursework in same studio discipline
May Be Stacked With: ART A490

ART A401 Advanced Handbuilt Ceramics **3 Credits**
Presents advanced processes and project development skills related to the creation of ceramic sculpture. Focuses on clay body and surface development, large scale construction, personal conceptual growth and professional practices.
Special Note: May be repeated once for credit with a substantive change in media or emphasis.
Registration Restrictions: Instructor approval
May Be Stacked With: ART A301
Prerequisites: ART A301 with a minimum grade of C.

ART A402 Advanced Wheelthrown Ceramics **3 Credits**
Presents advanced processes and project development skills related to the creation of functional and sculptural vessel forms. Focus is on the ceramic process in a variety of firing temperatures and the merging of wheel thrown and handbuilt techniques as a vehicle for personal creative expression.
Special Note: May be repeated once for credit with a substantive change in media or emphasis.
Registration Restrictions: Instructor approval
May Be Stacked With: ART A302
Prerequisites: ART A302 with a minimum grade of C.

ART A405 Experimental Drawing **3 Credits**
Integrates the development of ideas and personal iconography through experimentation with contemporary techniques and materials in drawing.
Special Note: May be repeated once for credit.
Registration Restrictions: Prerequisite(s) or instructor approval
Prerequisites: ART A205 with a minimum grade of C.

ART A407 Life Drawing and Composition II **3 Credits**
Explores advanced possibilities in design, composition and media through drawings from live models. Emphasizes form and space using wet and dry media: charcoal, graphite, pen, brush, etc. Emphasizes conceptual drawing concerns.
Special Note: May be repeated once for credit.
Registration Restrictions: Prerequisite(s) or instructor approval
May Be Stacked With: ART A307
Prerequisites: ART A307 with a minimum grade of C.

ART A411 Advanced Sculpture **3 Credits**
Explores advanced concepts and processes emphasizing aesthetics and history of contemporary sculpture. Continued development of construction skills with access to advanced and specialized machinery, tools and welding equipment.
Special Note: May be repeated once for credit with a substantive change in media or emphasis.
Registration Restrictions: Instructor approval
May Be Stacked With: ART A211, ART A311
Prerequisites: ART A311 with a minimum grade of C.

ART A412 Advanced Watercolor **3 Credits**
Investigates more advanced watercolor techniques and approaches regarding conceptual/pictorial constructions. Encourages experimentation, research and technical approaches.
Special Note: May be repeated once for credit with substantive change in media or emphasis.
May Be Stacked With: ART A312
Prerequisites: ART A312 with a minimum grade of C.

ART A413 Advanced Painting **3 Credits**
Develops advanced painting techniques. Focuses on complex concepts and pictorial constructions including research and experimentation in various media.
Special Note: May be repeated once for credit with a substantive change in media or emphasis.
Registration Restrictions: Instructor approval
May Be Stacked With: ART A313
Prerequisites: ART A313 with a minimum grade of C.

ART A415 Advanced Printmaking **3 Credits**
Continues the development of major printmaking processes including lithography, serigraphy, intaglio and relief. Explores connections between various printmaking disciplines and contemporary practices, especially digital development and production of one-of-a-kind projects. Development of individual creative concepts and experimentation in image making is expected. Interdisciplinary approaches encouraged.
Special Note: May be repeated three times for credit with change of printmaking process.
May Be Stacked With: ART A215 and ART A315
Prerequisites: ART A315 with a minimum grade of C.

ART A424 Advanced Photography **3 Credits**
Investigates advanced level techniques and conceptual approaches in digital photography. Encourages exploration of diverse approaches in photography for artistic expression and creation of a cohesive professional photographic portfolio.
Special Note: May be repeated once for credit with substantive change in medium or emphasis.
May Be Stacked With: ART A324
Prerequisites: ART A324 with a minimum grade of C.

ART A452 Advanced Graphic Design **3 Credits**
Encourages the utilization of tools and research necessary to solve more in-depth and challenging communication problems.
Special Note: May be repeated once for credit with substantive change in media or emphasis.
Registration Restrictions: Instructor permission
May Be Stacked With: ART A352
Prerequisites: ART A352 with a minimum grade of C.

ART A453 Illustration II **3 Credits**
Utilizes illustrative styles, techniques and directions for advertising, publication covers, children's books, graphic novels, magazines and newspapers in print or digital venues. Emphasizes development (or recognition) of a personal style and development of marketing strategies including methods of self-promotion.
Special Note: May be repeated once for credit with a change in media or emphasis.
Registration Restrictions: Instructor permission
May Be Stacked With: ART A353
Prerequisites: ART A353 with a minimum grade of C.

ART A470 Advanced Alaska Native Art **3 Credits**
Investigates at an advanced level the development of aesthetics involving indigenous and/or contemporary materials. Emphasizes research design and execution of works reflecting the Native personal experience. Elders/artists may vary from semester to semester.
Special Note: May be repeated up to three times.
May Be Stacked With: ART A270 and ART A370
Prerequisites: ART A370 with a minimum grade of C.
Attributes: UAA Alaska Native-Themed GER.

ART A490 Selected Topics in Studio Art **3 Credits**
Selected topics in studio art allowing for advanced concentrated study in a specific area.
Special Note: May be repeated twice with a change of subtitle. Prerequisites may vary with the different studio topics.
Registration Restrictions: Instructor approval and 6 credits of upper division coursework in same studio discipline
May Be Stacked With: ART A390

ART A491 Senior Seminar **3 Credits**
Integrates applied knowledge and professional technical practices of visual artists. Develops the necessary communication skills to be a practicing artist. Employs effective art historical, aesthetic and critical tools to resolve and assess creative problem-solving approaches.
Registration Restrictions: Senior standing, completion of GER Tier 1 (basic college-level skills) courses, and instructor approval
Prerequisites: ART A261 with a minimum grade of C and ART A262 with a minimum grade of C and PHIL A401 with a minimum grade of C.
Attributes: UAA Integrative Capstone GER.

ART A492 Art History Seminar **3 Credits**
Seminar in art history.
Special Note: May be repeated three times for credit in different topics for a maximum of 12 credits.
Registration Restrictions: Instructor permission
Prerequisites: ART A261 with a minimum grade of D or ART A262 with a minimum grade of D.

ART A495 Practicum **1-3 Credits**
Manage daily operations in a professional art studio. Conduct inventory, material stocking and small equipment repair.
Special Note: May be completed for a maximum of 6 credits.
Registration Restrictions: Instructor permission and a minimum of 3 credits of 400-level coursework in selected content area and approval of area coordinator

ART A498 Individual Research **1-3 Credits**
Focuses on professional development, conceptual growth and awareness, critical thinking, and advanced technical proficiency in any of the major disciplines.
Special Note: May be completed for a maximum of 6 credits.
Registration Restrictions: Instructor permission and minimum of 6 credits upper division studio coursework in selected studio area and approval of area coordinator

ART A499 Thesis **3 Credits**
Produce and exhibit a body of work based on an approved thesis proposal.
Special Note: Offered spring semester only.
Registration Restrictions: Senior standing, admission to the Bachelor of Fine Arts (BFA) in Art, and approval of BFA committee
Prerequisites: ART A491 with a minimum grade of B.

Astronomy (ASTR)

Courses

ASTR A103 Solar System Astronomy **3 Credits**
Introduction to solar system astronomy; emphasis on most recent results from solar system exploration missions. Topics include changes of the sky (seasons, motion of the sky, phases of the moon, planetary motion) and physical properties of the sun, planets, moons, comets, and solar system evolution.
Registration Restrictions: High school algebra or equivalent.
Corequisites: ASTR A103L.
Attributes: UAA Natural Sciences GER.

ASTR A103L Solar System Astronomy Laboratory **1 Credit**
Introductory astronomy laboratory with experiments in basic observational methods and data analysis applicable to the study of the solar system.
Registration Restrictions: High school algebra or equivalent
Corequisites: ASTR A103.
Attributes: UAA Natural Sci Lab Only GER.

ASTR A104 Stars, Galaxies and Cosmology **3 Credits**
Introduction to solar, stellar, galactic, extragalactic astronomy.
An emphasis is placed on the properties of stars, stellar evolution, formation and evolution of galaxies, exoplanets, and the formation and fate of the universe.
Registration Restrictions: High school algebra or equivalent
Corequisites: ASTR A104L.
Attributes: UAA Natural Sciences GER.

ASTR A104L Stars, Galaxies and Cosmology Laboratory **1 Credit**
Introductory astronomy laboratory with experiments in basic observational methods and data analysis applicable to the study of solar, stellar, galactic, and extragalactic astronomy.
Registration Restrictions: High school algebra or equivalent
Corequisites: ASTR A104.
Attributes: UAA Natural Sci Lab Only GER.

Automotive/Diesel Technology (ADT)

Courses

ADT A100 Pre-Commercial Driving License **2 Credits**
Prepares students to pass the State of Alaska Commercial Drivers License Permit. Includes basics on inspections, air brakes, and combination vehicles.
Special Note: A DOT Medical card is not required for a Commercial Learner's Permit, but it is required for a Commercial Driver's License.
Registration Restrictions: Must be 18 years of age to enroll in class.

ADT A101 Commercial Drivers Training **1 Credit**
Provides beginning Commercial Drivers License instruction for students intending to become commercial drivers.
Special Note: Must be 18 years old and obtain a Department of Transportation (DOT) medical certificate to meet the requirements for a Commercial Drivers License.
Registration Restrictions: Department approval with prior possession of the written Commercial Driver License permit
Prerequisites: ADT A100 with a minimum grade of P.

ADT A102 Introduction to Automotive Technology **3 Credits**
Provides career information about the automotive industry. Covers shop safety, hand tools, fasteners, fittings, and an introduction to the major automotive systems.

ADT A121 Basic Electrical Systems **3 Credits**
Covers basic automotive and heavy-duty equipment electrical theory, diagnosis, minor repair, and general service of alternators, starters, and batteries.
Special Note: Students are expected to provide the basic hand tools needed to participate in lab activities. See faculty advisor for tool list.
Prerequisites: ADT A102 with a minimum grade of C or concurrent enrollment.

ADT A122 Engine Theory and Diagnosis **3 Credits**
Introduces the fundamental aspects of engine theory, design, operation, general diagnosis and engine-related service. Includes an introduction of combustion process, engine mechanics and associated engine systems.
Prerequisites: ADT A102 with a minimum grade of C or concurrent enrollment.

ADT A131 Auto Electrical II **3 Credits**
Theory, diagnosis and repair of automotive and heavy-duty electrical systems, to include testing tools, schematics, and computer inputs and outputs.
Prerequisites: ADT A102 with a minimum grade of C or concurrent enrollment and ADT A121 with a minimum grade of C or concurrent enrollment.

ADT A140 Automotive Engine Repair **3 Credits**
Apply skills essential to diagnose, repair, overhaul, and recondition automotive internal combustion engines. Includes cylinder head, valve train, and engine block service, as well as starting and running the engine.
Special Note: A running engine is imperative in industry. Lab engines must run in order to receive a passing grade.
Prerequisites: ADT A102 with a minimum grade of C or concurrent enrollment.

ADT A150 Brake Systems **4 Credits**
Theory, diagnosis and repair of automotive braking systems, including antilock brake systems (ABS).
Prerequisites: ADT A102 with a minimum grade of C or concurrent enrollment and ADT A121 with a minimum grade of C or concurrent enrollment and ADT A131 with a minimum grade of C or concurrent enrollment.

ADT A152 Heavy-Duty Suspension and Steering **4 Credits**
Introduces theory, operation and maintenance of suspension and steering systems on medium- and heavy-duty trucks and equipment.
Special Note: Students are expected to provide the basic hand tools needed to participate in lab activities. See faculty advisor for tool list.
Prerequisites: ADT A102 with a minimum grade of C or concurrent enrollment.

ADT A153 Medium/Heavy-Duty Diesel Engines **4 Credits**
Introduces theory and application of design, operation, diagnosis, disassembly, repair, and service procedures for engines used in medium and heavy-duty trucks and equipment.
Special Note: Students are expected to provide the basic hand tools needed to participate in lab activities. See faculty advisor for tool list.
Prerequisites: ADT A102 with a minimum grade of C or concurrent enrollment.

ADT A155 Heavy-Duty Brake Systems **4 Credits**
Introduces theory, operation, diagnosis, repair and service procedure of brake systems on medium- and heavy-duty trucks and equipment.
Special Note: Students are expected to provide the basic hand tools needed to participate in lab activities. See faculty advisor for tool list.
Registration Restrictions: Completion of ADT A121 and ADT A131 with a minimum grade of C or concurrent enrollment is recommended.
Prerequisites: ADT A102 with a minimum grade of C or concurrent enrollment.

ADT A156 Heavy-Duty Maintenance and Inspection **3 Credits**
Introduces regulations and inspection/maintenance procedures on medium- and heavy-duty trucks and equipment.
Special Note: Students are expected to provide the basic hand tools needed to participate in lab activities. See faculty advisor for tool list.
Registration Restrictions: Must be eligible to enroll in WRTG A090 and MATH A055.
Prerequisites: ADT A102 with a minimum grade of C or concurrent enrollment.

ADT A160 Manual Drive Trains and Axles **4 Credits**
Introduces theory, diagnosis, and repair of manual drive train components and drive axles. Content includes clutches, manual transmissions and transaxles, 4-wheel drive components, and drive axles.
Prerequisites: ADT A102 with a minimum grade of D.

ADT A162 Suspension and Alignment **4 Credits**
Modern automotive suspension, alignment, and steering theory, inspection, service, and adjustments including four wheel alignment.
Prerequisites: ADT A121 with a minimum grade of D.

ADT A195 Automotive Practicum I **1-6 Credits**
Provides supervised workplace experience in selected industry settings. Integrates knowledge and practice of competencies gained in program coursework.
Special Note: May be repeated for a maximum of 18 credits.
Registration Restrictions: Recommendation by faculty advisor, at least 12 credits of advisor-approved ADT program technical courses and a valid Alaska driver's license.

ADT A202 Auto Fuel and Emissions Systems **4 Credits**
Presents design and function of emission control devices, laws and regulations concerning vehicle emissions, combustion chemistry, and volumetric efficiency. Emphasizes proper diagnostic procedures with engine systems, including interfacing with on-board computers, automotive computer networking, and exhaust gas analysis.
Prerequisites: ADT A102 with a minimum grade of C and ADT A131 with a minimum grade of C.

ADT A222 Automotive Engine Performance **4 Credits**
Introduces the relationship between fuel composition, engine design, computerized engine controls, engine control sensors and ignition control systems. Incorporates instructional areas in the Automotive Service Excellence (ASE) Education Foundation task list for the Automotive Engine Performance area.
Prerequisites: ADT A102 with a minimum grade of C and ADT A131 with a minimum grade of C.

ADT A225 Mobile Heating, Ventilation and Air Conditioning Systems **3 Credits**
Presents theory, operation, diagnosis and repair of heating, ventilation and air conditioning (HVAC) systems used in automotive and heavy-duty applications.
Prerequisites: ADT A131 with a minimum grade of C.

ADT A227 Auto Electrical III **3 Credits**
Studies the description, operation and diagnosis of automotive and heavy duty computerized systems. Covers the study of computer inputs, outputs, networks, and programming; including advanced lighting, sensors, instrument cluster gauges, accessories, safety systems, and security systems as well as several other computer control systems and networks.
Special Note: Digital Volt Ohm Meter (DVOM) and test light required.
Prerequisites: ADT A131 with a minimum grade of D.

ADT A230 Electric and Hybrid Vehicle I **3 Credits**
Provides an introduction to Electric and Hybrid vehicles. Discusses EV and hybrid history, high voltage batteries, parallel hybrid, series hybrid, series-parallel hybrid, and safety when working around high-voltage systems. Elaborates on maintenance procedures on hybrid and electric vehicles.
Prerequisites: ADT A227 with a minimum grade of C or concurrent enrollment.

ADT A240 Electric and Hybrid Vehicle II **3 Credits**
Introduces students to fundamentals and applied skills essential to diagnosing, maintaining, and repairing EV and hybrid vehicles. Topics include charging diagnostics for Plug-in Hybrid Electric (HEV) and Battery Electric Vehicles (BEV). Includes Electric Vehicle (EV) communication and control systems on BEVs and HEVs.
Prerequisites: ADT A230 with a minimum grade of C or concurrent enrollment.

ADT A260 Electronic and Automatic Transmissions **3 Credits**
Introduces automatic transmission construction and design. Covers hydraulic systems, electronic shift fundamentals, operation of planetary gear-sets, apply mechanism, inspection, servicing, diagnosis, and overhaul. Introduces transmission control module programming, and electronic fault diagnosis. Reinforces theory with practical, hands-on classroom and lab exercises.
Prerequisites: ADT A131 with a minimum grade of C.

ADT A267 Heavy-Duty Diesel Engine Performance **4 Credits**
Covers design, operation, diagnosis, repair and service procedures of engines, fuel systems and emissions systems on engines used in the medium- and heavy-duty diesel industry. Emphasizes engine performance and computer systems diagnosis.
Special Note: Students are expected to provide the basic hand tools needed to participate in lab activities. See faculty advisor for tool list.
Prerequisites: ADT A131 with a minimum grade of C and ADT A153 with a minimum grade of C.

ADT A268 Mobile Hydraulic Systems **4 Credits**
Includes diagnosis, repair and service of hydraulic systems and components used on medium- and heavy-duty equipment.
Special Note: Students are expected to provide the basic hand tools needed to participate in lab activities. See faculty advisor for tool list.
Registration Restrictions: Students are strongly encouraged to complete ADT A121 and ADT A131 prior to enrolling in this course.
Prerequisites: ADT A102 with a minimum grade of C.

ADT A269 Heavy-Duty Drive Trains **3 Credits**
Includes design, operation, diagnosis, repair and service procedures for transmissions and drive trains used in medium- and heavy-duty applications.
Special Note: Students are expected to provide the basic hand tools needed to participate in lab activities. See faculty advisor for tool list.
Registration Restrictions: Completion or concurrent enrollment in ADT A156 is strongly recommended.
Prerequisites: ADT A102 with a minimum grade of C or concurrent enrollment.

ADT A295 Automotive Practicum II **3 Credits**
Provides experience in selected industry settings for students nearing the completion of a program in the Automotive and Diesel Technology Department at UAA.
Special Note: Most practicum sites will require a valid Alaska driver's license and personally owned tools.
Registration Restrictions: A minimum of 24 ADT credits completed, a minimum grade of C or higher for all ADT courses, and advisor approval. Enrollment in this course is restricted to admitted majors in Automotive and Diesel Technology. Instructor approval is required.

Aviation Maintenance Technology (AMT)

Courses

AMT A101 General Airframe and Powerplant **1 Credit**
Presents fundamentals of electricity and electronics, aircraft drawings, weight and balance, fluid lines and fittings, aircraft materials, hardware, and processes, ground operations and servicing, cleaning and corrosion control, mathematics, regulations, maintenance forms, records, and publications, physics for aviation, inspection concepts and techniques, and human factors. Prepares students for the Federal Aviation Administration (FAA) Mechanics General Written Knowledge Exam.
Registration Restrictions: Completed Federal Aviation Administration (FAA) Form 8610-2, Airman Certificate and/or Rating Application signed in block V by FAA Airworthiness Inspector, or instructor approval

AMT A101L General Airframe and Powerplant Laboratory **1 Credit**
Practical application of the fundamentals of electricity and electronics, aircraft drawings, weight and balance, fluid lines and fittings, aircraft materials, hardware, and processes, ground operations and servicing, cleaning and corrosion control, mathematics, regulations, maintenance forms, records, and publications, physics for aviation, inspection concepts and techniques, and human factors. Prepares students for the Federal Aviation Administration (FAA) Mechanics General Oral and Practical Exam.
Registration Restrictions: Completed Federal Aviation Administration (FAA) Form 8610-2, Airman Certificate and/or Rating Application signed in block V by FAA Airworthiness Inspector, or instructor approval

AMT A170 Aircraft Ground Operations and Safety **1 Credit**
Examines safety in aviation maintenance including aircraft ground operation and fuel servicing. Presents policies and procedures of the Aviation Maintenance Technology (AMT) Program, UAA and the FAA.
Registration Restrictions: Admission to the Undergraduate Certificate in Aviation Maintenance Technology, Airframe, Undergraduate Certificate in Aviation Maintenance Technology, Powerplant, Associate of Applied Science in Aviation Maintenance Technology, or the Bachelor of Science in Aviation Technology

AMT A171 Basic Aerodynamics **2 Credits**
Introduces the theory of aerodynamics, and factors affecting flight of heavier than air, fixed and rotary wing aircraft. Emphasizes aircraft Weight and Balance, aircraft structures, aerodynamics, theory of flight, and aircraft rigging.
Registration Restrictions: Admission to the Undergraduate Certificate in Aviation Maintenance Technology, Airframe, Undergraduate Certificate in Aviation Maintenance Technology, Powerplant, Associate of Applied Science in Aviation Maintenance Technology, or the Bachelor of Science in Aviation Technology

AMT A172 Aircraft Publications, Regulations, and Records **2 Credits**
Examines the government's involvement in aviation maintenance and FAA regulations regarding aviation maintenance, and approved training programs. Emphasizes the use of maintenance publications, maintenance forms and records, and technicians' privileges and limitations.
Registration Restrictions: Admission to the Undergraduate Certificate in Aviation Maintenance Technology, Airframe, Undergraduate Certificate in Aviation Maintenance Technology, Powerplant, Associate of Applied Science in Aviation Maintenance Technology, or the Bachelor of Science in Aviation Technology

AMT A174 Fundamentals of Aircraft Electronics **2 Credits**
Examines the theory, derivation, and application of basic DC and AC electrical concepts, definitions, and laws. Introduces passive electrical components, electrical sources, AC waveforms, schematic symbols, and electrical wiring diagrams. Explains troubleshooting fundamentals, and circuit analysis of both passive and reactive components.
Registration Restrictions: Admission to the Undergraduate Certificate in Aviation Maintenance Technology, Airframe, Undergraduate Certificate in Aviation Maintenance Technology, Powerplant, Associate of Applied Science in Aviation Maintenance Technology, or the Bachelor of Science in Aviation Technology
Prerequisites: MATH A055 with a minimum grade of C or MATH A060 with a minimum grade of C or MATH A104 with a minimum grade of C or MATH A105 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A211 with a minimum grade of C or MATH A212 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C or ALEKS Overall Test 1 with a score of 030 or ALEKS Overall Test 2 with a score of 030 or ALEKS Overall Test 3 with a score of 030 or ALEKS Overall Test 4 with a score of 030 or ALEKS Overall Test 5 with a score of 030.
Corequisites: AMT A174L.

AMT A174L Fundamentals of Aircraft Electronics Lab **2 Credits**
Introduces the methods of safe and accurate measurement of DC and AC electrical quantities using basic electrical test equipment. Connecting, testing, and operating a variety of DC and AC circuit components, troubleshooting defective components, observing the characteristics of electrical components in test circuits, and wiring circuits from schematic diagrams.
Registration Restrictions: Admission to the Undergraduate Certificate in Aviation Maintenance Technology, Airframe, Undergraduate Certificate in Aviation Maintenance Technology, Powerplant, Associate of Applied Science in Aviation Maintenance Technology, or the Bachelor of Science in Aviation Technology
Prerequisites: AMT A170 with a minimum grade of D or concurrent enrollment and (MATH A055 with a minimum grade of C or MATH A060 with a minimum grade of C or MATH A104 with a minimum grade of C or MATH A105 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A211 with a minimum grade of C or MATH A212 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C or ALEKS Overall Test 1 with a score of 030 or ALEKS Overall Test 2 with a score of 030 or ALEKS Overall Test 3 with a score of 030 or ALEKS Overall Test 4 with a score of 030 or ALEKS Overall Test 5 with a score of 030).
Corequisites: AMT A174.

AMT A175 Drawing and Precision Measurement **1 Credit**
Examines the theory and techniques involved in making and reading aircraft drawings, and blueprints. Introduces precision measurement techniques and practices, and the use of blueprint information.
Registration Restrictions: Admission to the Undergraduate Certificate in Aviation Maintenance Technology, Airframe, Undergraduate Certificate in Aviation Maintenance Technology, Powerplant, Associate of Applied Science in Aviation Maintenance Technology, or the Bachelor of Science in Aviation Technology

AMT A176 Aircraft Materials and Processes I **2 Credits**
Introduces aircraft cleaning, corrosion control, materials, and aircraft hardware. Covers the selection of appropriate cleaning chemicals and processes. Describes the identification, selection, and installation of aircraft hardware, fluid lines, and fittings. Examines the performance of aircraft processes such as heat treating and hardness testing.
Registration Restrictions: Admission to the Undergraduate Certificate in Aviation Maintenance Technology, Airframe, Undergraduate Certificate in Aviation Maintenance Technology, Powerplant, Associate of Applied Science in Aviation Maintenance Technology, or the Bachelor of Science in Aviation Technology
Prerequisites: AMT A170 with a minimum grade of D or concurrent enrollment.

AMT A177 Aircraft Powerplant Theory **3 Credits**
Introduces the theory of operation and construction of the internal combustion engine. Examines the combustion processes, design rationale, cooling, and lubrication of internal combustion reciprocating engines. Examines the construction and operation of turbine engines. Introduces thrust development and design, and environmental factors that influence thrust, along with construction details from inlet to exhaust for representative aircraft turbine engines.
Registration Restrictions: Admission to the Undergraduate Certificate in Aviation Maintenance Technology, Airframe, Undergraduate Certificate in Aviation Maintenance Technology, Powerplant, Associate of Applied Science in Aviation Maintenance Technology, or the Bachelor of Science in Aviation Technology

AMT A178 Turbine Engine Theory **2 Credits**
Examines the construction and operation of turbine engines. Introduces thrust development and design and environmental factors that influence thrust, along with construction details from inlet to exhaust for representative aircraft turbine engines.
Registration Restrictions: Admission to the Undergraduate Certificate in Aviation Maintenance Technology, Airframe, Undergraduate Certificate in Aviation Maintenance Technology, Powerplant, Associate of Applied Science in Aviation Maintenance Technology, or the Bachelor of Science in Aviation Technology.

AMT A181 Aircraft Fuel Systems **2 Credits**
Examines aircraft fuels, fuel/air mixtures, basic fuel systems, and fuel metering devices. Introduces the application of fuels, metering systems, tanks, valves, fuel lines, carburetors, fuel injection systems, turbochargers, and superchargers utilized in a variety of modern aircraft.
Prerequisites: AMT A176 with a minimum grade of D.
Corequisites: AMT A181L.

AMT A181L Aircraft Fuel Systems Lab **2 Credits**
Examines the identification, handling, inspection, servicing, and troubleshooting of aircraft fuels, basic fuel systems, and fuel metering devices, including complex aircraft systems, tanks, valves, fuel lines, carburetors, fuel injection systems, turbo-chargers, and superchargers.
Prerequisites: AMT A170 with a minimum grade of D and AMT A176 with a minimum grade of D.
Corequisites: AMT A181.

AMT A184 Aircraft Electrical Machinery **2 Credits**
Examines the construction, operation, inspection, servicing, and repair of aircraft electrical components such as electric motors, generators, alternators, voltage controls, magnetos, and ignition system components.
Prerequisites: AMT A174 with a minimum grade of D.
Corequisites: AMT A184L.

AMT A184L Aircraft Electrical Machinery Lab **1 Credit**
Applies practices in inspecting, servicing, operation, testing, and repair of electrical components such as electrical motors, DC generators, DC alternators, AC alternators, voltage regulators, reverse current relays, generator and alternator protection devices, magnetos, and ignition system components.
Prerequisites: AMT A174L with a minimum grade of D.
Corequisites: AMT A184.

AMT A185 Aircraft Sheetmetal Structures **1 Credit**
Introduces sheetmetal, its properties, and uses in fabrication of structural and nonstructural components of aerospace vehicles. Inspection techniques are addressed along with fabrication and repair processes of bending, cutting, forming, drilling, and riveting aluminum sheetmetal parts.
Prerequisites: AMT A176 with a minimum grade of D.
Corequisites: AMT A185L.

AMT A185L Aircraft Sheetmetal Structures Lab **3 Credits**
Examines the inspection, fabrication, and repair of aircraft sheetmetal structures including the processes of bending, cutting, forming, drilling, and riveting aluminum sheetmetal parts.
Prerequisites: AMT A170 with a minimum grade of D and AMT A176 with a minimum grade of D.
Corequisites: AMT A185.

AMT A186 Aircraft Non-Destructive Inspection Methods **2 Credits**
Introduces the selection and use of appropriate non-destructive testing methods commonly employed in the aircraft industry such as visual, dye penetrant, magnetic particle, eddy current, and ultrasound.
Prerequisites: AMT A170 with a minimum grade of D.

AMT A187 Aircraft Powerplant Repair and Overhaul **3 Credits**
Introduces the overhaul practices for aircraft engines. Includes disassembly, cleaning, non-destructive testing, measurement, lubrication, and assembly of aircraft engines.
Prerequisites: AMT A176 with a minimum grade of D and AMT A177 with a minimum grade of D.

AMT A187L Aircraft Reciprocating Engine Overhaul Lab **2 Credits**
Provides practice in the performance of overhaul of aircraft reciprocating engines. Describes disassembly, cleaning, non-destructive testing, measurement, lubrication, and assembly of aircraft reciprocating engines.
Prerequisites: AMT A170 with a minimum grade of D and AMT A175 with a minimum grade of D.
Corequisites: AMT A187.

AMT A205 Airframe Mechanics **2 Credits**
Presents fundamentals of metallic and non-metallic structures, flight controls, airframe inspection, and the following systems: landing gear, hydraulic and pneumatic, environmental, aircraft instrument, communications, light signals, and runway lighting, aircraft fuel, aircraft electrical, ice and rain control, airframe fire protection, water and waste, and rotorcraft fundamentals. Prepares students for the FAA Mechanics Airframe Knowledge Exam.
Registration Restrictions: Completed Federal Aviation Administration (FAA) Form 8610-2, Airman Certificate and/or Rating Application signed in block V by FAA Airworthiness Inspector, or instructor approval

AMT A205L Airframe Mechanics Laboratory **2 Credits**
Practical application of the fundamentals of metallic and non-metallic structures, flight controls, airframe inspection, and the following systems: landing gear, hydraulic and pneumatic, environmental, aircraft instrument, communications, light signals, and runway lighting, aircraft fuel, aircraft electrical, ice and rain control, airframe fire protection, water and waste, and rotorcraft fundamentals. Prepares students for the FAA Mechanics Airframe Oral and Practical Exam.
Registration Restrictions: Completed Federal Aviation Administration (FAA) Form 8610-2, Airman Certificate and/or Rating Application signed in block V by FAA Airworthiness Inspector, or instructor approval

AMT A215 Powerplant Mechanics **2 Credits**
Presents fundamentals of reciprocating and turbine engines, engine inspection, and the following systems: engine instrument, engine fire protection, engine electrical, engine lubrication, ignition and starting, engine fuel and fuel metering, reciprocating engine induction and cooling, turbine engine air, engine exhaust and reverser, and propellers. Prepares students for the FAA Mechanics Powerplant Knowledge Exam.
Registration Restrictions: Completed Federal Aviation Administration (FAA) Form 8610-2, Airman Certificate and/or Rating Application signed in block V by FAA Airworthiness Inspector, or instructor approval

AMT A215L Powerplant Mechanics Laboratory **2 Credits**
Practical application of the fundamentals of reciprocating and turbine engines, engine inspection, and the following systems: engine instrument, engine fire protection, engine electrical, engine lubrication, ignition and starting, engine fuel and fuel metering, reciprocating engine induction and cooling, turbine engine air, engine exhaust and reverser, and propellers. Prepares students for the Federal Aviation Administration (FAA) Mechanics Powerplant Oral and Practical Exam.
Registration Restrictions: Completed Federal Aviation Administration (FAA) Form 8610-2, Airman Certificate and/or Rating Application signed in block V by FAA Airworthiness Inspector, or instructor approval

AMT A272 Aircraft Electrical Hardware and Systems **3 Credits**
Examines the operation, application, servicing, and installation practices of aircraft electrical components such as switches, relays, fuses, other circuit protection devices, wires, and connectors. Describes components such as aircraft batteries, power generators (DC and AC), and aircraft electrical distribution systems. Details the methods used in testing, inspecting, and troubleshooting these components.
Prerequisites: AMT A174 with a minimum grade of D and AMT A174L with a minimum grade of D.

AMT A273 Aircraft Fluid Power Systems **2 Credits**
Introduces fluid power and the application of pressure, force, area, volume, flow and speed, and function of fluid power in aircraft systems. Examines fluids, seals, hoses, tubing, connections, component identification and function, inspection, installation, and overhaul. Explores system operation, inspection, and troubleshooting for hydraulic, pneumatic, and landing gear systems.
Prerequisites: AMT A176 with a minimum grade of D.
Corequisites: AMT A273L.

AMT A273L Aircraft Fluid Power Systems Lab **1 Credit**
Examines the identification, installation, operation, and servicing of fluid power systems and components such as fluids, seals, hoses, tubing, connections, pumps, valves, regulators, filters, reservoirs, and actuators. Analyses of system operation, inspection, and troubleshooting are included for hydraulic, pneumatic, and landing gear systems.
Prerequisites: AMT A170 with a minimum grade of D and AMT A176 with a minimum grade of D.
Corequisites: AMT A273.

AMT A274 Aircraft Electronic Systems and Instruments **3 Credits**
Examines the use of mechanical and electronic systems in sensing, communicating, and displaying information, along with solid state and digital devices, sensors, and special circuits used in instrumentation systems on aircraft. Analyzes the methods used in testing, inspecting, and troubleshooting those systems.
Prerequisites: AMT A174 with a minimum grade of D.
Corequisites: AMT A274L.

AMT A274L Aircraft Electronic Systems and Instruments Lab **2 Credits**
Provides practice in creating, operating, testing, and analyzing solid state and digital devices, sensors, and special circuits used in instrumentation systems, and the mechanical and electrical systems used in sensing, communicating, and displaying information in aircraft.
Prerequisites: AMT A170 with a minimum grade of D and AMT A174L with a minimum grade of D.
Corequisites: AMT A274.

AMT A279 Aircraft Turbine Engine Repair and Overhaul **3 Credits**
Examination of turbine engine construction details and engine support systems. Examination of operational characteristics and the procedures and practices used to repair or overhaul typical aircraft turbine systems.
Prerequisites: AMT A175 with a minimum grade of D and AMT A178 with a minimum grade of D.
Corequisites: AMT A279L.

AMT A279L Aircraft Turbine Engine Repair and Overhaul Lab **1 Credit**
Examines practices involved in the disassembly, assembly, inspection, and repair of aircraft turbine engines. Emphasizes the use of technical data, appropriate tools, and inspection devices along with special safety procedures related to the servicing, operation, and repair of aircraft turbine engines.
Prerequisites: AMT A175 with a minimum grade of D and AMT A177 with a minimum grade of D.
Corequisites: AMT A187.

AMT A282 Aircraft Propeller Systems **1 Credit**
Examines the installation, operation, inspection, performance testing, and troubleshooting of aircraft propeller systems.
Prerequisites: AMT A170 with a minimum grade of D and AMT A177 with a minimum grade of D.

AMT A283 Aircraft Auxiliary and Avionics Systems **2 Credits**
Examines the operation, maintenance, servicing, inspection, and troubleshooting of auxiliary systems on aircraft. Details the environmental control systems, oxygen systems, ice - rain control systems, instrumentation, fire protection, and associated indicating - warning systems of commuter and transport category aircraft. Examines the fundamentals of design, installation, operation, testing and maintenance of airborne communication, navigation, instrument, and auto flight systems.
Prerequisites: AMT A274 with a minimum grade of D.
Corequisites: AMT A283L.

AMT A283L Aircraft Auxiliary and Avionics Systems Lab **1 Credit**
Examines the operation, maintenance, servicing, inspection, and troubleshooting of auxiliary and avionics systems utilized on aircraft. Skill-building practice is provided in operating, servicing, and troubleshooting systems using system schematics, wiring diagrams, and maintenance information.
Prerequisites: AMT A170 with a minimum grade of D and AMT A274L with a minimum grade of D.
Corequisites: AMT A283.

AMT A285 Aircraft Bonded Structures **2 Credits**
Examines the theory and techniques used in the fabrication, inspection, repair, and finishing of bonded structures, plastics, wood structures, fabric covering, honeycomb structures, and advanced composite structures.
Prerequisites: AMT A176 with a minimum grade of D.
Corequisites: AMT A285L.

AMT A285L Aircraft Bonded Structures Lab **1 Credit**
Provides practice in the fabrication, inspection, and repair of bonded structures including plastics, fabric covering, honeycomb structures, advanced composite structures, and painting.
Prerequisites: AMT A170 with a minimum grade of D and AMT A176 with a minimum grade of D.
Corequisites: AMT A285.

AMT A286 Aircraft Materials and Processes II **1 Credit**
Examines the theory of and techniques used in the repair of aircraft steel structures, and certain aluminum, magnesium, and titanium components.
Prerequisites: AMT A170 with a minimum grade of D and AMT A176 with a minimum grade of D.

AMT A287 Aircraft Powerplant Installation and Operation **3 Credits**
Provides an in-depth study of the installation, operation, and inspection of aircraft reciprocating and turbine engines. Examines the application of performance testing and troubleshooting practices commonly used to diagnose and correct aircraft engine problems.
Prerequisites: AMT A181 with a minimum grade of D and AMT A187 with a minimum grade of D.
Corequisites: AMT A287L.

AMT A287L Aircraft Powerplant Installation and Operation Lab **2 Credits**
Provides practice in the installation, operation, and inspection of aircraft reciprocating and turbine engines. Details the application of performance testing and troubleshooting practices commonly used to diagnose and correct aircraft engine problems.
Prerequisites: AMT A170 with a minimum grade of D and AMT A181L with a minimum grade of D and AMT A187L with a minimum grade of D.
Corequisites: AMT A287.

AMT A288 Airframe Assembly and Inspections **3 Credits**
Examines the procedures and rules for performance of scheduled and non-scheduled aircraft inspections. Evaluates the condition of aircraft and their systems to determine airworthiness. Conducts research on regulations and conformity data. Plans and performs inspections, then analyzes and records findings. Details aircraft disassembly, balancing, reassembly, weight and balance, and the procedures for rigging of structural assemblies and flight control systems.
Prerequisites: AMT A174 with a minimum grade of D and AMT A185 with a minimum grade of D.
Corequisites: AMT A288L.

AMT A288L Airframe Assembly and Inspections Lab **2 Credits**
Provides practice in the performance of scheduled and non-scheduled aircraft inspections. Includes practice in the performance of jacking - weighing of aircraft and disassembly, balancing, reassembly, and rigging of aircraft assemblies - flight controls, researching data, inspecting systems and components, evaluating the condition of aircraft and systems to determine air worthiness, and recording findings in maintenance records.
Prerequisites: AMT A174L with a minimum grade of D and AMT A185L with a minimum grade of D.
Corequisites: AMT A288.

AMT A364 Aircraft Avionics Systems **3 Credits**
Examines the fundamentals of design, installation, operation, testing, and maintenance of airborne communication, navigation, instrument, and auto flight systems.
Prerequisites: AMT A274 with a minimum grade of D.

Aviation Technology/ Administration/Management (ATA)

Courses

ATA A102 Introduction to Aviation Technology **3 Credits**
Introduces aspects of the aviation transportation industry, including general aviation, airlines, airports, aircraft manufacturing, and government organizations. Provides an overview of aviation history. Outlines career opportunities in the aviation industry, including certifications, job qualifications, concepts and responsibilities of an aviation professional.

ATA A133 Aviation Law and Regulations **3 Credits**
Overviews the U.S. legal system, origin of laws (national and international) influencing aviation, case studies of aviation litigation, and organization. Includes authority, responsibility, and functions of the entities that regulate or influence modern aviation.

ATA A134 Principles of Aviation Administration **3 Credits**
Introduces business administration in general, with an aviation focus. Emphasizes the theories of corporate organization and management. Examines trends in aviation administration.

ATA A233 Aviation Safety **3 Credits**
Surveys aviation safety to identify primary causes of aviation accidents. Introduces the process of developing and evaluating safety programs, as well as developing interventions. Introduces the concepts of Safety Management Systems (SMS) and examines the roles of the National Transportation Safety Board (NTSB), other appropriate agencies, and future concepts in aviation safety.
Prerequisites: ATA A102 with a minimum grade of C or ATC A147 with a minimum grade of C or concurrent enrollment.

ATA A290 Selected Topics in Aviation Technology **1-6 Credits**
Provides introductory learning in topic areas related to the aviation industry. Course content is determined by current industry trends, topic aspects, and student needs. Emphasizes identification, summation, and understanding of current aviation topics.
Special Note: A maximum of 6 credits may be applied toward the Bachelor of Science in Aviation Technology. May be repeated for a maximum of 6 credits with a change in subtitle.
Registration Restrictions: Department approval

ATA A331 Human Factors in Aviation **3 Credits**
Covers human factors of flight, including physiological and mental aspects.
Prerequisites: ATA A233 with a minimum grade of C.

ATA A335 Airport Operations **3 Credits**
Examines the management and operation of civil airports.
Registration Restrictions: Junior standing
Prerequisites: ATA A102 with a minimum grade of C and ATA A134 with a minimum grade of C.

ATA A336 Air Service Operations **3 Credits**
Assesses functions of air service operations. Analyzes organization, financing, revenues and expenses, construction, expansion, safety, and working relations with local agencies, including airport management.
Registration Restrictions: Junior standing
Prerequisites: ATA A102 with a minimum grade of C and ATA A134 with a minimum grade of C.

ATA A337 Airline Operations **3 Credits**
Analyzes airline organization and management, including classifications, management methods, governmental relationships, and financial positions. Examines airline operations, market research, demand determination, and effects of FAA regulations.
Prerequisites: ATA A102 with a minimum grade of D and ATA A134 with a minimum grade of D.

ATA A415 Crew Resource Management **3 Credits**
Examines Crew Resource Management (CRM) principles and programs in various aviation employment settings, such as piloting, Air Traffic Control (ATC), management, and aviation maintenance. Examines how to evaluate human perceptions and the decision-making process in the aviation environment. Examines how to develop CRM training programs applicable in various aviation employment settings.
Prerequisites: ATA A331 with a minimum grade of C.

ATA A425 Civil Aviation Security **3 Credits**
Analyzes applicable civil aviation transportation security regulations and policy. Assesses security risks and formulates potential intervention, prevention, or enhancement plans using current and developing technology.

ATA A431 Aircraft Accident Investigation **3 Credits**
Provides a comparative examination of elements and issues used in a field and laboratory investigation of an aircraft accident. Focuses on researching, discovering and analyzing the facts used to determine probable cause of an aircraft accident. Teaches how to develop a corrective action plan to prevent recurrence.
Prerequisites: ATA A233 with a minimum grade of C and ATA A331 with a minimum grade of C.

ATA A490 Advanced Topics in Aviation Technology **1-6 Credits**
Provides advanced theoretical and/or experiential learning in all areas of aviation technology, aviation maintenance, professional piloting, aviation administration, and Air Traffic Control (ATC). Specific course content is determined by current industry trends and student needs. Emphasizes the following applications to current technical information: analysis, evaluation and synthesis.
Special Note: May be repeated for a maximum of 6 credits with a change of subtitle. A maximum of 6 credits may be applied toward the Bachelor of Science in Aviation Technology.
Registration Restrictions: Department approval

ATA A492 Air Transportation System Seminar **3 Credits**
Analyzes and evaluates current events, issues, globalization, and emerging technologies in the air transportation industry. Evaluates present and future implications for the industry. Integrates technical, business, and general education knowledge to complete research and project assignments.
Registration Restrictions: Completion of GER Tier 1 (basic college-level skills) courses. Junior standing and division approval required.
Prerequisites: ATA A337 with a minimum grade of C.
Attributes: UAA Integrative Capstone GER.

Aviation Tech/Professional Piloting (ATP)

Courses

ATP A100 Private Pilot Ground School **3 Credits**
Prepares students for Federal Aviation Administration (FAA) Private Pilot Airplane Knowledge Test. Includes basic aerodynamics, aircraft systems, engine operation, flight instruments, radio communication, navigation, weather information and weather dissemination services. Covers Federal Aviation Regulations (FARs) and the Aeronautical Information Manual (AIM).
Prerequisites: (MATH A055 with a minimum grade of C or concurrent enrollment or MATH A104 with a minimum grade of C or concurrent enrollment or MATH A105 with a minimum grade of C or concurrent enrollment or MATH A121 with a minimum grade of C or concurrent enrollment or MATH A151 with a minimum grade of C or concurrent enrollment or MATH A152 with a minimum grade of C or concurrent enrollment or MATH A155 with a minimum grade of C or concurrent enrollment or MATH A211 with a minimum grade of C or concurrent enrollment or MATH A212 with a minimum grade of C or concurrent enrollment or MATH A221 with a minimum grade of C or concurrent enrollment or MATH A251 with a minimum grade of C or concurrent enrollment or MATH A251F with a minimum grade of C or concurrent enrollment or MATH A252 with a minimum grade of C or concurrent enrollment or MATH A252F with a minimum grade of C or concurrent enrollment or MATH A253 with a minimum grade of C or concurrent enrollment or ALEKS Overall Test 1 with a score of 30 or ALEKS Overall Test 2 with a score of 30 or ALEKS Overall Test 3 with a score of 30 or ALEKS Overall Test 4 with a score of 30 or ALEKS Overall Test 5 with a score of 30) and (ENGL A109 with a minimum grade of C or WRTG A110 with a minimum grade of C or WRTG A111 with a minimum grade of C or WRTG A1W with a minimum grade of C or WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C or WRTG A2W with a minimum grade of C or (Accuplacer-Reading Comp with a score of 080 and Accuplacer-Sentence Skills with a score of 090) or Accuplacer-Sum AASS + AARC with a score of 170 or (Accuplacer NG Writing with a score of 265 and Accuplacer NG Reading with a score of 265) or Accuplacer NG AAWR + AARE with a score of 530 or Enhanced ACT English with a score of 22 or EVIDENCE-BASED READ/WRIT SCORE with a score of 560).

ATP A101 Pre-Professional Flying **2 Credits**
Provides beginning flight instruction for students intending to become professional pilots.
Special Note: Open-entry/open-exit. Students must complete Private Pilot Ground School at UAA.
Registration Restrictions: FAA Student Pilot Certificate, current FAA Class II Medical Certificate, and department approval
Prerequisites: ATP A100 with a minimum grade of B.

ATP A104 Flying Alaska Bush **3 Credits**
Provides specialized discussion concerning unique flying conditions faced by Alaskan pilots. Covers basic aerodynamics, mountain flying, skis, floats, wheels, judgment of unimproved landing areas, characteristics of Alaskan weather, external loads, and emergency field maintenance.
Registration Restrictions: Private Pilot Certificate or higher rating

ATP A107 Remote Pilot Aircraft System Part 107 **1 Credit**
Introduces the history, applications, and technologies of unmanned aerial systems (UAS). Prepares the student to take the Federal Aviation Administration (FAA) Part 107 test.

ATP A116 Instrument Ground School **3 Credits**
Provides preparation for the Federal Aviation Administration (FAA) Instrument Pilot Knowledge Test and flight training under Instrument Flight Rules (IFR). Includes human factors, flight systems, instrument navigation, aeronautical charts and publications, airspace, FAA regulations, and pilot responsibilities.
Special Note: Two hours in a Flight Training Device (FTD) is required.
Registration Restrictions: FAA Private Pilot Certificate or equivalent
Prerequisites: ATP A100 with a minimum grade of C and ATP A101 with a minimum grade of C.

ATP A126 Instrument Flying **2 Credits**
Fulfills Federal Aviation Administration (FAA) flight training requirements for an Instrument Airplane rating under Federal Aviation Regulation (FAR) Part 141.
Special Note: Open-entry/open-exit. Instrument Ground School must be completed at UAA unless reviewed and waived by the Chief Pilot.
Registration Restrictions: FAA Private Pilot Certificate and current FAA Class II Medical Certificate if course prerequisite is not met and department approval
Prerequisites: ATP A116 with a minimum grade of C or concurrent enrollment.

ATP A127 Helicopter Transition Instrument Flying **2 Credits**
Fulfills Federal Aviation Administration (FAA) flight training requirements for an Instrument Airplane additional category/class under Federal Aviation Regulation (FAR) Part 141.
Special Note: Open-entry/open-exit.
Registration Restrictions: Department approval

ATP A200 Commercial Ground School **3 Credits**
Provides preparation for the Federal Aviation Administration (FAA) Commercial Pilot Knowledge Test. Includes advanced studies of private pilot topics, high performance and complex aircraft, commercial flight maneuvers, and commercial Federal Aviation Regulations (FARs).
Registration Restrictions: FAA Private Pilot Certificate or equivalent

ATP A207 Remotely Piloted Aircraft Systems Applications **1 Credit**
Introduces major subsystems common to most Unmanned Aircraft Systems (UAS), and provides advanced UAS platform training. Covers UAS power systems, autopilot systems, user-interface software, sensors, aerodynamics, flight controls, airborne communication systems, as well as mission design, planning, execution, and analysis. Includes the challenges of UAS integration into the national airspace system, crew qualifications and training, safety, and human factors.

ATP A208 Remotely Piloted Aircraft Systems Flight Operations **1 Credit**
Presents the practical elements of Remotely Piloted Aircraft Systems flight operations. Exposes students to physical interaction with Unmanned Aerial Systems (UAS) and flight in the National Airspace System (NAS) after completion of the Federal Aviation Administration Part 107 license and the advanced drone operations course.
Special Note: Enrolled students must present a current FAA Part 107 license.

ATP A218 Commercial Flying I **1.5 Credit**
Provides flight training to review basic private pilot maneuvers and introduces advanced flight maneuvers required of a commercial pilot.
Special Note: Open-entry/open-exit. Commercial Ground School must be completed at UAA or waived by the Chief Pilot.
Registration Restrictions: Private Pilot Certificate, current FAA Class II Medical Certificate and department approval
Prerequisites: ATP A116 with a minimum grade of C and ATP A200 with a minimum grade of C or concurrent enrollment.

ATP A219 Commercial Flying II **1.5 Credit**
Provides flight training to build proficiency and experience in cross-country flying and night operations. Includes introduction to complex airplanes.
Special Note: Open-entry/open-exit.
Registration Restrictions: Department approval
Prerequisites: ATP A218 with a minimum grade of C.

ATP A220 Commercial Flying III **2 Credits**
Develops proficiency required to pass the FAA Commercial Pilot Practical Flight Test.
Special Note: Open-entry/open-exit.
Registration Restrictions: Department approval
Prerequisites: ATP A219 with a minimum grade of C.

ATP A221 Helicopter Transition Commercial Flying I **1.5 Credit**
Provides flight training to review basic private pilot maneuvers and introduces the advanced flight maneuvers required of a commercial fixed wing pilot.
Special Note: Open-entry/open-exit.
Registration Restrictions: Department approval

ATP A222 Helicopter Transition Commercial Flying II **1.5 Credit**
Provides flight training to build proficiency and experience in cross-country flying and night operations. Includes introduction to complex airplanes.
Special Note: Open-entry/open-exit.
Registration Restrictions: Department approval

ATP A223 Helicopter Transition Commercial Flying III **2 Credits**
Develops proficiency required to pass the FAA Commercial Pilot Airplane Practical Flight Test.
Special Note: Open-entry/open-exit.
Registration Restrictions: Department approval

ATP A225 Tailwheel Airplane Transition **1 Credit**
Intended for pilots wishing to transition from tricycle gear airplanes to tailwheel airplanes.
Special Note: Open-entry/open-exit.
Registration Restrictions: FAA Commercial Pilot Airplane Single-Engine Certificate
Prerequisites: ATP A220 with a minimum grade of C.

ATP A235 Elements of Weather **3 Credits**
Defines the elements of weather. Explains methods of measurement, composition of the atmosphere, description of atmospheric processes, and weather movement. Explains the general circulation of the atmosphere, wind and secondary circulation. Details weather reports and forecasts. Explains the use of weather satellites.

ATP A300 CFI Ground School **3 Credits**
Prepares students for the Federal Aviation Administration (FAA) Certified Flight Instructor Knowledge Test. Includes principles of teaching and learning, analysis of student motivation, flight training syllabi, and the flight instructor's role and responsibilities. Covers performance and analysis of flight training maneuvers, advanced aerodynamics, fundamentals of instrument flight, flight training publications, and Federal Aviation Regulations (FARs).
Registration Restrictions: Department approval
Prerequisites: ATP A200 with a minimum grade of C.

ATP A301 CFI Flying **2 Credits**
Addresses Federal Aviation Administration (FAA) flight training requirements and required knowledge for obtaining a Certified Flight Instructor (CFI) certificate under Federal Aviation Regulations (FAR) Part 141.
Special Note: Open entry/open exit.
Registration Restrictions: FAA Commercial Pilot Certificate with Instrument Rating or equivalent. Departmental approval required.
Prerequisites: ATP A220 with a minimum grade of C and ATP A300 with a minimum grade of C or concurrent enrollment.

ATP A305 Airplane Multiengine Land Rating **2 Credits**
Provides flight and ground instruction for Professional Piloting students seeking the Federal Aviation Administration (FAA) Airplane Multiengine Land Rating.
Special Note: Open entry/open exit.
Registration Restrictions: Department approval
Prerequisites: ATP A220 with a minimum grade of C or concurrent enrollment.

ATP A320 Flight Dynamics **3 Credits**
Applies selected physical and mathematical principles to the analysis and prediction of aircraft performance. Presents general methods for analyzing and predicting aircraft performance in all flight regimes. Builds on knowledge introduced in previous pilot ground and flight courses, aviation weather courses, science, and mathematics courses.
Registration Restrictions: Junior or senior standing
Prerequisites: AMT A171 with a minimum grade of C and ATP A200 with a minimum grade of C and (MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A211 with a minimum grade of C or MATH A212 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C).

ATP A332 Transport Aircraft Systems **3 Credits**
Describes and examines the components of transport aircraft systems, their design, performance, capabilities, limitations, interrelationships, and contribution to the operation, safety, efficiency and economy of the aircraft.
Prerequisites: ATP A200 with a minimum grade of D.

ATP A405 Additional CFI Rating **2 Credits**
Provides flight instruction for Professional Piloting students seeking additional ratings on their Flight Instructor Certificate, e.g., Instrument and/or Multi-engine.
Special Note: Open-entry/open-exit.
Registration Restrictions: Certified Flight Instructor Certificate required. Department approval required.

ATP A406 Flight Instructor Instrument Flight **2 Credits**
Provides instruction for an additional flight instructor rating - instrument airplane in accordance with the Federal Aviation Administration Practical Test Standards.
Registration Restrictions: Junior or senior standing and must already hold a Commercial Pilot Certificate

ATP A433 Aerospace Physiology **3 Credits**
Surveys and explores the physiological information significant to pilots and others in the aviation community. Discusses the importance of physiological factors involved in flight.
Prerequisites: ATA A331 with a minimum grade of C.

Biology (BIOL)

Courses

BIOL A074 Field Natural History **1-3 Credits**
A short course on field natural history. Classes may focus on fungi, invertebrates, fish, mammals, birds, mosses and lichens, tracking, ecosystems and/or climate.
Special Note: May be repeated for credit. May include extensive hiking and camping. Community service course.

BIOL A100 Human Biology **3 Credits**
Survey of biological principles as applied to human anatomy, physiology and genetics.
Special Note: Intended for non-science majors. Does not satisfy major requirements for Bachelor of Arts or Bachelor of Science in Biological Sciences.
Registration Restrictions: Placement into Quantitative Skills GER or Written Communication Skills GER
Attributes: UAA Natural Sciences GER.

BIOL A102 Introductory Biology **3 Credits**
Explores biological concepts and competencies that will provide the non-biologist a working knowledge of life sciences that can be applied when making decisions on health and the environment.
Special Note: Primarily for non-science majors.
Attributes: UAA Natural Sciences GER.

BIOL A103 Introductory Biology Laboratory **1 Credit**
Presents introductory biological concepts including characteristics of life, evolution, genetics, energetics, ecology, biotechnology and the scientific method. Provides the non-biologist with knowledge of biology enabling them to make informed decisions in areas such as health and the environment.
Special Note: Primarily for non-science majors.
Prerequisites: BIOL A102 with a minimum grade of D or concurrent enrollment.
Attributes: UAA Natural Sci Lab Only GER.

BIOL A104 Natural History of Alaska **3 Credits**
Examines the animals and plants of Alaska, how they fit together into communities, the environmental and historical factors influencing their distributions, and changes occurring to these distributions.

BIOL A107 Introduction to Anatomy and Physiology **1 Credit**
Presents concepts of chemistry, cell biology, histology and specific systems of the human integumentary, skeletal, muscular and nervous systems. Provides learning resources and strategies for students to be successful in Anatomy and Physiology.

BIOL A108 Principles and Methods in Biology **6 Credits**
Introduces the biological sciences through an exploration of core themes and fundamental skills. Exposes students to biological theory and laboratory practice through integrated lecture and experiential learning modules.
Prerequisites: CHEM A105 with a minimum grade of C or concurrent enrollment.
Corequisites: BIOL A108L.
Attributes: UAA Natural Science w/ Lab GER.

BIOL A110 Survey of Brewing and Fermentation Science **2 Credits**
Introduces styles, terminology, flavors, faults, and proper service of beer and other fermented beverages. Discusses brewing processes and brewing science. Demonstrates commercial brewing, careers in brewing, and other fermented beverage industries.
Special Note: Must be age 21 or older by the first day of class.

BIOL A111 Human Anatomy and Physiology I **3 Credits**
Integrates human structure and function. Provides a foundation in relevant chemistry, cell biology, histology and unifying concepts. Covers integumentary, skeletal, muscular and nervous systems.
Special Note: Does not apply for biology major credit. Though not required, students are encouraged to register for BIOL A111 and BIOL A111L in the same semester.
Prerequisites: (WRTG A110 with a minimum grade of C or (Accuplacer-Reading Comp with a score of 080 and Accuplacer-Sentence Skills with a score of 090) or Accuplacer-Sum AASS + AARC with a score of 170 or (Accuplacer NG Writing with a score of 265 and Accuplacer NG Reading with a score of 265) or Accuplacer NG AAWR + AARE with a score of 530 or Enhanced ACT English with a score of 36 or EVIDENCE-BASED READ/WRIT SCORE with a score of 480) and (MATH A055 with a minimum grade of C or MATH A060 with a minimum grade of C or ALEKS Overall Test 1 with a score of 030 or ALEKS Overall Test 2 with a score of 030 or ALEKS Overall Test 3 with a score of 030 or ALEKS Overall Test 4 with a score of 030 or ALEKS Overall Test 5 with a score of 030) or BIOL A107 with a minimum grade of C or concurrent enrollment.
Attributes: UAA Natural Sciences GER.

BIOL A111L Human Anatomy and Physiology I Lab **1 Credit**
Provides an integrated experiential learning of human structure and function with a hands-on foundation in relevant chemistry, cell biology, histology and unifying concepts. Covers integumentary, skeletal, muscular and nervous systems. Labs only, no lectures.
Special Note: Does not apply for biology major credit. Though not required, students are encouraged to register for BIOL A111 and BIOL A111L in the same semester.
Prerequisites: (WRTG A110 with a minimum grade of C or (Accuplacer-Reading Comp with a score of 080 and Accuplacer-Sentence Skills with a score of 090) or Accuplacer-Sum AASS + AARC with a score of 170 or (Accuplacer NG Writing with a score of 265 and Accuplacer NG Reading with a score of 265) or Accuplacer NG AAWR + AARE with a score of 530 or Enhanced ACT English with a score of 36 or EVIDENCE-BASED READ/WRIT SCORE with a score of 480) and (MATH A055 with a minimum grade of C or MATH A060 with a minimum grade of C or ALEKS Overall Test 1 with a score of 030 or ALEKS Overall Test 2 with a score of 030 or ALEKS Overall Test 3 with a score of 030 or ALEKS Overall Test 4 with a score of 030 or ALEKS Overall Test 5 with a score of 030) or BIOL A107 with a minimum grade of C or concurrent enrollment.
Attributes: UAA Natural Sci Lab Only GER.

BIOL A112 Human Anatomy and Physiology II **3 Credits**
Provides an integrated view of human structure and function with continuation of Human Anatomy and Physiology I. Covers endocrine, cardiovascular, lymphatic, immune, respiratory, digestive, urinary and reproductive systems.
Special Note: Does not apply for biology major credit. Though not required, students are encouraged to register for BIOL A112 and BIOL A112L in the same semester.
Prerequisites: BIOL A111 with a minimum grade of C and BIOL A111L with a minimum grade of C.
Attributes: UAA Natural Sciences GER.

BIOL A112L Human Anatomy and Physiology II Lab **1 Credit**
Provides an integrated experiential learning of human structure and function with a hands-on foundation in endocrine, cardiovascular, lymphatic, immune, respiratory, digestive, urinary and reproductive systems. Labs only, no lectures.
Special Note: Does not apply for biology major credit. Though not required, students are encouraged to register for BIOL A112 and BIOL A112L in the same semester.
Prerequisites: BIOL A111 with a minimum grade of C and BIOL A111L with a minimum grade of C.
Attributes: UAA Natural Sci Lab Only GER.

BIOL A125 Marine Skeletal Articulation **2 Credits**
Introduces the preparation of marine skeletons for museum-quality display. Introduces basic anatomy, form and function, as well as materials and general techniques for excavating, cleaning, collecting data from and articulating marine vertebrates.
Special Note: May be repeated twice for credit.

BIOL A127 Biota of Alaska: Introduction to Mariculture **3 Credits**
Introduces the principles, concepts, and methods used in the production of shellfish, seaweeds, and other mariculture species with an emphasis on techniques used by Alaskan producers. Covers aspects of aquatic farming, including site selection, permitting, daily operations, best management practices, business planning and processing, and safety and challenges that the Alaskan industry is facing.

BIOL A128 Biota of Alaska: Introduction to Field Ecology **3 Credits**
Introduces methods in field ecology and species identification. Explores characteristics of animals, plants, fungi, and protists of Alaska. Includes life history, habitat, ecology, and behavior.

BIOL A139 Introduction to Forestry **3 Credits**
Introduces forest management, utilization, and conservation. Covers cultural, ecological, and technical conditions which influence forest use and management.

BIOL A150 Introduction to Marine Biology **3 Credits**
Investigates marine natural history with emphasis on planktonic, benthic, and pelagic organisms in intertidal, subtidal, deep-sea, and pelagic ecosystems.
Special Note: May include field trips and extensive hiking.

BIOL A178 Introduction to Oceanography **3 Credits**
Study of the oceans combining insights from geological, chemical, physical and biological oceanography. Topics include plate tectonics and the evolution of the ocean basins, the chemical composition of seawater, forces acting on water to generate waves and currents, interrelationships among physical, chemical and biological processes, and complex societal issues such as global climate change, fisheries management and pollution.
Registration Restrictions: Placement into Quantitative Skills GER
Crosslisted With: GEOL A178
Attributes: UAA Natural Sciences GER.

BIOL A179 Introduction to Oceanography Laboratory **1 Credit**
Laboratory exercises designed to illustrate principles and concepts developed in the lecture (BIOL/GEOL A178).
Registration Restrictions: Placement into Quantitative Skills GER
Prerequisites: BIOL A178 with a minimum grade of D or concurrent enrollment or GEOL A178 with a minimum grade of D or concurrent enrollment.
Attributes: UAA Natural Sci Lab Only GER.

BIOL A190 Biota of Alaska: Selected Topics **1-4 Credits**
Explores characteristics of animals, plants, fungi, and protists of Alaska. Includes life history, habitat, ecology, and behavior.
Special Note: May include extensive hiking and camping. Can be repeated for a maximum of 6 credits.

BIOL A198 Individual Research **1-6 Credits**
Provides opportunities for lab and/or field investigations on specific subjects in biology, as approved and directed by mentoring faculty.
Special Note: May be repeated for a maximum of 6 credits.
Registration Restrictions: Instructor approval

BIOL A200 Introduction to Complexity **3 Credits**
Introduces the science of complexity, currently used to predict system behavior in the physical, life, and social sciences.
Prerequisites: MATH A121 with a minimum grade of D or MATH A151 with a minimum grade of D or MATH A152 with a minimum grade of D or MATH A155 with a minimum grade of D or MATH A211 with a minimum grade of D or MATH A212 with a minimum grade of D or MATH A221 with a minimum grade of D or MATH A251 with a minimum grade of D or MATH A251F with a minimum grade of D or MATH A252 with a minimum grade of D or MATH A252F with a minimum grade of D or MATH A253 with a minimum grade of D.
Attributes: UAA Natural Sciences GER.

BIOL A240 Introductory Microbiology for Health Sciences **3 Credits**
Provides a general introduction to microbiology covering bacterial metabolism and genetics, virology, host parasite interactions, host defense mechanisms and epidemiology.
Special Note: Recommended for associate and baccalaureate health science programs, not accepted for Biology degree credit.
Prerequisites: BIOL A112 with a minimum grade of C or concurrent enrollment and BIOL A112L with a minimum grade of C or concurrent enrollment.

BIOL A240L Introductory Microbiology for Health Sciences Laboratory **1 Credit**
Applies theory and lab practice in microbial ubiquity, growth, biosafety and aseptic practices, and identification of medically-important microorganisms. Emphasizes knowledge acquisition and practical lab application.
Special Note: Recommended for associate and baccalaureate health science programs. Laboratory exercises generally require students to return to the lab to record experimental results after 24 hours throughout the semester. Not accepted for biology degree credit. Students must attend lab the first week of class or they may be administratively dropped.
Prerequisites: BIOL A240 with a minimum grade of C or concurrent enrollment.

BIOL A242 Fundamentals of Cell Biology **3 Credits**
Fundamental concepts and processes important to the structure and function of the smallest unit of life.
Prerequisites: BIOL A108 with a minimum grade of C and CHEM A105 with a minimum grade of C and CHEM A105L with a minimum grade of C.

BIOL A243 Experiential Learning: Cell Biology and Genetics **4 Credits**
Experiential learning course that includes discussion of theories and concepts, and extensive laboratory exercises in cell and organismal culture, genetic analysis, nucleic acid and enzyme analysis, hypothesis testing and application of the scientific method. Introduces microscopy and spectroscopy, data analysis, statistical analysis, writing for scientific publication and oral presentation of scientific research.
Prerequisites: BIOL A242 with a minimum grade of C or concurrent enrollment and BIOL A252 with a minimum grade of C or concurrent enrollment.

BIOL A252 Principles of Genetics **3 Credits**
Basic principles of genes, heredity, and variation in living organisms at cellular, molecular and population levels.
Prerequisites: BIOL A108 with a minimum grade of C and CHEM A105 with a minimum grade of C and CHEM A105L with a minimum grade of C.

BIOL A271 Principles of Ecology **3 Credits**
Introduces the basic principles of ecology including the physical and biological nature of environment in relation to living systems; the physiological, morphological and behavioral adaptations of organisms; the dynamics and structures of populations, biological communities, ecosystems, and biomes; and the interdependence of natural and human systems.
Prerequisites: ENVI A211 with a minimum grade of C or (BIOL A108 with a minimum grade of C and CHEM A105 with a minimum grade of C and CHEM A106 with a minimum grade of C or concurrent enrollment).

BIOL A273 Experiential Learning: Ecology and Evolution **4 Credits**
Hands-on application of the principles of ecology and evolution in laboratory and field contexts including hypothesis testing, the use of the scientific method in practical laboratory and field applications, writing for scientific publication, and presentation of scientific information.
Prerequisites: BIOL A271 with a minimum grade of C or concurrent enrollment and BIOL A288 with a minimum grade of C or concurrent enrollment.

BIOL A288 Principles of Evolution **3 Credits**
Introduces the basic principles and mechanisms of the evolution of living systems emphasizing the evidence supporting modern understanding of the patterns and processes associated with individual and population variability, transmission of genetic information, lineage diversification, and biological change.
Prerequisites: BIOL A108 with a minimum grade of C.

BIOL A310 Principles of Animal Physiology **3 Credits**
Fundamental principles of cellular and system physiology of animals with emphasis on vertebrate and, in particular, human physiology.
Prerequisites: BIOL A242 with a minimum grade of C.

BIOL A311 Experiential Learning: Animal Physiology **2 Credits**
Focuses on the cellular and system physiology of animals. Emphasizes laboratory investigations of vertebrate physiology.
Prerequisites: (BIOL A243 with a minimum grade of C or BIOL A273 with a minimum grade of C) and BIOL A310 with a minimum grade of C or concurrent enrollment.

BIOL A320 Vertebrate Biology **3 Credits**
A survey of vertebrates of the world, with emphasis on their evolution, diversity and biogeography, and on comparative morphology, physiology, ecology, and behavior.
Prerequisites: BIOL A288 with a minimum grade of C.

BIOL A321 Experiential Learning: Vertebrate Biology **2 Credits**
Discusses theory and practice in vertebrate biology. Conducts laboratory activities focused on evolution, diversity and biogeography, comparative morphology, physiology, ecology, and behavior.
Prerequisites: (BIOL A243 with a minimum grade of C or BIOL A273 with a minimum grade of C) and (BIOL A320 with a minimum grade of C or concurrent enrollment or BIOL A487 with a minimum grade of C or concurrent enrollment).

BIOL A325 Advanced Marine Skeletal Articulation **2 Credits**
Introduces the preparation of marine skeletons for museum-quality display and three-dimensional augmented reality atlases. Introduces basic anatomy, form and function, as well as materials and general techniques for excavating, cleaning, collecting data from and articulating marine vertebrates. Atlas construction focuses on comparative anatomy.
Special Note: May be repeated twice for credit.
Prerequisites: BIOL A271 with a minimum grade of C.

BIOL A330 Plant Biology **3 Credits**
Exploration of plant anatomy, morphology, basic physiology, ecology, evolution and relationship of humans to plants.
Prerequisites: BIOL A288 with a minimum grade of C.

BIOL A395 Internship in Fermentation Sciences **3 Credits**
Participates in supervised internship at a craft brewery or other approved commercial producer of fermented food or beverage products.

Special Note: Must be age 21 or older by the first day of class.
Registration Restrictions: Admission to the Occupational Endorsement in Fermentation Science and instructor approval

BIOL A412 Behavioral Endocrinology **3 Credits**
Introduces the concepts of chemical messengers and the principles of hormonal integration of physiology and behavior associated with reproduction, stress, biological rhythms, and learning and memory.
Prerequisites: BIOL A310 with a minimum grade of C.

BIOL A413 Neurophysiology **3 Credits**
Explores the relationship between molecules, cells, systems and behavior. Focuses on membrane and electrical properties of neurons, synaptic physiology, human neuropathologies, and sensory and motor system function. Provides opportunities for community outreach in comparative neuroanatomy and neuroscience.
Special Note: Not available for credit to students who have completed BIOL A613.
May Be Stacked With: BIOL A613
Prerequisites: (BIOL A111 with a minimum grade of C and BIOL A111L with a minimum grade of C) or (BIOL A112 with a minimum grade of C or concurrent enrollment and BIOL A112L with a minimum grade of C or concurrent enrollment) or BIOL A310 with a minimum grade of C or concurrent enrollment or PSY A370 with a minimum grade of C or concurrent enrollment.

BIOL A415 Comparative Animal Physiology **3 Credits**
An examination of the physiological adaptations of marine, freshwater and terrestrial organisms. The comparative approach will be used in order to better understand how animals are uniquely adapted to their physical environment.
Special Note: Students who complete BIOL A415 as part of their undergraduate degree cannot receive credit toward their graduate degree from BIOL A615.
May Be Stacked With: BIOL A615
Prerequisites: BIOL A310 with a minimum grade of D.

BIOL A417 Applied Kinesiology and Exercise Physiology **3 Credits**
Examines the effects of acute and chronic exercise on physiological and biochemical processes in the body and the role of exercise in health and disease, soreness, and fatigue.
Prerequisites: (BIOL A111 with a minimum grade of C and BIOL A111L with a minimum grade of C and BIOL A112 with a minimum grade of C and BIOL A112L with a minimum grade of C) or BIOL A310 with a minimum grade of C.

BIOL A418 Fish Physiology **3 Credits**
Overviews fish physiology with emphasis on understanding the ways in which fish are uniquely adapted to their physical environment.
Prerequisites: BIOL A310 with a minimum grade of C.

BIOL A419 Sleep and Chronobiology **3 Credits**
Examines the presence and physiological basis of biological rhythms and how changes in the different lighting of the seasons, sleep/wake patterns and non-photic cues can impact the biological clock.
Special Note: Not available for credit to students who have completed BIOL A619.
May Be Stacked With: BIOL A619
Prerequisites: (BIOL A111 with a minimum grade of C and BIOL A111L with a minimum grade of C and BIOL A112 with a minimum grade of C and BIOL A112L with a minimum grade of C) or BIOL A310 with a minimum grade of C.

BIOL A423 Ichthyology **3 Credits**
Overviews the evolution, taxonomy, anatomy, physiology and ecology of fish emphasizing Alaska's taxa.
Prerequisites: BIOL A252 with a minimum grade of C and BIOL A320 with a minimum grade of C.

BIOL A424 Experiential Learning: Ichthyology **1 Credit**
Introduces lab and field-based ichthyology exercises which complement material in BIOL A423 Ichthyology lecture that explores the evolution, taxonomy, anatomy, physiology and ecology of fishes.
Prerequisites: BIOL A423 with a minimum grade of C or concurrent enrollment.

BIOL A427 Marine Invertebrate Biology **3 Credits**
A study of functional morphology, life history, systematics, evolution and other selected aspects of the biology of marine invertebrates.
Prerequisites: BIOL A242 with a minimum grade of C and BIOL A252 with a minimum grade of C.

BIOL A430 Marine Mammal Biology **3 Credits**
Introduces the biology and ecology of marine mammals, with an emphasis on understanding how marine mammals are adapted to their habitat, and the roles they play in marine ecosystems.
May Be Stacked With: BIOL A630
Prerequisites: BIOL A271 with a minimum grade of C.

BIOL A431 Plant Diversity and Evolution **3 Credits**
Focuses on understanding, organizing and describing plant diversity in relation to evolutionary principles; integrating data to address hypotheses; and identifying and classifying Alaskan flora.
Prerequisites: BIOL A271 with a minimum grade of C or BIOL A288 with a minimum grade of C.

BIOL A432 Experiential Learning: Marine Mammal Biology **2 Credits**
Introduces the theory and practice in scientific study of marine mammal biology. Emphasis on understanding their adaptations and roles in marine ecosystems. Students survey live and dead marine mammals in nearshore environments, conduct research and share data in areas such as anatomy, diving physiology, habitat use, group composition, reproduction, and interspecific interactions, including those with humans.
Prerequisites: BIOL A430 with a minimum grade of C or concurrent enrollment.

BIOL A441 Animal Behavior **3 Credits**
Explores the ecological, evolutionary, physiological and genetic bases of animal behavior.
Prerequisites: BIOL A288 with a minimum grade of C.

BIOL A442 Experiential Learning: Animal Behavior **3 Credits**
Theory and practice in research methods and analysis in animal behavior. Students conduct research in areas such as foraging behavior, communication, predator avoidance, sensory systems and social behaviors.
Prerequisites: BIOL A273 with a minimum grade of C.
Corequisites: BIOL A441.

BIOL A446 Global Climate Change **3 Credits**
Introduces the causes of climate change, the climate record, and the effects of past and forecast climate change on biophysical systems. Consideration of impacts on plants, animals, ice, sea level change, ocean acidification and people with an emphasis on Alaska and the Arctic.
Prerequisites: BIOL A271 with a minimum grade of C or ENVI A211 with a minimum grade of C.

BIOL A452 Human Genome **3 Credits**
Explores the human genome with emphasis on social aspects. Topics include the genetics of normal traits, genome structure and mapping, generation and utilization of genomic data, monogenic and polygenic diseases, genetic screening, population genetics and precision medicine, genomic evidence of human evolution and migration, DNA forensics, and ethical, legal and social implications (ELSI).
Special Note: Normally offered in alternating years.
Registration Restrictions: Completion of Tier 1 GER courses and junior standing
Prerequisites: ANTH A205 with a minimum grade of C or BIOL A252 with a minimum grade of C or PSY A370 with a minimum grade of C.
Attributes: UAA Integrative Capstone GER.

BIOL A455 Experiential Learning: Bioinformatics **4 Credits**
Explores advanced computational theory and methods for analyses of biological phenomena. Utilizes algorithms and databases used in sequence alignment, sequence searching, metagenomics, phylogenetics, analysis of next-generation sequencing data, protein structures, and molecular pathways. Evaluates genomic approaches for understanding complex biological systems in model organisms and human disease.
Special Note: Not available for credit to students who have completed BIOL A655.
May Be Stacked With: BIOL A655
Prerequisites: BIOL A252 with a minimum grade of C and (MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C) and (STAT A253 with a minimum grade of C or STAT A307 with a minimum grade of C).

BIOL A456 Nonlinear Dynamics and Chaos **3 Credits**
Introduces nonlinear dynamics and chaos. Develops analytical methods and geometric intuition using concrete examples from physics, biology, chemistry, and engineering. Topics covered include phase plane analysis, iterated maps, fractals, and strange attractors.
Registration Restrictions: Completion of GER Tier 1 (basic college-level skills) courses and junior standing
Crosslisted With: CHEM A456 and PHYS A456
Prerequisites: MATH A253 with a minimum grade of C and (PHYS A124 with a minimum grade of C or PHYS A212 with a minimum grade of C).
Attributes: UAA Integrative Capstone GER.

BIOL A458 Behavioral Ecology of Marine Mammals **3 Credits**
Introduces the proximate and ultimate causes of behavioral ecology of marine mammals using an evolutionary approach. Focus on social behavior, animal communication, feeding and anti-predatory behavior, habitat selection, territoriality, reproductive behavior, mating systems, parental care, and adaptations in specific taxa. Methodology, natural and anthropogenic challenges, and marine conservation highlighted throughout.
Prerequisites: BIOL A271 with a minimum grade of C.

BIOL A459 Experiential Learning: Behavioral Ecology of Marine Mammals **2 Credits**
Introduces the theory and practice in field and lab on topics related to marine mammal behavioral ecology with focus on Alaskan species. Students conduct research and present findings in areas such as habitat use, social behavior, group dynamics, foraging ecology, predator avoidance, communication, sensory systems, reproductive behavior, mating systems and parental care. Methodology, natural and anthropogenic challenges, adaptations and marine conservation highlighted.
Prerequisites: BIOL A458 with a minimum grade of C or concurrent enrollment.

BIOL A461 Molecular Biology **3 Credits**
Study of molecular biology, with emphasis on molecular genetics and the molecular biology of eukaryotic cells and cancer cells, including current developments in the field.
May Be Stacked With: BIOL A661
Prerequisites: BIOL A252 with a minimum grade of D.

BIOL A463 Molecular Biology of Cancer **3 Credits**
Studies the molecular biology of cancer. Emphasizes the mechanisms by which a normal cell becomes a malignant cell including the role of chemicals, viruses and other environmental insults in carcinogenesis. Studies the fundamentals of cancer molecular biology and the current literature through a combination of team-based learning (TBL), research, discussions, term papers, and seminars.
Prerequisites: BIOL A252 with a minimum grade of C.

BIOL A465 Experiential Learning: Molecular Biology **4 Credits**
A practical implementation of the theory learned in molecular biology and biotechnology courses, which includes in vitro DNA techniques, gene expression analysis and genomics. Students will also learn experimental design, proposal writing, and oral and written presentation skills.
Special Note: Not available for credit to students who have completed BIOL A665.
May Be Stacked With: BIOL A665
Prerequisites: BIOL A461 with a minimum grade of C or concurrent enrollment or MBIO A251 with a minimum grade of C or concurrent enrollment.

BIOL A467 Wildlife Ecology **3 Credits**
Discusses the history and ecological principles underlying wildlife conservation and management, including key principles of population ecology, methods for estimating population size, survival, and recruitment, and their application to contemporary wildlife conservation and management topics in the face of uncertainty and habitat changes.
Special Note: Not available for credit to students who have completed BIOL A667.
May Be Stacked With: BIOL A667
Prerequisites: BIOL A271 with a minimum grade of C.

BIOL A469 Arctic Environmental Security **3 Credits**
Offers an introduction to a broad array of biological, ecological, political, economic, social and defense security issues that make the present day Arctic a focus of global interest, in the context of global climate change and the end of the Cold War.
Special Note: Not available for credit to students who have completed BIOL A669.
May Be Stacked With: BIOL A669

BIOL A471 Immunology **3 Credits**
Fundamental concepts of immunology including cells and tissues of the immune system, innate immunity, lymphocyte development, antigenicity, cytokine signaling, antibody responses, immunotherapies and vaccines. Discusses comparative immunological evolution of non-human species. Emphasizes immunological aspects of human disease including host-pathogen interactions, autoimmune diseases, immunodeficiencies and cancer.
Crosslisted With: CHEM A471.
Prerequisites: BIOL A242 with a minimum grade of C and BIOL A252 with a minimum grade of C.

BIOL A472 Biogeography **3 Credits**
Ecological basis and historical patterns of the distribution of organisms and ecosystems on a worldwide basis. Examines current theories regarding the origin of these distributions.
Prerequisites: BIOL A288 with a minimum grade of C.

BIOL A473 Conservation Biology **3 Credits**
Examines the human drivers of global environmental change (human population growth and consumption of resources) and the consequences of environmental degradation. Discusses the use of standard protocols and modern instruments to assess environmental change.
Special Note: Service-learning course. Includes fieldwork outside of class time.
Registration Restrictions: Completion of all GER Tier 1 (basic college-level skills) courses
Prerequisites: BIOL A271 with a minimum grade of C or ENVI A211 with a minimum grade of C.
Attributes: UAA Integrative Capstone GER.

BIOL A474 Ecotoxicology **3 Credits**
Examines the chemical and ecological nature of pollution processes and the major classes and environmental fate of pollutants.
Crosslisted With: CHEM A474
Prerequisites: BIOL A271 with a minimum grade of C or CHEM A321 with a minimum grade of C.
Attributes: UAA Integrative Capstone GER.

BIOL A477 Tundra and Taiga Ecosystems **3 Credits**
Analysis of tundra and taiga ecosystems with emphasis on system functions and dynamics. Comparisons with other terrestrial systems will be made and unique characteristics will be emphasized.
May Be Stacked With: BIOL A677
Prerequisites: BIOL A271 with a minimum grade of D.

BIOL A478 Biological Oceanography **3 Credits**
Discusses principles of biological oceanography. Emphasizes biological, chemical and physical processes in the world's oceans. Discusses linkages between biological ocean processes and carbon transport
Special Note: Not available for credit to students who have completed BIOL A678.
Registration Restrictions: Junior or senior standing
May Be Stacked With: BIOL A678

BIOL A481 Marine Biology **3 Credits**
Examines marine biology with a focus on understanding the pathways and transformation of energy and matter in coastal, pelagic and benthic waters, particularly those in Alaska. Studies the influence of the physical environment, climate change and human activities on marine species diversity, food webs, and tropho-dynamics.
Registration Restrictions: Junior or senior standing and completion of all GER Tier 1 (basic college-level skills) courses
Prerequisites: BIOL A242 with a minimum grade of C or BIOL A271 with a minimum grade of C.
Attributes: UAA Integrative Capstone GER.

BIOL A482 Spatial Ecology **3 Credits**
Focuses on spatial patterns, processes, and analyses relevant to ecology and conservation. Uses GIS tools to map and understand patterns in physical and biological properties, such as migration and species distributions, and local, regional, continental, and global patterns of the abiotic environment.
May Be Stacked With: BIOL A682
Prerequisites: BIOL A271 with a minimum grade of C.

BIOL A483 Exploration Ecology **2 Credits**
Explores principles and techniques used for study and collection of baseline ecological data in remote landscapes. Discusses survey and analytical resources and ecological project design.
Special Note: Not available for credit to students who have completed BIOL A683.
Registration Restrictions: Instructor approval
May Be Stacked With: BIOL A683
Prerequisites: BIOL A271 with a minimum grade of C.
Corequisites: BIOL A484.

BIOL A484 Experiential Learning: Exploration Ecology Field Study **4 Credits**
Explores principles and techniques used for study and collection of baseline ecological data in remote landscapes. Applies field survey and analytical resources to ecological project design and implementation.
Special Note: Not available for credit to students who have completed BIOL A684.
Registration Restrictions: Instructor approval
May Be Stacked With: BIOL A684
Corequisites: BIOL A483.

BIOL A486 Evolutionary Ecology **3 Credits**
Explores conceptual issues in the evolution of life histories and species interactions. Includes foundational and contemporary research in topics such as quantitative genetics, natural selection and the evolution of sex.
Prerequisites: BIOL A271 with a minimum grade of C and BIOL A288 with a minimum grade of C.

BIOL A487 Comparative Anatomy of Vertebrates **3 Credits**
Investigates the links between the forms and functions of shared organ systems. Discusses the evolutionary, ecological and physiological implications of shared organ systems.
Prerequisites: BIOL A288 with a minimum grade of C.

BIOL A490 Selected Lecture Topics in Biology **1-3 Credits**
Detailed coverage of a selected lecture topic in biology.
Special Note: May be repeated for a maximum of 12 credits with a change in subtitle. Prerequisites and corequisites may vary with topic.
Registration Restrictions: 16 credits in biology.
May Be Stacked With: BIOL A690

BIOL A491 Experiential Learning: Marine Biology **2 Credits**
Introduces the theory and practice in marine biology lab and field designed to build student knowledge of marine organisms, communities and habitats. Students conduct explorations and research on environmental variables and their affects on organisms in coastal, pelagic and benthic zones.
Prerequisites: BIOL A481 with a minimum grade of C or concurrent enrollment.

BIOL A492 Undergraduate Seminar **1 Credit**
The exploration of current and emerging ideas and findings across the biological sciences, with an emphasis on critique of the primary literature. The course will use readings from the primary literature to illustrate scientific methods, experimental design, and applied statistics in biology. The course will also build and refine student's scientific writing skills, and sharpen analytical thinking and scientific creativity.
Special Note: May be repeated once for credit.
Registration Restrictions: Junior or senior standing.

BIOL A492A Undergraduate Seminar: Semester by the Bay **1 Credit**
Offered in conjunction with KPC's Semester by the Bay program. Introduces the exploration of current and emerging ideas and findings across the biological sciences, with an emphasis on critique of the primary literature. The course will use readings from the primary literature to illustrate scientific methods, experimental design, and applied statistics in biology. The course will also build and refine student's scientific writing and communication skills, sharpen analytical thinking and scientific creativity.
Special Note: Does not meet the BIOL A492 seminar requirement for biological sciences and natural sciences degrees. May be repeated once for credit.

BIOL A495 Instructional Practicum: Laboratory **1 Credit**
Supervised practical experience in a two-hour, three-hour or four-hour biology laboratory or experiential learning course. Planning, presentation of material, achievement testing and correlation with lecture under the direct supervision of department faculty.
Special Note: May be repeated once for credit.
Registration Restrictions: Senior standing and a minimum of 20 credits in biology

BIOL A495A Internship in the Biological Sciences **3 Credits**
Professional work experience in appropriate areas of the biological sciences. Open to qualified students receiving faculty recommendation, and as placements are available.
Special Note: May be repeated three times for credit, but only 3 credits may be applied to elective upper-division credit requirements for the baccalaureate degree in any of the BA or BS degrees offered by the Department of Biological Sciences.
Registration Restrictions: Junior standing with a minimum of 12 credits in biology courses and faculty permission.

BIOL A498 Individual Research **1-6 Credits**
Lab and field investigations on specific subjects in biology. Topic for study to be approved and directed by a faculty member in biological sciences.
Special Note: May be repeated for a maximum of 6 credits.
Registration Restrictions: Faculty permission required.
Prerequisites: BIOL A252 with a minimum grade of D.

BIOL A499 Senior Thesis **3 Credits**
Guides students through the thesis writing process for undergraduate research that meets professional publication standards. Presents thesis in an oral or poster presentation in a science forum.
Special Note: Required for departmental honors in Biology.
Registration Restrictions: Faculty permission required; senior status in Biology or related discipline.

BIOL A601 Experimental Design and Statistics **3 Credits**
Study of the concepts of experimental design and statistics of particular relevance to ecological, environmental, evolutionary and physiological research in biology. Students directly apply the course content to the design and development of their own graduate research proposal as part of the course.
Special Note: Graduate students within the subdisciplines of ecology, physiology and evolutionary ecology are required to take this course during their first year of graduate study.
Registration Restrictions: Graduate standing and permission of instructor.

BIOL A605 Graduate Proseminar in Sciences **2 Credits**
Prepares graduate students in biology and other sciences and focuses on the range of current research methods and the writing, teaching, critical and analytical skills necessary for successful graduate study.
Registration Restrictions: Graduate standing and instructor approval

BIOL A606 Advanced Analysis and Interpretation **3 Credits**
The course will cover advanced analytical techniques applying frequentist and Bayesian approaches. Topics will include applications of meta-analysis, data reduction, data mining, and parametric, non-parametric and descriptive statistics.
Registration Restrictions: Graduate standing, permission of instructor

BIOL A613 Neurophysiology **3 Credits**
Advanced course exploring the relationship between molecules, cells, systems and behavior. Focuses on membrane and electrical properties of neurons, synaptic physiology, human neuropathologies, and sensory and motor system function. Provides opportunities for community outreach in comparative neuroanatomy and neuroscience. Synthesizes knowledge on topics in neuroscience.
Special Note: Not available for credit to students who have completed BIOL A413.
Registration Restrictions: Graduate standing
May Be Stacked With: BIOL A413

BIOL A615 Advanced Comparative Animal Physiology **4 Credits**
An in-depth examination of the physiological adaptations of marine, freshwater, and terrestrial organisms. The comparative approach will be used in order to better understand how animals are uniquely adapted to their physical environment. In addition to meeting all requirements for BIOL A415, graduate students will be required to lead class discussions, research the literature and prepare a research proposal that addresses a current topic in comparative physiology, and to orally present and defend that research proposal to the class as a whole.
Special Note: Students who completed BIOL A415 as part of their undergraduate degree cannot receive credit toward their graduate degree from BIOL A615.
Registration Restrictions: Graduate standing
May Be Stacked With: BIOL A415

BIOL A619 Sleep and Chronobiology **3 Credits**
Examines the advanced presence and physiological basis of biological rhythms and how changes in the different lighting of the seasons, sleep/wake patterns and non-photic cues can impact the biological clock.
Special Note: Not available for credit to students who have completed BIOL A419.
Registration Restrictions: Graduate standing
May Be Stacked With: BIOL A419

BIOL A630 Advanced Marine Mammal Biology **4 Credits**
Advanced study of the biology and ecology of marine mammals, with an emphasis on understanding how marine mammals are adapted to their habitat, and the roles that they play in the aquatic ecosystem.
Special Note: Not available for credit to students who have completed BIOL A430.
Registration Restrictions: Graduate standing
May Be Stacked With: BIOL A430

BIOL A655 Experiential Learning: Advanced Bioinformatics **4 Credits**
Explores advanced computational theory and methods for analysis of biological phenomena. Utilizes algorithms and databases used in sequence alignment, sequence searching, metagenomics, phylogenetics, analysis of next-generation sequencing data, protein structures, and molecular pathways. Evaluates genomic approaches for understanding complex biological systems in model organisms and human disease. Analyzes authentic datasets.
Special Note: Not available for credit to students who have completed BIOL A455.
Registration Restrictions: Graduate standing
May Be Stacked With: BIOL A455

BIOL A661 Advanced Molecular Biology **3 Credits**
Advanced study of molecular biology, with emphasis on molecular genetics and the molecular biology of eukaryotic cells and cancer cells, including current developments in the field.
Special Note: In addition to meeting all requirements for BIOL A461, graduate students will be required to research the literature on a current topic in molecular biology, submit an extensive paper summarizing their findings including designs for future experiments on the subject, and give a seminar on the same topic. Not available for credit to students who have completed BIOL A461.
Registration Restrictions: Graduate standing
May Be Stacked With: BIOL A461
Prerequisites: BIOL A252 with a minimum grade of D.

BIOL A663 Advanced Molecular Biology of Cancer **3 Credits**
A study of the molecular biology of cancer, with emphasis on the mechanisms by which a normal cell becomes a malignant cell, including the role of chemicals, viruses and other environmental insults in carcinogenesis.
Registration Restrictions: Graduate standing
Prerequisites: BIOL A461 with a minimum grade of C.

BIOL A665 Experiential Learning: Advanced Molecular Biology **4 Credits**
A practical implementation of the theory learned in molecular biology and biotechnology courses, which includes in vitro DNA techniques, gene expression analysis and genomics. Students will also learn experimental design, proposal writing, and oral and written presentation skills, along with leading and mentoring of undergraduates in research.
Special Note: Not available for credit to students who have completed BIOL A465.
Registration Restrictions: Graduate standing
May Be Stacked With: BIOL A465
Prerequisites: BIOL A461 with a minimum grade of C or BIOL A661 with a minimum grade of C or concurrent enrollment or MBIO A251 with a minimum grade of C.

BIOL A667 Wildlife Ecology **3 Credits**
Advanced course exploring the history and ecological principles underlying wildlife conservation and management, including key principles of population ecology, methods for estimating population size, survival, and recruitment, and their application to contemporary wildlife conservation and management topics in the face of uncertainty and habitat changes.
Special Note: Not available for credit to students who have completed BIOL A467.
Registration Restrictions: Graduate standing
May Be Stacked With: BIOL A467

BIOL A669 Advanced Arctic Environmental Security **3 Credits**
Offers an introduction to a broad array of biological, ecological, political, economic, social and defense security issues that make the present day Arctic a focus of global interest, in the context of global climate change and the end of the Cold War. Graduate students will complete a publishable manuscript based on the course-based synthesis.

Special Note: Not available for credit to students who have completed BIOL A469.
May Be Stacked With: BIOL A469

BIOL A677 Advanced Tundra and Taiga Ecosystems **3 Credits**
In-depth analysis of tundra and taiga ecosystems with emphasis on system functions and dynamics. Comparisons with other terrestrial systems will be made, and unique characteristics will be emphasized.
Special Note: In addition to meeting all requirements for BIOL A477, graduate students will be required to research the literature on a current topic in tundra and taiga ecosystems, submit an extensive paper summarizing their findings including designs for future experiments on the subject, and give a seminar on the same topic. Not available for credit to students who have completed BIOL A477.
Registration Restrictions: Graduate standing
May Be Stacked With: BIOL A477
Prerequisites: BIOL A271 with a minimum grade of D.

BIOL A678 Advanced Biological Oceanography **4 Credits**
Principles of biological oceanography with an emphasis on biological, chemical and physical processes in the world's oceans and linkages between biological ocean processes and carbon transport. Current literature on ocean processes will be reviewed with an emphasis on emerging areas of study.
Special Note: Not available for credit to students who have completed BIOL A478.
Registration Restrictions: Graduate standing
May Be Stacked With: BIOL A478

BIOL A682 Advanced Spatial Ecology **3 Credits**
Focuses on spatial patterns, processes, and analyses relevant to ecology and conservation. Uses GIS tools to map and understand patterns in physical and biological properties such as migration and species distributions as well as local, regional, continental and global patterns of the abiotic environment. Develops leadership and mentoring skills for undergraduates in discussions of applied spatial ecology.
Registration Restrictions: Graduate standing
May Be Stacked With: BIOL A482

BIOL A683 Advanced Exploration Ecology **2 Credits**
Explores principles and techniques used for study and collection of baseline ecological data in remote landscapes. Discusses survey and analytical resources and ecological project design. Focuses on developing and successfully synthesizing modern ecological field theory. Addresses advanced topics in exploratory research.
Special Note: Not available for credit to students who have completed BIOL A483.
Registration Restrictions: Graduate standing and instructor approval
May Be Stacked With: BIOL A483
Corequisites: BIOL A684.

BIOL A684 Experiential Learning: Advanced Exploration Ecology Field Study **4 Credits**
Explores principles and techniques used for study and collection of baseline ecological data in remote landscapes. Applies field survey and analytical resources to ecological project design and implementation. Addresses advanced topics in field-based exploratory research.
Special Note: Not available for credit to students who have completed BIOL A484.
May Be Stacked With: BIOL A484
Corequisites: BIOL A683.

BIOL A690 Advanced Lecture Topics in Biology **1-3 Credits**
Advanced coverage of a selected lecture topic in biology.
Special Note: May be repeated for a maximum of 12 credits with change in subtitle. May include additional requirements as outlined by the instructor. Not available for credit to students who have completed BIOL A490 having the same subtitle.
Registration Restrictions: Graduate standing
May Be Stacked With: BIOL A490

BIOL A692 Graduate Seminar **1 Credit**
Emphasizes the scientific process and science communication. Familiarizes students with the core principles and frameworks of the biological sciences, and the style, structure, organization and presentation of scientific material and research results. Emphasizes the application of biological concepts to real-world settings through evaluation and analysis of seminar presentations, and develops skills in documenting biological research through oral presentations and peer-reviewed scientific manuscripts.
Special Note: May be repeated for a maximum of 3 credits.
Registration Restrictions: Graduate standing

BIOL A698 Directed Research **1-6 Credits**
Thesis specific research for the MS in Biological Sciences thesis-based option. Topic for study to be approved and directed by a faculty member in the biological sciences.
Special Note: A maximum of 9 credits of BIOL A698 may apply toward the 30 credits required for the MS in Biological Sciences thesis-based option.
Registration Restrictions: Graduate standing and graduate advisor approval

BIOL A698A Non-thesis Capstone Project **1-6 Credits**
Planning, preparation and completion of non-thesis capstone project for the Non-thesis-based MS in Biological Sciences.
Special Note: No more than 6 credits of A698A can count towards the 30 credits required for graduation with non-thesis-based option in MS in Biological Sciences; however, more can be taken.
Registration Restrictions: Graduate standing and graduate advisor approval

BIOL A699 Thesis **1-6 Credits**
Planning, preparation and completion of thesis for the MS in Biological Sciences thesis-based option.
Special Note: A maximum of 3 credits of BIOL A699 may apply toward the 30 credits required for the MS in Biological Sciences thesis-based option.
Registration Restrictions: Graduate standing and graduate advisor approval

Biomedical Program-WWAMI (BIOM)

Courses

BIOM A418 Human Gross Anatomy **3 Credits**
Provides a fundamental working knowledge of normal human gross anatomy and relates anatomy to clinical relevance. Includes dissection laboratory on cadavers.
Special Note: Instructor approval required for registration.
Registration Restrictions: Instructor approval

BIOM A425 Preparing for the MCAT and Beyond **3 Credits**
Introduces students to evidence-based learning practices such as spaced retrieval practice, spaced repetition, interleaving, elaboration, dual-coding, and concrete examples in the context of preparation for the MCAT (Medical College Admission Test), a national standardized exam frequently used in the medical school admissions process to gauge the applicant's readiness for medical school. The course fee includes a 90-day subscription to the UWorld MCAT question bank.
Special Note: May be completed once for credit. Students are expected to have completed or be concurrently enrolled in the following MCAT-relevant science courses: Cell Biology, Genetics, Physics, Organic Chemistry, and Biochemistry.
Registration Restrictions: Instructor approval

BIOM A432 Preparing a Medical School Application **2 Credits**
Focuses on the organization and strategy of presenting oneself throughout all components of the medical school application process. This course will build and refine students' reflective writing and communication skills within the construct of the medical school application.
Registration Restrictions: Instructor approval

BIOM A490 Selected Lecture Topics in Biomedicine **1-3 Credits**
Presents detailed coverage of a selected lecture topic in biomedicine.
Special Note: Not available for credit to students who have completed BIOM A690 with the same subtitle. May be repeated for a maximum of 9 credits with change of subtitle.
Registration Restrictions: Junior or senior standing and faculty permission
May Be Stacked With: BIOM A690

BIOM A618 Clinical Anatomy **4.5 Credits**
Provides an overview of clinical human gross anatomy and integrates knowledge of anatomy and health conditions. Emphasizes critical relationships and clinical significance. Facilitates an understanding of how anatomy aids in effective clinical interventions.
Registration Restrictions: Graduate standing and admission to Creighton Occupational Therapy degree program or instructor approval

BIOM A690 Advanced Selected Topics in Biomedicine **1-3 Credits**
Advanced coverage of a selected topic within biomedicine. Students will analyze and evaluate research and clinical data to formulate diagnoses and future avenues of research within biomedicine.
Special Note: Students enrolled in BIOM A690 will be required to complete additional work and at a higher level than students enrolled in BIOM A490 with the same subtitle. Not available for credit to students who have completed BIOM A490 with the same subtitle. May be repeated for a maximum of 9 credits with change of subtitle.
Registration Restrictions: Graduate standing and faculty permission
May Be Stacked With: BIOM A490

BIOM A692 Graduate Seminar **1 Credit**
Subjects of relevance covered in biomedical research or molecular medicine through the discussion of primary literature selected from top and medium tier journals, and/or attendance at selected professional seminar series offered in the local hospitals.
Special Note: May be repeated for a maximum of 4 credits.
Registration Restrictions: Graduate standing and faculty permission.

Business Administration (BA)

Courses

BA A131 Personal Finance **3 Credits**
Introduction to consumer finance. Surveys topics such as family budgeting, income tax fundamentals, consumer credit, home buying and financing, auto financing, insurance, investment fundamentals, estate planning, and retirement planning.

BA A151 Business Foundations **3 Credits**
Introduces students to key business principles. Explores strategies allowing companies to compete in today's complex global marketplace. Discusses the primary functional areas of business, including management, marketing, finance, accounting, and information systems. Provides students with opportunities to develop essential business skills, such as critical thinking and problem solving.
Attributes: UAA Social Sciences GER.

BA A166 Entrepreneurship and Small Business Management **3 Credits**
Introduces the concepts and practical aspects of entrepreneurial management for starting and operating a small business. Focuses on decision making, management, leadership, marketing, financial controls, and other necessary processes to ensure the successful start-up and long-term health of a business enterprise.

BA A201 Introduction to Alaska Native Business **1 Credit**
Introduces students to the Alaska Native Claims Settlement Act (ANCSA) and Native business organizations. Examines career opportunities within these organizations.
Special Note: It is recommended that students complete a 100-level WRTG course with a minimum grade of C.
Attributes: UAA Alaska Native-Themed GER.

BA A202 Alaska Native Organizations **3 Credits**
Provides an overview of the Alaska Native Claims Settlement Act (ANCSA) and amendments. Introduces Alaska Native-focused organizations, including health organizations, regional corporations, village corporations, Community Development Quota (CDQ) groups, nonprofit economic development organizations, tribes, etc. Includes insights into organizational missions, goal-setting strategies, and management approaches.
Special Note: It is recommended that students complete a 100-level WRTG course with a minimum grade of C before registering for this course.
Attributes: UAA Alaska Native-Themed GER.

BA A215 Introduction to Real Estate Management **3 Credits**
Introduces the management of income-producing properties, including residential, office, retail and industrial spaces. Explores real estate management careers and investor opportunities. Broadly covers practices, including real estate marketing and leasing; conducting market and neighborhood economic analyses; calculating cash flow, return on investment, and capitalization rates; and identifying legal and risk management concerns.
Registration Restrictions: UAA-approved mathematics placement test scores may be used in lieu of prerequisites.
Prerequisites: MATH A054 with a minimum grade of C or MATH A055 with a minimum grade of C or MATH A105 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C.

BA A225 Real Estate Leasing **3 Credits**
Identifies industry best practices for residential and commercial real estate leasing. Connects the management of leasing activities to the performance and value of real estate assets.
Special Note: Successful completion enables students to sit for a national leasing designation exam. It is recommended that students take BA A215 before or concurrently with this course.
Registration Restrictions: UAA-approved mathematics placement test scores may be used in lieu of prerequisites.
Prerequisites: MATH A054 with a minimum grade of C or MATH A055 with a minimum grade of C or MATH A105 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C.

BA A231 Fundamentals of Supervision **3 Credits**
Introduces students to the supervisor's role in organizations. Emphasizes development of the insights and skills necessary to achieve organizational objectives through others by effectively using the managerial functions of planning, organizing, leading, and controlling. Offers practical experience in decision making in contemporary and relevant situations facing today's supervisors.

BA A233 Survey of Finance **3 Credits**
Surveys the discipline of finance. Covers financial markets, financial institutions, financial statements analysis, time value of money, capital budgeting, and methods of short-term and long-term financing.
Prerequisites: (ACCT A101 with a minimum grade of D or ACCT A201 with a minimum grade of D) and (MATH A105 with a minimum grade of D or MATH A121 with a minimum grade of D or MATH A151 with a minimum grade of D or MATH A152 with a minimum grade of D or MATH A155 with a minimum grade of D or MATH A211 with a minimum grade of D or MATH A212 with a minimum grade of D or MATH A221 with a minimum grade of D or MATH A251 with a minimum grade of D or MATH A251F with a minimum grade of D or MATH A252 with a minimum grade of D or MATH A252F with a minimum grade of D or MATH A253 with a minimum grade of D).

BA A241 Business Law I **3 Credits**
Introduces topics such as the American legal system, state and federal courts, alternative dispute resolution, constitutional and government regulation of business, torts, contracts, international law, and business ethics.
Crosslisted With: JUST A241.
Prerequisites: (COMM A111 with a minimum grade of C or COMM A235 with a minimum grade of C or COMM A237 with a minimum grade of C or COMM A241 with a minimum grade of C or COMM A1O with a minimum grade of C or COMM A2O with a minimum grade of C) and (WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C or WRTG A2W with a minimum grade of C).

BA A242 Business Law II **3 Credits**
Covers topics such as law of sales and leases, negotiable instruments, debtor-creditor relations, agency, business organizations, banking, bankruptcy and property protection.
Prerequisites: BA A241 with a minimum grade of D or JUST A241 with a minimum grade of D.

BA A260 Marketing Practices **3 Credits**
Examines the tools, techniques and principles of marketing and how to apply them. Identifies the significance of connecting with customers. Examines and identifies market factors which create the greatest customer satisfaction possible in the highly competitive environments of the 21st century.
Prerequisites: BA A151 with a minimum grade of D.

BA A264 Personal Selling **3 Credits**
Designed for students with or without sales experience. Explores skills all individuals use to sell themselves, goods, services and ideas. Offers opportunities for students to practice selling skills that will help them become better communicators throughout life.

BA A280 Managerial Communications **3 Credits**
Focuses on improving writing, presentation, and teamwork skills within a managerial environment. Emphasizes the development of effective professional business communication strategies based on audience-centric techniques. Provides practical, hands-on exercises with emphasis on collaborative writing and business presentations.
Prerequisites: BADA A110 with a minimum grade of C and (COMM A111 with a minimum grade of C or COMM A241 with a minimum grade of C) and WRTG A212 with a minimum grade of C.

BA A286 Entrepreneurship and Innovation **3 Credits**
Introduces students to the requirements and strategies necessary for starting and developing new ventures. Covers a broad range of topics using class discussion, assigned readings, guest speakers and case analysis. Topics will include, but not be limited to, entrepreneurial thinking, opportunity recognition and assessment, funding and other resource requirements, growth issues, valuation, and managing the business.
Prerequisites: BA A166 with a minimum grade of C.

BA A287 Introduction to International Business **3 Credits**
Examines successes and failures of business and management practices across different cultures. Introduces personal and professional skills that a global manager needs to succeed in an international context.
Prerequisites: WRTG A111 with a minimum grade of C or WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C or WRTG A1W with a minimum grade of C or WRTG A2W with a minimum grade of C.

BA A290A Alaska Native Business Practices **1-3 Credits**
Introductory examination of topics and issues in Alaska Native business practices. Prominent leaders from the Native community are brought into direct classroom contact with students to discuss important business issues in rural Alaska and the larger Native community.
Special Note: Subtitle varies. May be repeated for credit with a different subtitle.
Attributes: UAA Alaska Native-Themed GER.

BA A295 Internship in Business Administration **3 Credits**
Integrates classroom study with planned and supervised work experience in the public and private sectors. Students acquire essential practical skills by being exposed to an occupational work environment beyond the boundaries of the campus, enhancing self-confidence and career direction.
Special Note: May be repeated more than once for credit, but only 3 credits will apply to degree requirements.
Registration Restrictions: Permission of faculty internship coordinator; 2.75 GPA.

BA A300 Organizational Theory and Behavior **3 Credits**
Introduces the field of organizational behavior. Covers the basic elements of how people think, feel and behave in an organization, along with relevant applications to reinforce best practices.
Prerequisites: (COMM A111 with a minimum grade of C or COMM A235 with a minimum grade of C or COMM A237 with a minimum grade of C or COMM A241 with a minimum grade of C or COMM A1O with a minimum grade of C or COMM A2O with a minimum grade of C) and (WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C or WRTG A2W with a minimum grade of C).

BA A302 Real Estate Maintenance and Risk Management **3 Credits**
Illustrates the real estate manager's role overseeing the maintenance requirements and physical risks associated with real estate investments.
Special Note: It is recommended that students take BA A225 before or concurrently with this course.
Prerequisites: BA A215 with a minimum grade of C and (COMM A111 with a minimum grade of C or COMM A235 with a minimum grade of C or COMM A237 with a minimum grade of C or COMM A241 with a minimum grade of C or COMM A1O with a minimum grade of C or COMM A2O with a minimum grade of C) and (WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C or WRTG A2W with a minimum grade of C).

BA A303 Real Estate Investment Finance **3 Credits**
Examines the basics of finance as it applies to real estate investment and asset management. Discusses operating budgets, cash flow pro formas, performance measures and property valuations. Provides students with the tools to calculate revenue and expense management figures such as return on investment (ROI), net operating income (NOI), cash flow and internal rate of return (IRR).
Prerequisites: BA A215 with a minimum grade of C or BA A325 with a minimum grade of C.

BA A306 Real Estate Principles **3 Credits**
Surveys licensee relationships; forms of ownership; property laws, rights, and limitations; forms of conveyances; contracts; financing instruments; Alaska real estate license law and Alaska landlord tenant law; and federal fair housing and RESPA laws.
Special Note: May fulfill pre-license education requirements for the Alaska Real Estate Salesperson License exam. Contact instructor for details.
Prerequisites: (BA A241 with a minimum grade of C or JUST A241 with a minimum grade of C) and ECON A102 with a minimum grade of C and (MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C).

BA A325 Corporate Finance **3 Credits**
Surveys the practice of corporate finance. Covers the time value of money, financial statements analysis, valuation of securities, risk and return, cost of capital, and capital budgeting.
Prerequisites: ECON A227 with a minimum grade of C or STAT A200 with a minimum grade of C.

BA A343 Principles of Marketing **3 Credits**
Examines the present role and evolving scope of marketing in organizations and the global economy. Provides a comprehensive delineation of the key marketing terms, concepts, and decision paradigms; offers an overview of the requisite steps, strategic considerations, and essential elements involved in planning, implementing, and evaluating marketing activities and campaigns.
Prerequisites: (COMM A111 with a minimum grade of C or COMM A235 with a minimum grade of C or COMM A237 with a minimum grade of C or COMM A241 with a minimum grade of C or COMM A1O with a minimum grade of C or COMM A2O with a minimum grade of C) and (WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C or WRTG A2W with a minimum grade of C).

BA A347 International Marketing **3 Credits**
Emphasizes concepts of marketing strategy used to achieve competitive advantage in the global marketplace. Focuses on global consumer insights, market planning, organizing, coordinating and on the controlling functions of international marketing management.
Prerequisites: BA A343 with a minimum grade of C.

BA A361 Human Resource Management **3 Credits**
Covers the sustainable, competitive advantage that organizations can gain through the recruitment, selection, promotion and management of human talent. Examines human resource practices from both a theoretical and a practical lens.
Prerequisites: BA A300 with a minimum grade of C.

BA A375 Statistics for Business and Economics **3 Credits**
Covers intermediate statistics and probability with emphasis on the analysis of business and economic data. Includes multivariate probability models; classic inferences for means, standard deviations, and proportions in one and two populations; analysis of variance; contingency tables; multiple regression; and nonparametric statistics. Statistical computer packages are used extensively.
Prerequisites: ECON A227 with a minimum grade of C and (MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C).

BA A376 Management Information Systems **3 Credits**
Focuses on developing an understanding of the role of Information Systems (IS) to achieve business goals and objectives. Emphasizes developing students' skills to become informed participants in the formation and implementation of IS requirements.
Registration Restrictions: Junior or senior standing and completion of all GER Tier 2 courses
Prerequisites: BADA A110 with a minimum grade of C and (BA A280 with a minimum grade of C or COMM A241 with a minimum grade of C).
Attributes: UAA Integrative Capstone GER.

BA A377 Operations Management **3 Credits**
Introduces management of the operations/production system with an emphasis on quantitative analysis. Covers characteristics of systems, types of production and service systems, forecasting, planning and scheduling work, facility design and location, and selected topics in operations research.
Prerequisites: ECON A227 with a minimum grade of C and (MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C).

BA A380 Investment Management **3 Credits**
Builds up the foundations of investment management. Introduces the environment of investments, utility theory and its linkages to portfolio determination, the single index model, and CAPM.
Prerequisites: BA A325 with a minimum grade of C.

BA A381 Consumer Behavior and Relationship Management **3 Credits**
Examines why consumers behave the way they do. Explores perceptions about consumption behaviors; theories developed in marketing, psychology and sociology; and theories to predict how consumers will respond to marketing actions.
Prerequisites: BA A343 with a minimum grade of C.

BA A383 Market Research: Methods, Metrics and Strategies **3 Credits**
Examines the marketing research function and its role in the managerial decision-making process. Includes an overview of marketing research methods, metrics, and strategies. Includes conducting primary and secondary data collection, analysis of statistical data, and preparing a written and oral research report.
Prerequisites: BA A343 with a minimum grade of C and (BA A375 with a minimum grade of C or BADA A470 with a minimum grade of C or ECON A312 with a minimum grade of C or ECON A329 with a minimum grade of C).

BA A385 Intermediate Financial Management **3 Credits**
Provides an introduction to the process of corporate financial management. Introduces the fundamental theories, concepts, processes, and techniques of financial management. Addresses principles of capital allocation of firms and how value can be created.
Prerequisites: BA A325 with a minimum grade of C.

BA A386 The Startup Venture **3 Credits**
Introduces concepts, theories, and methods of commercializing a validated new business model for a new venture. Includes the venture capital funding process, the players involved in this process, strategies for raising capital, capitalization tables, negotiating tactics, and term sheets.
Prerequisites: BA A166 with a minimum grade of C.

BA A387 International Business Management **3 Credits**
Examines business and management practices in the context of international business operations and diverse cultures. Presents a broad range of professional skills to enable international managers to succeed in a global context.
Prerequisites: BA A300 with a minimum grade of C.

BA A388 Globalization and Business Environment **3 Credits**
Examines the external context in which businesses operate. Includes an assessment of the ethical, legal, political, and social issues that organizations face in a global environment.
Prerequisites: (COMM A111 with a minimum grade of C or COMM A235 with a minimum grade of C or COMM A237 with a minimum grade of C or COMM A241 with a minimum grade of C or COMM A1O with a minimum grade of C or COMM A2O with a minimum grade of C) and (WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C or WRTG A2W with a minimum grade of C).

BA A395 Property Management and Real Estate Internship **1-6 Credits**
Integrates classroom knowledge with supervised work experience in property management and/or a related real estate environment.
Special Note: May be repeated, but only BBA Management majors with a concentration in property management and real estate may apply 6 credits to meeting degree requirements.
Registration Restrictions: Admission to the College of Business and Public Policy, upper-division standing, minimum cumulative GPA of 2.75, minimum GPA of 3.00 in major, and faculty internship coordinator approval
Prerequisites: BA A215 with a minimum grade of C and BA A225 with a minimum grade of C.

BA A401 Alaska Native Corporation Business Management **3 Credits**
Covers the history, development, and management of Alaska Native corporations and their economic and social impact on Alaska. Compares Native and non-Native corporate structures and governance; strategies, goals, and core competencies; management practices and performance; and future challenges.
Prerequisites: BA A202 with a minimum grade of C.
Attributes: UAA Alaska Native-Themed GER.

BA A402 Alaska Native Corporation Leadership **3 Credits**
Explores leadership styles in Alaska Native organizations, including board leadership. Compares and contrasts Alaska Native and Western leadership characteristics. Provides students with opportunities to network with Alaska Native Corporations executives and board members and examine leadership styles.
Prerequisites: BA A202 with a minimum grade of C.
Attributes: UAA Alaska Native-Themed GER.

BA A403 Inside the Boardroom of Alaska Native Organizations **1 Credit**
Examines best practices and the roles and responsibilities of a board of directors. Explores the differences between various types of boards: tribal, Alaska Native corporation, for-profit and nonprofit.
Prerequisites: WRTG A111 with a minimum grade of C or WRTG A1W with a minimum grade of C or WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C or WRTG A2W with a minimum grade of C.
Attributes: UAA Alaska Native-Themed GER.

BA A421 Real Estate Management Capstone **3 Credits**
Evaluates an income-producing real estate asset, including a property description, regional and neighborhood analysis, market analysis, financial analysis, and final conclusions and recommendations.
Special Note: Successful completion prepares students to sit for the following exams: National Apartment Association's Certified Apartment Manager (CAM), Institute of Real Estate Management's Accredited Residential Manager (ARM), Accredited Commercial Manager (ACom), and Certified Property Manager (CPM).
Prerequisites: BA A215 with a minimum grade of C and BA A225 with a minimum grade of C and BA A302 with a minimum grade of C and BA A303 with a minimum grade of C.

BA A426 Financial Institutions **3 Credits**
Studies the functions, structures, delivery systems, efficiencies, risk managements, and performances of financial institutions including banks, savings and loan associations, credit unions, investment companies, pension funds, mutual funds, and endowments.
Prerequisites: BA A325 with a minimum grade of C.

BA A427 International Finance **3 Credits**
Covers foreign exchange determination and forecasting; foreign exchange transaction risks; international cash management and international trade finance.
Prerequisites: BA A325 with a minimum grade of C.

BA A431 Real Estate Appraisal **3 Credits**
Surveys all aspects of the real estate appraisal. Topics cover appraisal process, real estate economics, property inspection, sales comparison approach, cost approach, income approach, reporting appraisal opinion and the professional appraiser.
Prerequisites: ECON A102 with a minimum grade of C and (MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C).

BA A432 Real Estate Law **3 Credits**
Surveys all aspects of the real estate law. Topics covered are legal system; scope of real property; types of ownership; real estate contracts; title and insurance; financing, closing and taxation; landlord and tenants; and environmental law and regulation.
Prerequisites: (BA A241 with a minimum grade of C or JUST A241 with a minimum grade of C or LEGL A101 with a minimum grade of C) and (COMM A111 with a minimum grade of C or COMM A235 with a minimum grade of C or COMM A237 with a minimum grade of C or COMM A241 with a minimum grade of C or COMM A1O with a minimum grade of C or COMM A2O with a minimum grade of C) and (WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C or WRTG A2W with a minimum grade of C).

BA A451 Advanced Investment Strategies **3 Credits**
Examines investment management at an advanced level, covering problems and the process of evaluating a particular stock. Discusses portfolio construction and management. Analyzes performance evaluation using fundamental, technical, and behavioral models and applies these models to the portfolio project.
Prerequisites: BA A380 with a minimum grade of C or BA A491A with a minimum grade of C.

BA A452 Financial Derivatives **3 Credits**
Covers financial derivatives. Examines futures, forwards, and options.
Prerequisites: BA A325 with a minimum grade of C.

BA A453 Bond Market Analysis **3 Credits**
Studies investment management, including fixed-income securities at an advanced level. Examines bond fundamentals, types of debt instruments, term structure of interest rates, interest rate risks and their management, bond portfolio management, indexing, and performance evaluation.
Prerequisites: BA A325 with a minimum grade of C.

BA A460 Marketing Management **3 Credits**
Simulates the development and management of a business as a member of a senior marketing team. Illustrates marketing management's role in formulating and executing strategy, and interdependency with the other functional domains of business. Students will execute and test a business plan within a computer-simulated market and compete against each other.
Prerequisites: BA A343 with a minimum grade of C.

BA A461 Negotiation and Conflict Management **3 Credits**
Provides students with a forum to develop and practice negotiation skills and offers opportunities to make positive changes in negotiation behavior and habits.
Prerequisites: (COMM A111 with a minimum grade of C or COMM A235 with a minimum grade of C or COMM A237 with a minimum grade of C or COMM A241 with a minimum grade of C or COMM A1O with a minimum grade of C or COMM A2O with a minimum grade of C) and (WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C or WRTG A2W with a minimum grade of C).

BA A462 Strategic Management **3 Credits**
Evaluates the external and internal market environments to formulate a strategic plan that achieves above-average returns. Analyzes theory, current events, company and industry analysis, and case studies to prepare students to understand, evaluate, and carry out strategic decisions in the global marketplace. Serves as the degree capstone for management, marketing, logistics, and finance majors.
Prerequisites: BA A300 with a minimum grade of C and BA A325 with a minimum grade of C and BA A343 with a minimum grade of C.

BA A470 Becoming a Leader **3 Credits**
Provides an introduction to effective leadership. Topics such as the nature of leadership, recognizing leadership traits, developing leadership skills, overcoming obstacles, and addressing values in leadership will be examined. Attention will be given to helping students understand and improve their own leadership performance.
Registration Restrictions: College of Business and Public Policy majors must be admitted to upper-division standing.
Prerequisites: BA A300 with a minimum grade of C.

BA A480 Marketing Media Analytics **3 Credits**
Introduces students to the field of marketing media analytics. Examines marketing media analytics to understand how a business tracks the data specific to their use of social media, how and when to share information, what types of content drives the consumer, and how marketing impacts business.
May Be Stacked With: BA A680
Prerequisites: BA A343 with a minimum grade of C.

BA A481 Applications in Management **3 Credits**
Builds on topics introduced in the prerequisite course and provide insight and a foundation for successful management and leadership. Focuses on understanding how individuals think, feel, and behave in an organization.
Prerequisites: BA A300 with a minimum grade of C.

BA A482 Integrated Marketing Communications **3 Credits**
Examines the principles and practices of marketing communications, involving tools used by marketers to inform consumers and to provide a managerial framework for integrated marketing communications planning.
Special Note: Not available for credit to students who have completed BA A682.
May Be Stacked With: BA A682
Prerequisites: BA A343 with a minimum grade of C.

BA A485 International Business Applications **3 Credits**
Examines in-depth, hands-on international business issues. Requires students to develop international business skills through field experiences and interactions with faculty and practicing managers.
Prerequisites: BA A347 with a minimum grade of C or BA A387 with a minimum grade of C or BA A388 with a minimum grade of C or BA A427 with a minimum grade of C or LOG A416 with a minimum grade of C.

BA A489 From Startup to Growth **3 Credits**
Learn how to launch a new startup, grow a small business, or lead and manage innovative business ventures within an established organization. Acquire hands-on entrepreneurial experience through applying course concepts to projects and presenting investor pitches to community leaders and entrepreneurs.
Prerequisites: BA A386 with a minimum grade of C or BA A462 with a minimum grade of C.

BA A490A Current Topics in Business **1-6 Credits**
Explores current issues, techniques, and trends affecting business.
Special Note: May be repeated for credit with a change of subtitle up to a maximum of 6 credits.
May Be Stacked With: BA A690

BA A490B Selected Topics in Alaska Native Corporations **1-3 Credits**
Explores advanced topics in Alaska Native corporations with prominent leaders from the Alaska Native corporations and business communities.
Special Note: May be repeated for credit with change of subtitle.
Prerequisites: WRTG A111 with a minimum grade of C or WRTG A1W with a minimum grade of C or WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C or WRTG A2W with a minimum grade of C.
Attributes: UAA Alaska Native-Themed GER.

BA A491A Student Managed Portfolio **3 Credits**
Focuses on security analysis and investment in an institutional investor framework. Provides students an opportunity to conduct security analysis, present findings to the investment committee, and conduct investment decisions in a real Student Investment Fund portfolio. Covers how to rebalance the portfolio, conduct performance analysis, and generate general investment reports.
Prerequisites: BA A325 with a minimum grade of C.

BA A495 Advanced Internship in Business Administration **3 Credits**
Integrates classroom study with planned and supervised work experience in the public and private sectors. Students acquire essential practical skills by being exposed to occupational work environment beyond the boundaries of the campus, enhancing self-confidence and career direction. Students are expected to perform duties commensurate with entry-level management positions.
Special Note: May be repeated more than once for credit, but only 3 credits will apply to meeting business majors' degree requirements.
Registration Restrictions: Permission of the BA faculty internship coordinator; 2.75 GPA overall; 3.00 GPA in major.

BA A603 Fundamentals of Finance **3 Credits**
Surveys the practice of corporate finance. Topics covered include time value of money, financial statements analysis, valuation of securities, capital budgeting, risk and return, and cost of capital.
Special Note: This is a foundational course for MBA students who have not taken any course in finance at the baccalaureate level. Does not count toward MBA degree.
Registration Restrictions: Graduate standing

BA A608 Artificial Intelligence with Business Applications **3 Credits**
Demonstrates how Artificial Intelligence (AI) is reshaping the future and revolutionizing business. Explains key AI technologies, including neural networks, deep learning, machine learning and robotics. Describes how leadership uses AI to transform organizations into innovative, efficient and sustainable ones. Discusses implications of AI on cyber security, ethical, and economic issues.
Registration Restrictions: Graduate standing or department approval

BA A610 Business Intelligence and Analytics **3 Credits**
Covers data identification, collection, and analysis, and presentation of results. Uses basic statistical tools and models for problem analysis and data-driven decision-making that are presented from the perspective of a manager. Emphasizes the appropriate selection, use and interpretation of statistical analysis for business decision making. Uses computer software to analyze business datasets.
Registration Restrictions: Graduate standing and an instructor-approved statistics course with a minimum grade of C or equivalent undergraduate preparation

BA A621 Change Leadership and Facilitation **3 Credits**
Covers effective and successful approaches to change in complex organizations. Develops students' capabilities to lead change at individual, group and organizational levels. Analyzes situations that drive change in organizations and the application of theories and concepts for successful, sustainable implementation of change.
Registration Restrictions: Graduate standing

BA A627 Leadership in the Multicultural Organization **3 Credits**
Examines leadership theories and concepts to understand how culture fits in a changing business world, how to gain a competitive advantage from effective cross-cultural management, and practicalities for doing business in an era of globalization. Explores factors, conditions, and practices for business success to understand, communicate, and lead across cultures.
Registration Restrictions: Graduate standing

BA A628 Executive Leadership **3 Credits**
Students synthesize leadership theories, practices and self-assessments so that they better understand challenges leaders face in organizations. Students are provided with opportunities to interact and network with top executives from the local business community. Executives share their leadership styles, knowledge and practical applications of theories.

Registration Restrictions: Graduate standing and admission to the Master of Business Administration in General Management or instructor approval

BA A632 Leadership and Organizational Behavior **3 Credits**
Enable students to become effective and successful leaders and followers in organizations. Students develop an understanding of the dynamics of human behavior and acquire skills for motivating oneself, peers and subordinates. Topics include leading teams, building relationships and communicating across groups.
Registration Restrictions: Graduate standing

BA A633 Problem Formulation and Decision Analysis **3 Credits**
Identifies and formulates business problems with alternative approaches to modeling and analysis. Collects data and utilizes appropriate software tools for optimization, forecasting, and simulation of business processes. Focuses on formal quantitative modeling with strong recognition of the behavioral and political contexts of decision making in complex organizations.
Registration Restrictions: Graduate standing and an instructor-approved statistics course with a minimum grade of C or equivalent undergraduate preparation
Prerequisites: ECON A602.

BA A635 Current Marketing Issues Seminar **3 Credits**
Explores the origin, nature, and ramifications of current issues in marketing that are redefining the role and scope of applied marketing management practices in contemporary organizations. Discusses the major ongoing socio-cultural and technological issues and trends impacting marketing research, competitive strategies, product/service design, pricing, promotion, and distribution.
Registration Restrictions: Graduate standing

BA A636 Financial Decision Making **3 Credits**
Advanced course in financial decision making presenting analytical techniques and concepts. Includes risk and return relationships, capital asset pricing model (CAPM) and Markowitz diversification, free cash flow and corporate valuation, options, and working capital management.
Registration Restrictions: Graduate standing
Prerequisites: BA A603.

BA A648 Business Intelligence and Data Mining **3 Credits**
Covers essential business intelligence and data mining techniques, including statistical and machine-learning methods. Uses a software environment to illustrate the tasks of classification, prediction, and pattern discovery, which have become key elements of a business analytics function in most large organizations.
Registration Restrictions: Graduate Standing and an instructor-approved statistics course with a minimum grade of C or equivalent undergraduate preparation

BA A649 Advanced Business Data Analysis **3 Credits**
Analyze business data using popular statistical methods including ANOVA, ANCOVA, regression and logistical regression. Emphasizes the appropriate selection and use of statistical analysis methods based on variation pattern of observed business data. Present analysis results in an appropriate way for business decision making purposes. Statistical software package of SAS is intensively used to build statistical models for business data. This course will prepare students for the SAS certification exam for Statistical Business Analyst.
Registration Restrictions: Graduate standing
Prerequisites: BA A610.

BA A655 Strategic Management Seminar **3 Credits**
Analysis of the strategic environment; formulation and implementation of strategy. Role of top management and other stakeholders in setting the organization's fundamental direction. Structure and control system design for strategic support.
Registration Restrictions: Graduate standing.
Prerequisites: BA A632 and BA A635 and BA A636.

BA A656 Management Project **3 Credits**
Management research project designed to integrate policy concepts, research methods, and practical problem solving techniques.
Registration Restrictions: Graduate standing and completion of MBA core courses

BA A671 Introduction to Entrepreneurship **3 Credits**
Covers personal qualities of successful entrepreneurs, information required to start a new business venture, and ways to present and analyze the unique business problems that face entrepreneurs in starting and operating a new venture.
Registration Restrictions: Graduate standing

BA A680 Marketing Media Analytics **3 Credits**
Provides strategic knowledge and insights into the field of marketing media analytics. Assess, interpret and apply marketing media analytics to understand how a business tracks the data specific to their use of social media, how and when to share information, what types of content drives the consumer, and the impact of marketing on the business.
Special Note: Not available for credit to students who have completed BA A480.
Registration Restrictions: Graduate standing
May Be Stacked With: BA A480

BA A681 Portfolio and Security Analysis **3 Credits**
Introduces students to a variety of advanced investment strategies in modern financial markets. Covers the fundamentals of stock and bond valuations and derivative markets (options and futures). Teaches how to manage investment portfolios and measure the riskiness of stocks or a portfolio position. Highlights common risk factors behind investment strategies and portfolio evaluation methodologies.
Registration Restrictions: Graduate standing
Prerequisites: ACCT A601 with a minimum grade of C and BA A603 with a minimum grade of C.

BA A682 Integrated Marketing Communications **3 Credits**
Analyzes the principles and practices of marketing communications, involving tools used by marketers to inform consumers and to provide a managerial framework for integrated marketing communications planning.
Special Note: Not available for credit to students who have completed BA A482.
Registration Restrictions: Graduate standing
May Be Stacked With: BA A482

BA A686 Management Simulation **3 Credits**
Students experience running a business as a member of a senior management team. Teams select competitive strategies, execute them within a simulated online decision-making framework, and examine how a firm's production, marketing, R&D, HR and financial operations interact with one another in a competitive market. Teams compete simultaneously with fellow classmates and student teams from universities around the world.
Registration Restrictions: Graduate standing and completion of undergraduate or graduate course in finance and accounting.

BA A690 Advanced Topics in Business **1-6 Credits**
Examines current issues, techniques, and trends affecting business and applies advanced theories to analyze and solve business problems.
Special Note: May be repeated for credit with a change in subtitle up to a maximum of 6 credits.
Registration Restrictions: Faculty permission and graduate standing.
May Be Stacked With: BA A490A

BA A698 MBA Individual Research **3 Credits**
Independent primary research project conducted under the supervision of a faculty advisor.
Registration Restrictions: Graduate standing and completion of MBA core courses

Business & Data Analytics (BADA)

Courses

BADA A105 Introduction to Personal Computers and Application Software **3 Credits**
Develops computer literacy by emphasizing basic hands-on use of personal computers, operating systems, and application software to include word processing, spreadsheets, databases, presentation graphics, and the Internet.
Registration Restrictions: Keyboarding skill of 30 wpm or better is recommended

BADA A110 Computer Concepts in Business **3 Credits**
Employs popular productivity software, operating system software, and computer hardware from a business perspective. Examines personal computer software packages, the information processing cycle, and beginning programming concepts. Emphasizes solving business problems utilizing spreadsheet and database software applications.
Special Note: Recommended: MATH A105 and (BADA A105 or familiarity with personal computers, basic software applications and keyboarding of at least 30 wpm).

BADA A210 Introduction to Programming for Business Analytics **3 Credits**
Provides students with a solid foundation in programming fundamentals and computational thinking concepts, emphasizing the application of these skills to address business-related problems and extract valuable insights from data. Introduces students to widely-used programming languages and tools in the field of business analytics.
Registration Restrictions: If prerequisite is not satisfied, approved UAA mathematics placement test score and current programming experience are required.
Prerequisites: BADA A110 with a minimum grade of C and (MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A211 with a minimum grade of C or MATH A212 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C).

BADA A250 Basic Web Page Development for Business Applications **3 Credits**
Focuses on fundamentals of designing and developing web pages for business applications using the most recent versions of Hypertext Markup Language (HTML) and Cascading Style Sheets (CSS). Includes concepts related to best practices for managing design processes, selecting service providers, prototyping, testing and accessibility compliance.
Special Note: Students may apply no more than 3 credits from BADA A250 or BADA A350 toward graduation requirements.
May Be Stacked With: BADA A350

BADA A295 Computer Programming Internship **1-6 Credits**
Provides computer programming and/or end-user support work to include maintenance of information systems equipment and/or networks, and software experience in a faculty-approved position.
Special Note: Requires 75 hours of work experience for each credit. Maximum of 3 internship credits may be used to meet major requirements.
Registration Restrictions: Department approval required. Students must be in good standing in the College of Business and Public Policy. Cumulative GPA of 2.75 or higher.
Prerequisites: BADA A210 with a minimum grade of C.

BADA A310 Systems Analysis and Design **3 Credits**
Provides students with the opportunity to achieve a high level of practical understanding of the system development methodologies, with a focus on agile and adaptive incremental methodologies. Examines techniques for managing and evolving software systems, including project planning from requirements gathering to analysis, estimation, and release, with a hands-on approach to implementing agile methodologies.
Prerequisites: BA A280 with a minimum grade of C and BADA A210 with a minimum grade of C.

BADA A330 Database Systems **3 Credits**
Covers principles and concepts of database systems, including query languages, relational databases, data warehouses, data marts, data lakes, NoSQL databases, online transaction processing systems, and online analytical processing systems.
Prerequisites: BADA A110 with a minimum grade of C.

BADA A345 Managing Data Communications and Computer Networks **3 Credits**
Introduces the rapidly changing environment of data communications over local area networks and over switched and private voice lines. Focuses on the control and management of data in a distributed environment, the technology issues associated with data communications, and current trends in the industry.
Prerequisites: BADA A110 with a minimum grade of C.

BADA A350 Advanced Web Page Development for Business Applications **3 Credits**
Focuses on advanced features of designing and developing web pages for business applications using the most recent versions of Hypertext Markup Language (HTML) and Cascading Style Sheets (CSS). Includes concepts related to best practices for managing design processes, selecting service providers, prototyping, testing and accessibility compliance. Also includes basic client-side programming for web pages using current scripting techniques such as JavaScript and jQuery.
Special Note: Students may apply no more than 3 credits from BADA A250 or BADA A350 toward graduation requirements.
May Be Stacked With: BADA A250
Prerequisites: BADA A210 with a minimum grade of C or CS A109 with a minimum grade of C or CSCE A201 with a minimum grade of C or CSE A205 with a minimum grade of C.

BADA A361 Advanced Contemporary Business Applications Development **3 Credits**
Develops business applications using contemporary technologies and programming languages at an advanced level. Designs user interfaces and integrates them with other platforms such as spreadsheets and databases.
Prerequisites: BADA A210 with a minimum grade of C.

BADA A370 Data Mining and Machine Learning **3 Credits**
Provides an introduction to the field of data mining and machine learning. Focuses on the concepts, algorithms, and techniques used for discovering patterns in large datasets and building predictive models.
Prerequisites: BADA A210 with a minimum grade of C.

BADA A390 Selected Topics in Management Information Systems **1-6 Credits**
Study of specific current issues, techniques, and trends in Management Information Systems (MIS).
Special Note: May be repeated for a maximum of 9 credits with a change of subtitle. Maximum of 9 elective credits may be used for the Bachelor of Business Administration in Management Information Systems.
Prerequisites: BADA A210 with a minimum grade of C.

BADA A395 Programmer/Analyst Internship **3 Credits**
Provides computer programmer/analyst work experience in a faculty approved position.
Special Note: Requires 225 hours of work experience. Maximum of 3 internship credits may be used to meet major requirements.
Registration Restrictions: Admission to the College of Business and Public Policy, department approval, and good standing in the College of Business and Public Policy with cumulative GPA of 2.75 or higher
Prerequisites: BADA A210 with a minimum grade of C.

BADA A410 Project Management **3 Credits**
Covers essentials of planning, scheduling, and managing information system projects; risk assessment and risk management; and project management tools. Involves students in the development of a project plan for a community-based information system development project.
Prerequisites: BADA A310 with a minimum grade of C.

BADA A412 Ethics and Privacy Issues in AI, Big Data and Business Analytics **3 Credits**
Provides an overview of fundamental concepts and principles of big data, artificial intelligence (AI), and data security, which are necessary to explore and understand ethical and privacy issues in business analytics.
Corequisites: BADA A370.

BADA A430 Client-Server Programming for Business Applications **3 Credits**
Covers basic client-server system concepts and business application development using client-server development tools. Students will write advanced business application programs using client-server design and development tools with programming languages in order to interface with Database Management System (DBMS) software for interactive processing. Emphasizes application development, program design, program testing, and certification in the client-server environment.
Prerequisites: BA A376 with a minimum grade of C and BADA A210 with a minimum grade of C and BADA A330 with a minimum grade of C.

BADA A445 Advanced Network Management **3 Credits**
Provides practical knowledge about the installation, configuration, administration, and operation of networks in local area and wide area settings. The operation and interconnectivity between commercially available software will be explored as well as the utilization of different communication protocols on the same network.
Registration Restrictions: Admission to the College of Business and Public Policy
Prerequisites: BADA A345 with a minimum grade of D.

BADA A460 Web Development in the .Net Environment **3 Credits**
Development of data-driven web applications within the .Net environment. Uses ASP.Net and C# as the development environment.
Special Note: Assumes previous programming experience with HTML and CSS.
Prerequisites: BA A376 with a minimum grade of C and BADA A210 with a minimum grade of C and (BADA A250 with a minimum grade of C or BADA A350 with a minimum grade of C or JPC A345 with a minimum grade of C).

BADA A470 Business Analytics, Data Science, and Machine Learning **3 Credits**
Introduces database techniques, data visualization, machine learning (ML) methods, and other business intelligence (BI) topics. Engages students with practical experience using contemporary BI tools and technologies and emphasizes the application of sound design principles to create intelligent solutions for realistic business problems.
Special Note: Not available for credit to students who have completed BADA A670.
May Be Stacked With: BADA A670
Prerequisites: ECON A227 with a minimum grade of C or STAT A200 with a minimum grade of C.

BADA A487 Business Analytics Senior Project **3 Credits**
Provides an in-depth, hands-on experience involving all the aspects of a realistic analytics business project. Gives students the opportunity to work in teams as consultants on projects of interest to industry partners, going through industry-standard workflows.
Registration Restrictions: Senior standing and admission to the College of Business and Public Policy
Prerequisites: BADA A310 with a minimum grade of C and BADA A330 with a minimum grade of C and BADA A370 with a minimum grade of C and BADA A410 with a minimum grade of C.

BADA A489 Systems Design, Development and Implementation **3 Credits**
Engages students in the design, development and implementation of an information system project. Students working in small teams integrate and apply MIS concepts and skills, conduct independent research, develop an implementable system for a community organization, and present written and oral reports.
Prerequisites: BA A376 with a minimum grade of C and BADA A410 with a minimum grade of C and (BADA A430 with a minimum grade of C or BADA A460 with a minimum grade of C).

BADA A490 Advanced Topics in Management Information Systems **3 Credits**
Study of advanced current issues, techniques and trends in management information systems (MIS). Students will be required to conduct research.
Special Note: May be repeated twice with a change of subtitle/topic. Maximum of 9 elective credits may be used for the BBA in Management Information Systems degree. Check course schedule for specific titles being offered.
Prerequisites: BADA A210 with a minimum grade of C.

BADA A495 Systems Analyst/User Support Internship **3 Credits**
Provides systems analyst or user-support work experience in a faculty approved position.
Special Note: Requires 75 hours of work experience for each credit. May be repeated once for credit. A maximum of 3 internship credits may be used to meet major requirements.
Registration Restrictions: Admission to the College of Business and Public Policy, department approval, and good standing in the College of Business and Public Policy with cumulative GPA of 2.75 or higher
Prerequisites: BA A376 with a minimum grade of C and BADA A210 with a minimum grade of C.

BADA A498 Individual Research Project **1-6 Credits**
In a simulated professional environment, students complete an MIS project, prepare a project report, and make a managerial presentation.
Special Note: May be repeated for a maximum of 6 credits. A maximum of 3 credits may be used to meet degree requirements.
Prerequisites: BA A376 with a minimum grade of C and BADA A361 with a minimum grade of C.

BADA A670 Advanced Business Analytics, Data Science, and Machine Learning **3 Credits**
Provides strategic knowledge and insight into database techniques, data warehousing, online analytical processing (OLAP), data mining, data visualization, machine learning (ML) methods, and other business intelligence (BI) topics. Students gain practical experience using contemporary BI tools and technologies, and apply sound design principles for creating intelligent solutions to realistic business problems.
Registration Restrictions: Graduate standing
May Be Stacked With: BADA A470
Prerequisites: BA A610 with a minimum grade of B.

Chemistry (CHEM)

Courses

CHEM A054 Chemistry Skills and Problem Solving **3 Credits**
A preparatory chemistry course for students without high school chemistry or with limited mathematics background. Develops foundational problem-solving skills using basic models of chemistry. CHEM A054 is the preparatory course for CHEM A103 and CHEM A105.
Prerequisites: MATH A105 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A211 with a minimum grade of C or MATH A212 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C or ALEKS Overall Test 1 with a score of 055 or ALEKS Overall Test 2 with a score of 055 or ALEKS Overall Test 3 with a score of 055 or ALEKS Overall Test 4 with a score of 055 or ALEKS Overall Test 5 with a score of 055.

CHEM A103 Introduction to General Chemistry **3 Credits**
Introductory chemistry survey course for health science majors and preparatory course for science majors. Topics include: measurement, energy and matter, periodic trends, chemical composition, chemical reactions, solutions, bond theory, phases, oxidation-reduction, nuclear chemistry, problem-solving (applied mathematics), and special topics.
Special Note: This course assumes prior knowledge of algebra and high school chemistry.
Prerequisites: CHEM A054 with a minimum grade of P or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or ALEKS Overall Test 1 with a score of 065 or ALEKS Overall Test 2 with a score of 065 or ALEKS Overall Test 3 with a score of 065 or ALEKS Overall Test 4 with a score of 065 or ALEKS Overall Test 5 with a score of 065.
Attributes: UAA Natural Sciences GER.

CHEM A103L Introduction to General Chemistry Laboratory **1 Credit**
Introductory chemistry laboratory course with experiments designed to introduce students to the basics of laboratory equipment, experimental methodology, data collection, data analysis and reporting. This course illustrates, augments and applies concepts covered in CHEM A103.
Special Note: Students who do not meet the prerequisites for this course may be administratively dropped at the discretion of the faculty. Attendance is mandatory for all chemistry laboratory courses the first week of class. Unless prior arrangements are made with the instructor, any student who does not attend the first scheduled meeting for this lab may be administratively dropped and a student on a waiting list will be added in their place. Any fees resulting from either of these drop procedures or any late registration procedure will be the responsibility of the student.
Prerequisites: CHEM A103 with a minimum grade of C or concurrent enrollment.
Attributes: UAA Natural Sci Lab Only GER.

CHEM A104 Introduction to Organic and Biochemistry **3 Credits**
This is the second semester course in the sequence for health science majors and comprises a survey of the fundamentals of chemistry as applied to biological systems. Topics include: nomenclature of organic compounds, organic functional groups and reactions, biochemical processes and pathways, biological macromolecules, and metabolites.
Special Note: CHEM A104L is the lab component of this course and requires a separate registration.
Prerequisites: CHEM A103 with a minimum grade of C or CHEM A105 with a minimum grade of C.
Attributes: UAA Natural Sciences GER.

CHEM A104L Introduction to Organic and Biochemistry Laboratory **1 Credit**
Second semester introductory chemistry laboratory course with experiments designed to reinforce concepts, including the basics of laboratory equipment, experimental methodology, data collection, data analysis and reporting. This course illustrates, augments and applies concepts covered in CHEM A104.
Special Note: Students who do not meet the prerequisites for this course may be administratively dropped at the discretion of the faculty. Attendance is mandatory for all chemistry laboratory courses the first week of class. Unless prior arrangements are made with the instructor, any student who does not attend the first scheduled meeting for this lab may be administratively dropped and a student on a waiting list will be added in their place. Any fees resulting from either of these drop procedures or any late registration procedure will be the responsibility of the student. Pregnant students should be aware that they will be using chemicals in this course that are teratogenic and may cause harm to unborn children.
Prerequisites: CHEM A103L with a minimum grade of C and CHEM A104 with a minimum grade of C or concurrent enrollment.
Attributes: UAA Natural Sci Lab Only GER.

CHEM A105 General Chemistry I **3 Credits**
Introduces general chemistry and explores topics to a much greater depth than preparatory courses. Topics include: measurement, energy and matter, periodic trends, chemical composition, chemical reactions, solutions, bond theory, gases, thermodynamics, problem-solving (applied mathematics) and special topics.
Special Note: Assumes prior knowledge of algebra and high school chemistry. CHEM A105L is the lab component of this course and requires a separate registration.
Prerequisites: CHEM A054 with a minimum grade of P or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or ALEKS Overall Test 1 with a score of 065 or ALEKS Overall Test 2 with a score of 065 or ALEKS Overall Test 3 with a score of 065 or ALEKS Overall Test 4 with a score of 065 or ALEKS Overall Test 5 with a score of 065.
Attributes: UAA Natural Sciences GER.

CHEM A105L General Chemistry I Laboratory **1 Credit**
Introductory chemistry laboratory course with experiments designed to introduce students to the basics of laboratory equipment, experimental methodology, data collection, data analysis and reporting. This course illustrates, augments and applies concepts covered in CHEM A105.
Special Note: Students who do not meet the prerequisites for this course may be administratively dropped at the discretion of the faculty. Attendance is mandatory for all chemistry laboratory courses the first week of class. Unless prior arrangements are made with the instructor, any student who does not attend the first scheduled meeting for this lab may be administratively dropped and a student on a waiting list will be added in their place. Any fees resulting from either of these drop procedures or any late registration procedure will be the responsibility of the student.
Prerequisites: CHEM A105 with a minimum grade of C or concurrent enrollment.
Attributes: UAA Natural Sci Lab Only GER.

CHEM A106 General Chemistry II **3 Credits**
The second semester in the general chemistry sequence. Topics include: kinetics, equilibrium chemistry (including acids and bases, solubility, and complex ion formation), nuclear chemistry, electrochemistry, thermodynamics and special topics.
Special Note: CHEM A106L is the laboratory component of this course and requires a separate registration.
Prerequisites: CHEM A105 with a minimum grade of C.
Attributes: UAA Natural Sciences GER.

CHEM A106L General Chemistry II Laboratory **1 Credit**
Second semester introductory chemistry laboratory course with experiments designed to reinforce concepts, including the basics of laboratory equipment, experimental methodology, data collection, data analysis and reporting. This course illustrates, augments and applies concepts covered in CHEM A106.
Special Note: Students who do not meet the prerequisites for this course may be administratively dropped at the discretion of the faculty. Attendance is mandatory for all chemistry laboratory courses the first week of class. Unless prior arrangements are made with the instructor, any student who does not attend the first scheduled meeting for this lab may be administratively dropped and a student on a waiting list will be added in their place. Any fees resulting from either of these drop procedures or any late registration procedure will be the responsibility of the student.
Prerequisites: CHEM A105L with a minimum grade of C and CHEM A106 with a minimum grade of C or concurrent enrollment.
Attributes: UAA Natural Sci Lab Only GER.

CHEM A208 Principles of Bioinorganic Chemistry **3 Credits**
Study of introductory inorganic chemistry concepts with a focus on biologically-active, organometallic compounds.
Prerequisites: CHEM A106 with a minimum grade of C.

CHEM A218 Experiential Learning: Quantitative Chemical Analysis **5 Credits**
Introduces the foundational methods and theories associated with quantitative analysis of chemical substances. Learning activities present students with conceptual and chemical models followed by questions to guide them through the learning cycle of structured scientific evaluation of analytical data. Introduces the fundamentals of quantitative chemical analysis, including the basics of experimental design, analytical controls, statistical methods of data analysis, data presentation, and how to discriminate between sound and unsound data. Activities promote independent operations of solution preparation, titration, spectrophotometry and chromatography.
Special Note: Pregnant students should be aware that they will be using chemicals in this course that are teratogenic and may cause harm to unborn children.
Prerequisites: CHEM A106 with a minimum grade of C and CHEM A106L with a minimum grade of C.

CHEM A253 Principles of Inorganic Chemistry **3 Credits**
Study of theoretical and practical aspects of chemical bonding, descriptive periodic trends, and molecular structure and symmetry of molecules. A special emphasis is given to the chemistry of the transition metals, including coordination and organometallic chemistry.
Prerequisites: CHEM A106 with a minimum grade of C.

CHEM A312 Quantitative Analysis **5 Credits**
General principles of chemical analysis, including introduction to volumetric, gravimetric and instrumental methods, theory, problems, and laboratory.
Special Note: Pregnant students should be aware that they will be using chemicals in this course that are teratogenic and may cause harm to unborn children.
Prerequisites: CHEM A106 with a minimum grade of C and CHEM A106L with a minimum grade of C.

CHEM A321 Organic Chemistry I **3 Credits**
Investigates the chemistry of carbon compounds including alkanes, alkenes, alkynes, alkyl halides, and arenes. Discusses physical properties, nomenclature, synthesis, reactions, reaction mechanisms, and stereochemistry of these compounds.
Prerequisites: CHEM A106 with a minimum grade of C.

CHEM A322 Organic Chemistry II **3 Credits**
Continuation of CHEM A321. Includes the study of spectroscopic properties, delocalized electron systems, aromatic reactions, carbonyl compound reactions and amines. Emphasizes nomenclature, physical properties, synthetic methods and reaction mechanisms.
Special Note: It is strongly recommended that students register in CHEM A322 within one year of completing CHEM A321.
Prerequisites: CHEM A321 with a minimum grade of C.

CHEM A323L Organic Chemistry Laboratory **2 Credits**
A practical implementation of the theory learned in CHEM A321 and A322. Purification techniques, spectroscopic methods and synthetic methods of organic compounds will be taught.
Special Note: It is strongly recommended that students who wish to co-register in CHEM A322 and CHEM A323L complete CHEM A321 with a minimum grade of B. Students who complete CHEM A321 with a grade of C are strongly recommended to pass CHEM A322 prior to registering in CHEM A323L. Students who do not meet the prerequisites for this course may be administratively dropped at the discretion of the faculty. Attendance is mandatory for all chemistry laboratory courses the first week of class. Unless prior arrangements are made with the instructor, any student who does not attend the first scheduled meeting for this lab may be administratively dropped and a student on a wait list will be added in their place. Any fees resulting from either of these drop procedures or any late registration procedure will be the responsibility of the student. Pregnant students should be aware that they will be using chemicals in this course that are teratogenic and may cause harm to unborn children.
Prerequisites: CHEM A106L with a minimum grade of C and CHEM A321 with a minimum grade of C and CHEM A322 with a minimum grade of C or concurrent enrollment.

CHEM A411 Biophysical Chemistry **3 Credits**
Study of principles of thermodynamics, equilibrium, and kinetics with a focus on biochemical systems.
May Be Stacked With: CHEM A611
Prerequisites: CHEM A106 with a minimum grade of C and (MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C) and PHYS A124 with a minimum grade of C.

CHEM A418 Experiential Learning: Chemical Instrumentation and Methods **5 Credits**
An experiential learning course that includes discussion of theories and concepts, and extensive laboratory exercises in qualitative and quantitative analysis of chemical compounds, with applications to health sciences, biomedical sciences, environmental sciences and geosciences.
Prerequisites: CHEM A218 with a minimum grade of C and CHEM A321 with a minimum grade of C.

CHEM A441 Principles of Biochemistry I **3 Credits**
A study of the structure and function of various biomolecules, including amino acids, proteins, carbohydrates, nucleic acids, lipids and membranes.
Special Note: Students who complete CHEM A441 as part of their undergraduate degree cannot receive credit toward their graduate degree from CHEM A641.
Registration Restrictions: Junior or senior standing
May Be Stacked With: CHEM A641
Prerequisites: BIOL A108 with a minimum grade of C and CHEM A321 with a minimum grade of C.
Attributes: UAA Integrative Capstone GER.

CHEM A442 Principles of Biochemistry II **3 Credits**
A study of the bioenergetics and the metabolic pathways of amino acids, proteins, carbohydrates, nucleic acids and lipids.
Special Note: Students who complete CHEM A442 as part of their undergraduate degree cannot receive credit toward their graduate degree from CHEM A642.
Prerequisites: CHEM A441 with a minimum grade of C.

CHEM A443 Biochemistry Laboratory **2 Credits**
Provides instruction in modern biochemical laboratory techniques.
Prerequisites: CHEM A441 with a minimum grade of C.

CHEM A456 Nonlinear Dynamics and Chaos **3 Credits**
Introduces nonlinear dynamics and chaos. Develops analytical methods and geometric intuition using concrete examples from physics, biology, chemistry, and engineering. Topics covered include phase plane analysis, iterated maps, fractals, and strange attractors.
Registration Restrictions: Completion of GER Tier 1 (basic college-level skills) courses and junior standing
Crosslisted With: BIOL A456 and PHYS A456
Prerequisites: MATH A253 with a minimum grade of C and (PHYS A124 with a minimum grade of C or PHYS A212 with a minimum grade of C).
Attributes: UAA Integrative Capstone GER.

CHEM A471 Immunology **3 Credits**
Fundamental concepts of immunology including cells and tissues of the immune system, innate immunity, lymphocyte development, antigenicity, cytokine signaling, antibody responses, immunotherapies and vaccines. Discusses comparative immunological evolution of non-human species. Emphasizes immunological aspects of human disease including host-pathogen interactions, autoimmune diseases, immunodeficiencies and cancer.
Crosslisted With: BIOL A471.
Prerequisites: BIOL A242 with a minimum grade of C and BIOL A252 with a minimum grade of C.

CHEM A474 Ecotoxicology **3 Credits**
Examines the chemical and ecological nature of pollution processes and the major classes and environmental fate of pollutants.
Crosslisted With: BIOL A474
Prerequisites: BIOL A271 with a minimum grade of C or CHEM A321 with a minimum grade of C.
Attributes: UAA Integrative Capstone GER.

CHEM A480 Molecular Spectroscopy and Structure **3 Credits**
Introduction to determining constitutional and stereochemical structure of chemical compounds using spectroscopic methods (mass spectrometry, nuclear magnetic resonance, infrared, ultraviolet), with applications to health, biomedical and environmental sciences.
May Be Stacked With: CHEM A680
Prerequisites: CHEM A322 with a minimum grade of C.

CHEM A481 Experiential Learning: Undergraduate Seminar I **1 Credit**
Introduction to the techniques and style of technical oral presentation generally accepted by professional chemists.
Registration Restrictions: Junior or senior standing and department approval

CHEM A482 Experiential Learning: Undergraduate Seminar II **2 Credits**
Continuation of instruction on the techniques and style of technical oral presentation generally accepted by professional chemists.
Prerequisites: CHEM A481 with a minimum grade of C.

CHEM A495 Chemistry Internship **3 Credits**
Work experience in an approved position with supervision and training in various agencies and businesses. Exposes student to work environment beyond the campus setting to acquire essential practical skills and enhance self-confidence and career direction.
Special Note: May be repeated once for credit.
Registration Restrictions: Junior or senior standing and department approval

CHEM A498 Individual Research **1-6 Credits**
Discipline-specific research for undergraduate students. Topic of study to be approved and mentored by a faculty member.
Special Note: May be repeated for a maximum of 6 credits.
Registration Restrictions: Junior or senior standing and department approval

CHEM A611 Advanced Biophysical Chemistry **3 Credits**
Advanced study of biophysical chemistry through the principles of thermodynamics, equilibrium and kinetics with a focus on biochemical systems. Introduction to computational techniques in physical chemistry. Examination of the current literature in biophysical chemistry.
Special Note: Not available for credit to students who have completed CHEM A411.
Registration Restrictions: Graduate standing and instructor approval
May Be Stacked With: CHEM A411

CHEM A641 Advanced Biochemistry I **3 Credits**
In depth study of the structure and function of various biomolecules, including amino acids, proteins, carbohydrates, nucleic acids, lipids and membranes.
Special Note: Not available for credit to students who have taken CHEM A441.
Registration Restrictions: Graduate standing; a course in organic chemistry and a course in biology, or instructor permission.
May Be Stacked With: CHEM A441

CHEM A680 Advanced Molecular Spectroscopy and Structure **3 Credits**
Discusses advanced molecular spectroscopy theory and principles for structural analysis. Reviews literature with regard to recent applications to health, biomedical and environmental sciences.
Registration Restrictions: Graduate standing and instructor approval
May Be Stacked With: CHEM A480

CHEM A698 Graduate Research **1-6 Credits**
Discipline-specific research for graduate students. Topic of study to be approved and directed by a faculty member.
Special Note: May be repeated for a maximum of 12 credits.
Registration Restrictions: Graduate standing and permission of graduate advisor

CHEM A699 Graduate Thesis **1-6 Credits**
Development, preparation, and completion of thesis at a graduate level. May be repeated for a maximum of 6 credits.
Registration Restrictions: Graduate standing and instructor permission.

Civic Engagement & Learning (CEL)

Courses

CEL A292 Introduction to Civic Engagement **3 Credits**
Introduces students to types of civic engagement in a democracy, practices of engagement and inquiry, and public issues of ethics, sustainability, community-building, and human and civil rights through readings, reflections and a service-learning placement or project.
Special Note: This course is an active discussion seminar and serves as a social sciences GER.
Attributes: UAA Intercultural Fluency GER, UAA Social Sciences GER.

CEL A390 Special Topics in Civic Engagement **1-3 Credits**
Variable topics course addressing current issues in civic engagement, a field of study which prepares students to be active, effective, and ethical citizens in their professional and personal lives. Topics of local, national, and international interest will be included.
Special Note: May be repeated for credit with a change of subtitle up to a maximum of 9 credits.
Registration Restrictions: Completion of GER Tier 1 (basic college-level skills) courses.

CEL A395 Civic Engagement Internship **3-9 Credits**
Internship in which student gains intensive experience applying principles of civic engagement and major-disciplinary knowledge and skills to a community-identified problem.
Special Note: Students complete approximately 135 hours, usually in a community non-profit or government agency.
Registration Restrictions: Junior or senior standing and completion of GER Tier 1 (basic college-level skills) courses and instructor approval.

Civil Engineering (CE)

Courses

CE A201 Introduction to Civil Engineering **1 Credit**
Introduces students to roles, responsibilities, and capabilities of the various civil engineering sub-disciplines including structural, geotechnical, transportation, environmental, and water resources engineering.
Prerequisites: ENGR A151 with a minimum grade of C and ES A106 with a minimum grade of C and (MATH A251 with a minimum grade of C or concurrent enrollment or MATH A251F with a minimum grade of C or concurrent enrollment).

CE A206 Civil Engineering 3D Modeling **1 Credit**
Focuses on using computer-aided design (CAD) software as tools for designing civil engineering projects. Topics include working with points, creating and analyzing surfaces, modeling road corridors, creating parcel layouts, performing grading and volume calculations, and to layout pipe networks.
Prerequisites: (ENGR A105B with a minimum grade of C or ES A106 with a minimum grade of C) and CE A201 with a minimum grade of C and GEO A155 with a minimum grade of C.

CE A310 Introduction to Geotechnical Engineering **3 Credits**
Introduces fundamentals of geotechnical engineering, including identification and classification of soil, physical and mechanical properties of soil, subsurface exploration, laboratory testing techniques, seepage, compaction, stresses in soil, soil consolidation, drained and undrained shear strength of soil, and cold regions special issues such as frost action.
Registration Restrictions: Admission to the Bachelor of Science in Civil Engineering or the Master of Science in Civil Engineering
Prerequisites: CE A334 with a minimum grade of C and ES A331 with a minimum grade of C.

CE A310L Introduction to Geotechnical Engineering Lab **1 Credit**
Introduces the theory and procedures of routine soil tests. Provides hands-on experience of soil testing. Introduces skills on how to write a soil testing report. This course is taught in conjunction with CE A310 Introduction to Geotechnical Engineering.
Corequisites: CE A310.

CE A334 Properties of Materials **2 Credits**
Introduces experimental investigation of the properties of civil engineering materials and the basic principles of mechanics. Discusses bonding and structure of materials at the molecular level and relationship to engineering properties. Discusses concrete mix design, asphalt testing and the use of standard testing procedures for analyzing other engineering materials.
Registration Restrictions: Admission to the Bachelor of Science in Civil Engineering or the Master of Science in Civil Engineering
Prerequisites: CE A201 with a minimum grade of C or concurrent enrollment and ES A302 with a minimum grade of C or concurrent enrollment and ES A331 with a minimum grade of C or concurrent enrollment.

CE A334L Properties of Materials Laboratory **1 Credit**
Introduces the theory and procedures of laboratory testing of civil engineering materials. Gain hands-on experience of laboratory testing of civil engineering materials. This course is taught in conjunction with CE A334 Properties of Materials.
Corequisites: CE A334.

CE A341 Environmental Engineering **3 Credits**
Introduces fundamentals of environmental engineering, including theory and application of water and wastewater, solid waste and air quality engineering practice. Discusses natural processes that influence pollutant fate and use of these processes in engineered systems for pollution control.
Prerequisites: CHEM A106 with a minimum grade of C and CHEM A106L with a minimum grade of C and (MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C).

CE A351 Structural Analysis **4 Credits**
Introduces techniques for the analysis of statically determinate and indeterminate structures to include beams, trusses and frames. Discusses internal force resultants, shear, normal and moment diagrams, deflections, internal stresses. Discusses indeterminate analysis of structures using classical and modern computational methods.
Prerequisites: ES A331 with a minimum grade of C.

CE A403 Arctic Engineering **3 Credits**
Introduces students to a broad spectrum of engineering challenges unique to cold regions. Discusses physical principles and practical data collection methods, analyses, designs and construction methods. Students gain a working knowledge of cold regions engineering problems and modern solutions as a basis for more detailed study.
Registration Restrictions: Admission to the Bachelor of Science in Civil Engineering and junior or senior standing
May Be Stacked With: CE A603
Prerequisites: CE A310 with a minimum grade of C and CE A310L with a minimum grade of C.

CE A410 Foundation Engineering **3 Credits**
Reviews slope stability analysis. Introduces bearing capacity of soils and effects of settlements on structure. Discusses design of footings and rafts, pile and pier foundations, retaining walls and anchored bulkheads, and foundations in frozen soils. Addresses construction problems in foundation engineering.
Prerequisites: CE A310 with a minimum grade of C.

CE A414 Soil Strength and Slope Stability **3 Credits**
Covers advanced knowledge of soil shear strength properties; analysis of slope stability, including seismic stability and design of slope stabilization; case histories study and applications to cold regions engineering problems.
Registration Restrictions: Senior in civil engineering or instructor permission.
May Be Stacked With: CE A614
Prerequisites: CE A310 with a minimum grade of C.

CE A420 Fundamentals of Transportation Engineering **3 Credits**
Introduces multi-modal transportation systems, including highways, airports, railroads and water transportation. Discusses factors that influence planning, design and operation of these systems. Emphasizes highway systems.
Prerequisites: ES A210 with a minimum grade of C and GEO A155 with a minimum grade of C.

CE A421 Design of Highways **3 Credits**
Discusses fundamental aspects of transportation engineering in the design of highway systems. Addresses the design of geometric elements of streets and highways with the focus on safety, efficiency and pavement design. Topical areas include roadway functional classification, traffic controls, vertical and horizontal alignments, cross-section, interchanges, and intersections.
Prerequisites: CE A206 with a minimum grade of C and CE A310 with a minimum grade of C and CE A420 with a minimum grade of C.

CE A423 Traffic Engineering **3 Credits**
Provides instruction in the study and analysis of traffic flow theory and the design of traffic control systems. Covers signalization, capacity analysis, traffic accident analysis and other safety considerations.
Special Note: Not available for credit to students who have completed CE A623.
May Be Stacked With: CE A623
Prerequisites: CE A420 with a minimum grade of C.

CE A424 Pavement Design **3 Credits**
Provides instruction on the current practices of analysis and design of highway and airport pavements. Includes theoretical and practical approaches for the design of flexible and rigid pavements. Materials characterization, load considerations, empirical and mechanistic design methods as well as rehabilitation are covered.
Special Note: Not available for credit to students who have completed CE A624.
May Be Stacked With: CE A624
Prerequisites: CE A334 with a minimum grade of C.

CE A425 Highway Engineering **3 Credits**
Introduces the design of geometric elements of streets and highways with emphasis on safety and efficiency. Roadway functional classification, design controls, vertical and horizontal alignments, cross sections, interchanges and intersections are topics covered in this course.
Special Note: Not available for credit to students who have completed CE A625.
May Be Stacked With: CE A625
Prerequisites: CE A420 with a minimum grade of C or CE A421 with a minimum grade of C.

CE A428 Highway Safety **3 Credits**
Examines highway safety principles in the planning and operation of highway facilities, based on the national standards addressed in the AASHTO (American Association for State Highway and Transportation Officials) Highway Safety Manual.
Special Note: Not available for credit to students who have completed CE A628.
May Be Stacked With: CE A628
Prerequisites: CE A420 with a minimum grade of C.

CE A432 Steel Design **3 Credits**
Introduces structural design philosophies and current practices related to steel design. Utilizes the American Institute of Steel Construction (AISC) specification to discuss the design of basic structural elements in steel including tension members, fasteners, welds, column buckling, beam behavior, beam-columns and composite floor systems.
Prerequisites: CE A351 with a minimum grade of C.

CE A433 Reinforced Concrete Design **3 Credits**
Introduces structural design philosophies and current practices in reinforced concrete design. Utilizes the American Concrete Institute (ACI) specifications and standard practices for the design of basic structural elements in concrete including beams, columns, beam-columns and slabs-on-grade.
Prerequisites: CE A351 with a minimum grade of C.

CE A437 Project Planning **1 Credit**
Introduces civil engineering project planning and analysis. Defines scope of work and develops goals, objectives and criteria for evaluation and implementation of civil engineering projects.
Prerequisites: CE A206 with a minimum grade of C and (CE A410 with a minimum grade of C or concurrent enrollment or CE A420 with a minimum grade of C or concurrent enrollment or CE A432 with a minimum grade of C or concurrent enrollment or CE A433 with a minimum grade of C or concurrent enrollment or CE A442 with a minimum grade of C or concurrent enrollment or CE A461 with a minimum grade of C or concurrent enrollment or CE A464 with a minimum grade of C or concurrent enrollment).

CE A438 Design of Civil Engineering Systems **3 Credits**
Provides an opportunity for civil engineering students to collaborate in multidisciplinary teams to design a complex civil engineering system that meets client needs while protecting public health and safety.
Registration Restrictions: Senior standing
Prerequisites: CE A437 with a minimum grade of C and (CE A410 with a minimum grade of D or CE A420 with a minimum grade of D or CE A432 with a minimum grade of D or CE A433 with a minimum grade of D or CE A442 with a minimum grade of D or CE A461 with a minimum grade of D or CE A464 with a minimum grade of D).
Attributes: UAA Integrative Capstone GER.

CE A439 Loads on Structures **3 Credits**
Provides fundamental background on reliability analysis and statistical development of loads and load combinations. Covers the computation of loads on structures using ASCE7, Minimum Design Loads for Buildings and Other Structures, structural design philosophies (ASD and LRFD), and load path evaluation in common structural systems. Topics include a variety of environmental loads that affect structures (dead, live, soil, flood, snow, wind, and seismic), and probable combinations of them.
Special Note: Not available for credit to students who have completed CE A639.
Registration Restrictions: Senior standing
May Be Stacked With: CE A639
Prerequisites: CE A351 with a minimum grade of C.

CE A442 Environmental Engineering Design **3 Credits**
Presents design methods for pollution control and remediation systems. Applies theories and principles for the design of engineering systems for environmental protection, management and control. Includes water and wastewater treatment and solid waste management.
Prerequisites: CE A341 with a minimum grade of C and ES A341 with a minimum grade of C.

CE A446 Biological Treatment Processes **3 Credits**
Theory and design of aerobic and anaerobic process for the treatment of wastewater including activated sludge, various surface film reactors, sludge digestion and disposal, and nutrient removal.
May Be Stacked With: CE A646
Prerequisites: CE A442 with a minimum grade of C.

CE A451 Advanced Structural Analysis **3 Credits**
Introduction of the Direct Stiffness Method (Matrix Analysis Method) with computer solutions for two-dimensional and three-dimensional linear-elastic frame and truss structures. Topics include shear deformations, elastic supports and connections, support settlements, thermal loads, and energy formulations of force-displacement relationships.
Registration Restrictions: MATH A314 is recommended
May Be Stacked With: CE A651
Prerequisites: CE A351 with a minimum grade of C.

CE A454 Timber Design **3 Credits**
Covers essentials of structural design in timber including building code requirements and standard practice for the design of basic structural elements, connections and shearwall lateral force resisting systems.
May Be Stacked With: CE A654
Prerequisites: CE A351 with a minimum grade of C.

CE A461 Hydraulic Analysis and Design **3 Credits**
Presents analysis and design techniques for hydraulic facilities including water storage, conveyance, and pumping systems. Industry-standard computer software for hydraulic design will also be introduced.
Prerequisites: ES A341 with a minimum grade of C.

CE A462 Surface Water Dynamics **3 Credits**
Covers open channel flow theory including: steady and unsteady flow, water surface profiles and the impact of hydraulic structures; sediment transport under open channel flow.
May Be Stacked With: CE A662
Prerequisites: ES A341 with a minimum grade of C.

CE A464 Hydrologic Analysis and Design **3 Credits**
Presents fundamental concepts of hydrologic cycle, including precipitation, snow cover, evaporation, and groundwater hydraulics. Explains techniques of statistical hydrology and the usage of simulation models. The design of simple hydraulic structures will also be introduced.
Prerequisites: ES A341 with a minimum grade of C.

CE A476 Coastal Engineering **3 Credits**
Applies linear and nonlinear wave theory to the study of coastal processes and the design of coastal structures; wave transformation processes including wind generation, refraction and diffraction.
May Be Stacked With: CE A676
Prerequisites: ES A341 with a minimum grade of C.

CE A479 Sediment Transport and Coastal Processes **3 Credits**
Investigates sediment transport and coastal processes on beaches and in riverine/estuarine environments. Includes study of underlying hydrodynamic principles and engineering practices that are used to understand and solve sediment transport and coastal problems.
May Be Stacked With: CE A679
Prerequisites: ES A341 with a minimum grade of C.

CE A603 Arctic Engineering **3 Credits**
Introduces students to a broad spectrum of engineering challenges unique to cold regions. Discusses physical principles and practical data collection methods, analyses, designs and construction methods. Students gain a working knowledge of cold regions engineering problems and modern solutions as a basis for more detailed study.
Special Note: Not available for credit to students who have completed CE A403.
Registration Restrictions: Graduate standing with a baccalaureate degree in engineering
May Be Stacked With: CE A403

CE A610 Engineering Seismology **3 Credits**
Covers the internal structure of the earth, the causes, and the occurrence of earthquakes including seismic waves and their propagation, seismograms with special emphasis to strong ground motion measurements, accelerometers, and seismic networks. Introduces seismic data processing and interpretation of strong motion records, estimation of ground motion parameters, and their spatial variabilities. Discusses the concepts of probabilistic and deterministic seismic hazard assessment with special reference to Alaska.
Registration Restrictions: Graduate standing or instructor approval
Prerequisites: CE A310 with a minimum grade of C.

CE A611 Geotechnical Earthquake Engineering **3 Credits**
Covers earthquakes and seismology, strong ground motion measurement, seismic hazard analysis, ground response analysis, dynamic soil properties, liquefaction, soil-structure interaction, seismic slope stability, and seismic design of retaining structures, with applications to cold regions geotechnical earthquake engineering problems.
Registration Restrictions: Graduate or senior standing and admission to the Master of Science in Civil Engineering or the Bachelor of Science in Civil Engineering, or instructor approval
Prerequisites: CE A310 with a minimum grade of C.

CE A612 Advanced Foundation Design **3 Credits**
Presents the analysis, design, and construction aspects of deep foundations and other special topics of deep foundations related to cold regions engineering. Specifically, this course will cover lateral earth pressures, lateral support systems, single pile and pile group behavior under vertical and lateral loads, including static and dynamic loading conditions, and the latest development in soil improvement and ground modification techniques. Special foundation engineering issues related to cold regions will also be discussed.
Registration Restrictions: Graduate standing or admission to the Bachelor of Science in Civil Engineering or instructor permission.
Prerequisites: CE A410 with a minimum grade of C.

CE A614 Soil Strength and Slope Stability **3 Credits**
Covers advanced knowledge of soil shear strength properties; analysis of slope stability, including seismic stability and design of slope stabilization; case histories study and applications to cold regions engineering problems.
Registration Restrictions: Graduate standing or instructor approval.
May Be Stacked With: CE A414
Prerequisites: CE A310 with a minimum grade of C.

CE A623 Traffic Engineering **3 Credits**
Provides instruction in the study and analysis of traffic flow, theory, and the design of traffic control systems. Covers signalization, capacity analysis, traffic accident analysis and other safety considerations.
Special Note: Not available for credit to students who have completed CE A423.
Registration Restrictions: Graduate standing
May Be Stacked With: CE A423

CE A624 Pavement Design **3 Credits**
Introduces current practices of analysis and design of highway and airport pavements. Includes theoretical and practical approaches for the design of flexible and rigid pavements. Materials characterization, load considerations, empirical and mechanistic design methods, and rehabilitation are also covered.
Special Note: Not available for credit to students who have completed CE A424.
Registration Restrictions: Graduate standing
May Be Stacked With: CE A424

CE A625 Highway Engineering **3 Credits**
Introduces the design of geometric elements of streets and highways with emphasis on safety and efficiency. Covers roadway functional classification, design controls, vertical and horizontal alignments, cross sections, interchanges and intersections.
Special Note: Not available for credit to students who have completed CE A425.
Registration Restrictions: Graduate standing
May Be Stacked With: CE A425

CE A628 Highway Safety **3 Credits**
Highway safety principles in the planning, operational and existing conditions based on the national standards addressed in the AASHTO (American Association of State Highway and Transportation Officials) Highway Safety Manual. Application of these principles to highway facilities.
Special Note: Not available for credit to students who have completed CE A428.
Registration Restrictions: Graduate standing or instructor approval
May Be Stacked With: CE A428

CE A630 Advanced Mechanics of Materials **3 Credits**
Covers advanced topics in the mechanics of solids, including both equilibrium and energy approaches. Provides in-depth study of topics introduced in previous courses such as bending of beams, torsion, and plane stress and strain. Additionally covers 3-D stress and strain analysis, yield and failure criteria, and time-dependent deformations.
Registration Restrictions: Graduate standing and instructor permission.
Crosslisted With: ME A630.

CE A634 Structural Earthquake Engineering **3 Credits**
Introduces basic seismic concepts and design principles. Criteria for design and construction of structure subject to earthquake ground motions. Also includes technology for reducing earthquake loads through seismic isolation.
Registration Restrictions: Graduate standing or instructor approval
Prerequisites: CE A351 with a minimum grade of C.

CE A637 Earthquake Resistant Structural Design **3 Credits**
Covers the special structural detail requirements for earthquake design in steel, concrete, timber, and masonry.
Registration Restrictions: Graduate standing or undergraduate senior standing, or instructor approval
Prerequisites: CE A351 with a minimum grade of C and CE A432 with a minimum grade of C and CE A433 with a minimum grade of C.

CE A639 Loads on Structures **3 Credits**
Provides a fundamental background on reliability analysis and statistical development of loads and load combinations. Covers the computation of loads on structures using ASCE 7 (American Society of Civil Engineers), Minimum Design Loads for Buildings and Other Structures, structural design philosophies, and load path evaluation in common structural systems. Topics include a variety of environmental loads that affect structures (dead, live, soil, flood, snow, wind, and seismic) and probable combinations of them.
Special Note: Not available for credit to students who have completed CE A439. Additional coursework will be required in the area of structural reliability analysis for students enrolled in CE A639.
Registration Restrictions: Graduate standing or instructor approval
May Be Stacked With: CE A439

CE A645 Chemical and Physical Water and Wastewater Treatment Processes **3 Credits**
Covers theory and design of chemical and physical unit processes utilized in the treatment of water and wastewater. Covers advanced theory of common unit processes including sedimentation, flotation, precipitation, disinfection, filtration and aeration. Explores these topics in association with current peer-reviewed literature. Evaluates appropriate design considerations.
Registration Restrictions: Graduate standing and admission to the College of Engineering, or instructor approval

CE A646 Biological Treatment Processes **3 Credits**
Theory and design of aerobic and anaerobic process for the treatment of wastewater including activated sludge, various surface film reactors, sludge digestion and disposal, and nutrient removal.
Registration Restrictions: Graduate standing
May Be Stacked With: CE A446

CE A648 Solid Waste Systems and Technologies **3 Credits**
Discusses planning, collecting and disposing of solid waste; techniques and design considerations of collection, transportation, disposal and resource recovery; solid waste environmental regulations and relationships to water, air, and land pollution; and hazardous waste management.
Registration Restrictions: Graduate standing or instructor approval

CE A651 Advanced Structural Analysis **3 Credits**
Introduces the Direct Stiffness Method (Matrix Analysis Method) with computer solutions for two-dimensional and three-dimensional linear-elastic frame and truss structures. Topics include shear deformations, elastic supports and connections, support settlements, thermal loads, and energy formulations of force-displacement relationships.
Registration Restrictions: Graduate standing or instructor approval.
May Be Stacked With: CE A451

CE A652 Advanced Steel Design **3 Credits**
Covers advanced structural design in steel, including building code requirements and standard practice for the design of steel structures and connections. Introduces seismic design of steel building structures.
Special Note: Requires knowledge of steel design. Can request instructor approval if the prerequisite is not met.
Registration Restrictions: Graduate standing or instructor approval
Prerequisites: CE A432 with a minimum grade of C.

CE A654 Timber Design **3 Credits**
Covers essentials of structural design in timber including building code requirements and standard practice for the design of structural elements, connections and shearwall lateral force resisting systems.
Special Note: Requires knowledge of structural analysis.
Registration Restrictions: Graduate standing
May Be Stacked With: CE A454

CE A662 Surface Water Dynamics **3 Credits**
Covers open channel flow theory including: steady and unsteady flow, water surface profiles and the impact of hydraulic structures; sediment transport under open channel flow.
Special Note: Requires knowledge of fluid mechanics.
Registration Restrictions: Graduate standing and admission to the College of Engineering
May Be Stacked With: CE A462

CE A663 Ground Water Dynamics **3 Credits**
Covers fundamentals of geohydrology, hydraulics of flow through porous media, well hydraulics, ground water pollution, and ground water resources development.
Special Note: Requires knowledge of fluid mechanics.
Registration Restrictions: Graduate standing

CE A676 Coastal Engineering **3 Credits**
Applies linear and nonlinear wave theory to the study of coastal processes and the design of coastal structures; wave transformation processes including wind generation, refraction and diffraction.
Special Note: Requires knowledge of fluid mechanics.
Registration Restrictions: Graduate standing and admission to the College of Engineering
May Be Stacked With: CE A476

CE A677 Coastal Measurements and Analysis **3 Credits**
Covers theory and use of modern instrumentation, sampling and measurement techniques, and methods of analysis for quantitative study of coastal ocean physical processes.
Registration Restrictions: Graduate standing or instructor approval

CE A679 Sediment Transport and Coastal Processes **3 Credits**
Investigates sediment transport and coastal processes on beaches and in riverine/estuarine environments. Includes study of underlying hydrodynamic principles and engineering practices that are used to understand and solve sediment transport and coastal problems.
Registration Restrictions: Graduate standing and admission to the Master of Science in Civil Engineering, or instructor approval
May Be Stacked With: CE A479

CE A681 Frozen Ground Engineering **3 Credits**
Covers physical, thermal, and mechanical properties of frozen soils, frost action, heat flow in soils, thaw behavior of frozen ground, foundations in frozen ground, construction ground freezing, pavement design, earthwork, and field investigations.
Special Note: Requires knowledge in soil mechanics.
Registration Restrictions: Graduate standing

CE A686 Civil Engineering Project **3 Credits**
Civil and Arctic Engineering project arranged among the advisor, graduate advisory committee and student to solve a practical engineering problem.
Registration Restrictions: Graduate standing with a minimum of 9 graduate credits.

CE A690 Selected Topics in Civil Engineering **3 Credits**
Facilitates graduate level analysis and/or design pertaining to a selected topic in Civil Engineering.
Special Note: May be repeated once with a change of subtitle.
Registration Restrictions: Graduate standing, admission to the College of Engineering, or instructor approval

CE A698 Individual Research **1-9 Credits**
A course to be designed between the student and faculty member to allow students the chance to pursue advanced research interests in engineering at the MS level.
Registration Restrictions: Graduate standing and instructor permission

CE A699 Thesis **1-9 Credits**
Individual study of an advanced engineering problem resulting in a thesis.
Registration Restrictions: Graduate standing and instructor approval

College of Health Interprofessional (COHI)

Courses

COHI A420 Physical Activity and Aging **3 Credits**
Examines the effects of exercise and physical activity on the process of aging. Introduces physiological and psychological changes that occur, chronic diseases associated with aging, and factors to consider when structuring exercise programs for older adults. Develops knowledge and skills necessary for understanding, leading, or participating in physical activity and education programs for seniors.

COHI A490 Selected Topics in Interprofessional Education **1-6 Credits**
Addresses selected topics in health, healthcare, and/or health services using the principles and values of interprofessional education and practice with faculty and students from various professional fields and experience; and, discusses theories and practice related to the disciplines represented in the course.
Special Note: May be repeated for credit with a change of subtitle.
Registration Restrictions: Junior or senior standing
May Be Stacked With: COHI A690

COHI A655 Interdisciplinary Approaches to FASD: Best Practices in Alaska **3 Credits**
Introduces competencies on Fetal Alcohol Spectrum Disorder (FASD) including: prevention strategies, alcohol use disorders and current strategies for FASD-related risk identification/screening, diagnosis, and treatment across the lifespan. Supplements the discipline-specific knowledge of health programs and aims to prepare students as interdisciplinary health care professionals in caring for individuals who experience FASD.
Registration Restrictions: Graduate standing or instructor approval.

COHI A690 Selected Topics in Interprofessional Education **1-6 Credits**
Addresses selected topics in health, healthcare, and/or health services at an advanced level using the principles and values of interprofessional education and practice with faculty and students from various professional fields and experience; and, discusses theories and practice related to the disciplines represented in the course.
Special Note: May be repeated for credit with a change of subtitle.
Registration Restrictions: Graduate standing
May Be Stacked With: COHI A490

Communication (COMM)

Courses

COMM A111 Fundamentals of Oral Communication **3 Credits**
Introduction to oral communication focusing on interpersonal, small group and public speaking processes. Students develop oral communication skills for improving feedback, active listening, language usage, nonverbal behavior, audience analysis, and techniques for speech preparation, delivery and alleviating speaking anxiety.
Special Note: Students who qualify for placement in WRTG A111 or have already completed WRTG A111 are qualified for this course.
Registration Restrictions: Appropriate test score on English placement test, SAT Verbal Section, or ACT English Test will waive the ENGL A109 or WRTG A110 prerequisite.
Prerequisites: ENGL A109 with a minimum grade of C or WRTG A110 with a minimum grade of C or WRTG A111 with a minimum grade of C or WRTG A1W with a minimum grade of C or (Accuplacer-Reading Comp with a score of 080 and Accuplacer-Sentence Skills with a score of 090) or Accuplacer-Sum AASS + AARC with a score of 170 or (Accuplacer NG Writing with a score of 265 and Accuplacer NG Reading with a score of 265) or Accuplacer NG AAWR + AARE with a score of 530 or Enhanced ACT English with a score of 22 or Enhanced ACT Sum EAEN + EARE with a score of 36 or EVIDENCE-BASED READ/WRIT SCORE with a score of 480.
Attributes: UAA Oral Communication GER.

COMM A235 Small Group Communication **3 Credits**
Practical application of the theories of interaction, information sharing, decision making, team building and problem solving to small group situations. Principles of conflict, leadership, group roles, self-evaluation, evidence and reasoning are explored through group observation, practice and analysis. Students develop oral communication skills by engaging in a variety of individual and group presentations.
Special Note: Students who qualify for placement in WRTG A111 or have already completed WRTG A111 are qualified for this course.
Registration Restrictions: Appropriate test score on English placement test, SAT Verbal Section, or ACT English Test will waive the ENGL A109 or WRTG A110 prerequisite.
Prerequisites: ENGL A109 with a minimum grade of C or WRTG A110 with a minimum grade of C or WRTG A111 with a minimum grade of C or WRTG A1W with a minimum grade of C or (Accuplacer-Reading Comp with a score of 080 and Accuplacer-Sentence Skills with a score of 090) or Accuplacer-Sum AASS + AARC with a score of 170 or (Accuplacer NG Writing with a score of 265 and Accuplacer NG Reading with a score of 265) or Accuplacer NG AAWR + AARE with a score of 530 or Enhanced ACT English with a score of 22 or Enhanced ACT Sum EAEN + EARE with a score of 36 or EVIDENCE-BASED READ/WRIT SCORE with a score of 480.
Attributes: UAA Oral Communication GER.

COMM A237 Interpersonal Communication **3 Credits**
Understanding and building interpersonal communication skills. Students use experiential and oral performance approaches to explore nonverbal and verbal channels, emotions, empathetic listening, perception, self-disclosure, and conflict in significant personal and professional relationships.
Special Note: Students who qualify for placement in WRTG A111 or have already completed WRTG A111 are qualified for this course.
Registration Restrictions: Appropriate test score on English placement test, SAT Verbal Section, or ACT English Test will waive the ENGL A109 or WRTG A110 prerequisite.
Prerequisites: ENGL A109 with a minimum grade of C or WRTG A110 with a minimum grade of C or WRTG A111 with a minimum grade of C or WRTG A1W with a minimum grade of C or (Accuplacer-Reading Comp with a score of 080 and Accuplacer-Sentence Skills with a score of 090) or Accuplacer-Sum AASS + AARC with a score of 170 or (Accuplacer NG Writing with a score of 265 and Accuplacer NG Reading with a score of 265) or Accuplacer NG AAWR + AARE with a score of 530 or Enhanced ACT English with a score of 22 or Enhanced ACT Sum EAEN + EARE with a score of 36 or EVIDENCE-BASED READ/WRIT SCORE with a score of 480.
Attributes: UAA Oral Communication GER.

COMM A241 Public Speaking **3 Credits**
Speaking skills for individual presentations. Preparation, delivery and analysis of speeches in various platform speaking situations. Includes verbal and nonverbal skills, critical thinking in selecting and organizing materials, audience analysis, informative and persuasive presentations.
Special Note: Students who qualify for placement in WRTG A111 or have already completed WRTG A111 are qualified for this course.
Registration Restrictions: Appropriate test score on English placement test, SAT Verbal Section, or ACT English Test will waive the ENGL A109 or WRTG A110 prerequisite.
Prerequisites: ENGL A109 with a minimum grade of C or WRTG A110 with a minimum grade of C or WRTG A111 with a minimum grade of C or WRTG A1W with a minimum grade of C or (Accuplacer-Reading Comp with a score of 080 and Accuplacer-Sentence Skills with a score of 090) or Accuplacer-Sum AASS + AARC with a score of 170 or (Accuplacer NG Writing with a score of 265 and Accuplacer NG Reading with a score of 265) or Accuplacer NG AAWR + AARE with a score of 530 or Enhanced ACT English with a score of 22 or Enhanced ACT Sum EAEN + EARE with a score of 36 or EVIDENCE-BASED READ/WRIT SCORE with a score of 480.
Attributes: UAA Oral Communication GER.

COMM A255 Organizational Communication **3 Credits**
Explores the essential nature and experience of communication in organizations. Analyzes and synthesizes approaches, theories and research conceptions of organizations including metaphors for organizational communication, culture and climate within organizations, socialization/assimilation/membership negotiation, power, motivation/performance, and organizational innovation and change.
Prerequisites: COMM A111 with a minimum grade of C or COMM A1O with a minimum grade of C or COMM A235 with a minimum grade of C or COMM A237 with a minimum grade of C or COMM A241 with a minimum grade of C or COMM A2O with a minimum grade of C.
Attributes: UAA Social Sciences GER.

COMM A280 Communication Theories in Action **3 Credits**
Explores and analyzes major communication theories, principles and research paradigms in interpersonal, group, organizational and public contexts. Focuses on applying these theories to real world situations.
Attributes: UAA Social Sciences GER.

COMM A300 Health Communication **3 Credits**
Explores, examines and analyzes communication dynamics that exist between participants across a wide range of health contexts, including care providers, patients/clients, peers, friends and family members. Explores, examines and analyzes how health-related messages may be constructed and conveyed in social, cultural and organizational contexts. Explores health-related discourse in the public sphere, looking at the communicative dimensions of health-related campaigns and public policy.
Prerequisites: COMM A111 with a minimum grade of C or COMM A1O with a minimum grade of C or COMM A235 with a minimum grade of C or COMM A237 with a minimum grade of C or COMM A241 with a minimum grade of C or COMM A2O with a minimum grade of C.

COMM A305 Intercultural Communication **3 Credits**
Examines the processes of interpersonal communication when the effects of cultural differences create dissimilar interpretations and expectations for interpersonal interaction. Explores theories and experiences of communication in intercultural relationships.
Prerequisites: COMM A111 with a minimum grade of C or COMM A1O with a minimum grade of C or COMM A235 with a minimum grade of C or COMM A237 with a minimum grade of C or COMM A2O with a minimum grade of C.
Attributes: UAA Intercultural Fluency GER.

COMM A320 Argumentation and Debate **3 Credits**
Introduces students to debating as a practical application of argumentation theory. Reviews argumentation theory that serves as the foundation for skill development in inventing, researching, phrasing and articulating arguments in the context of academic debating. Develops students' ability to prepare for, participate in and appraise academic debates.
Prerequisites: COMM A111 with a minimum grade of C or COMM A241 with a minimum grade of C.

COMM A330 Collaboration and Group Decision Making **3 Credits**
Explores, analyzes and applies group decision making theories and processes. Focuses on understanding the role communication plays in affecting and enhancing a group's ability to engage in effective decision making strategies. Examines both descriptive and prescriptive approaches to group decision making and includes practical application of group decision making theories.
Prerequisites: COMM A111 with a minimum grade of C or COMM A235 with a minimum grade of C or COMM A237 with a minimum grade of C or COMM A241 with a minimum grade of C.

COMM A335 Communication and Conflict **3 Credits**
Examines the nature of conflict in interpersonal, family, social, organizational and global contexts. Analyzes the theory and practice of the development and contributing factors of conflict; productive and destructive conflict; and conflict management strategies and tactics.
Prerequisites: COMM A111 with a minimum grade of C or COMM A1O with a minimum grade of C or COMM A235 with a minimum grade of C or COMM A237 with a minimum grade of C or COMM A241 with a minimum grade of C or COMM A2O with a minimum grade of C.

COMM A340 Nonverbal Communication **3 Credits**
Examines and analyzes both theoretical and research literature pertinent to nonverbal communication behavior, including kinetics, touch, voice, appearance and territoriality; as well as the social functions of nonverbal communication, including impression formation and management, regulation of interaction, and social influence and power.
Prerequisites: COMM A111 with a minimum grade of C or COMM A235 with a minimum grade of C or COMM A237 with a minimum grade of C or COMM A241 with a minimum grade of C.

COMM A341 Advanced Public Speaking **3 Credits**
Explores the theory and practice of public speaking. Builds on theories and skills relevant to informative, persuasive and special occasion speeches. Examines and analyzes the qualities of and prepares students to deliver well-organized, highly developed presentations in a polished, professional manner appropriate to the audience and occasion.
Prerequisites: COMM A111 with a minimum grade of C or COMM A241 with a minimum grade of C.

COMM A345 Communication and Gender **3 Credits**
Provides an historical, theoretical, and contemporary view of how communication, culture, and gender interact and create meaning in interpersonal, professional and political settings.
Prerequisites: COMM A111 with a minimum grade of C or COMM A235 with a minimum grade of C or COMM A237 with a minimum grade of C or COMM A241 with a minimum grade of C.
Attributes: UAA Intercultural Fluency GER.

COMM A350 Communication in the Workplace **3 Credits**
Explores communication processes in working relationships. Examines and analyzes the role of communication in structural issues such as workplace culture, climate and group collaboration; and interpersonal issues, including communication styles, conflict, gossip, workplace risks and informal communication.
Prerequisites: COMM A111 with a minimum grade of C or COMM A235 with a minimum grade of C or COMM A237 with a minimum grade of C or COMM A241 with a minimum grade of C.

COMM A360 Competitive Debating **3 Credits**
Explores the theory and practice of competitive academic debating. Considers competitive debating from the perspective of debater, adjudicator and competition organizer.
Special Note: May be repeated once for credit.
Registration Restrictions: Faculty permission.
Prerequisites: COMM A111 with a minimum grade of C or COMM A241 with a minimum grade of C.

COMM A370 Relational Communication **3 Credits**
Examines and analyzes communication processes in intimate personal relationships. Examines the role of communication in relationship processes and practices including relationship engagement, maintenance and disengagement.
Prerequisites: COMM A111 with a minimum grade of C or COMM A235 with a minimum grade of C or COMM A237 with a minimum grade of C.

COMM A385 Communication Research Methods **3 Credits**
Examines the research methods used in the communication discipline. Includes a review of research ethics as well as analysis, evaluation, and application of research methods.
Prerequisites: COMM A111 with a minimum grade of C or COMM A1O with a minimum grade of C or COMM A235 with a minimum grade of C or COMM A237 with a minimum grade of C or COMM A241 with a minimum grade of C or COMM A2O with a minimum grade of C.

COMM A390 Selected Topics in Communication **3 Credits**
Explores selected topics in communication arising from special circumstances of demand or faculty expertise. Specific titles as announced.
Special Note: May be repeated twice for credit with a change of subtitle.
Prerequisites: COMM A111 with a minimum grade of C or COMM A235 with a minimum grade of C or COMM A237 with a minimum grade of C or COMM A241 with a minimum grade of C.

COMM A412 Persuasion **3 Credits**
Examines history, modern theory, and practical application of persuasion perspectives and theories. Reviews current literature and examines and analyzes persuasion across diverse audiences and cultural contexts.
Prerequisites: COMM A111 with a minimum grade of C or COMM A1O with a minimum grade of C or COMM A235 with a minimum grade of C or COMM A237 with a minimum grade of C or COMM A241 with a minimum grade of C or COMM A2O with a minimum grade of C.
Attributes: UAA Integrative Capstone GER.

COMM A420 Family Communication **3 Credits**
Explores interpersonal communication processes in the family. Examines the role of communication in family systems, roles and decision-making; and analyzes the role of communication in power, conflict and family stresses.
Prerequisites: COMM A111 with a minimum grade of C or COMM A235 with a minimum grade of C or COMM A237 with a minimum grade of C or COMM A241 with a minimum grade of C.

COMM A450 Communication and Leadership **3 Credits**
Examines the study of leadership with an emphasis on the communication dimensions of the theories, processes and practices of leadership. Analyzes and evaluates leadership strategies and tactics, as well as the interaction of communication and leadership.
Prerequisites: COMM A111 with a minimum grade of C or COMM A235 with a minimum grade of C or COMM A237 with a minimum grade of C or COMM A241 with a minimum grade of C.

Communication Sciences & Disorders (CSD)

Courses

CSD A104 Speech and Language Development for the Speech-Language Pathology Assistant **3 Credits**
Presents the normal process of speech and language development and the relationship to social, physical, psychological, and cognitive development. Addresses multicultural factors and influences. Reviews methods for screening these skills within the Speech-Language Pathology Assistant's scope of practice.

CSD A105 Phonetics for Speech-Language Pathology Assistants **2 Credits**
Introduces the study of speech sounds used in the production of spoken language. Emphasizes sound to symbol transcription using the International Phonetic Alphabet (IPA), and the development of transcription speed and accuracy. Introduces anatomy and physiology of the speech mechanism for the purpose of describing speech sound production.

CSD A106 Anatomy & Physiology of Speech & Hearing for the Speech-Language Pathology Assistant **2 Credits**
Explores the basic anatomy, physiology and neurology relevant to communication and swallowing. Focuses on the systems of respiration, phonation, articulation, and resonance.

CSD A201 Foundations of Communication Disorders **3 Credits**
Examines common developmental and acquired speech, language and hearing disorders, including etiologies, characteristics, prevention, assessment and intervention. Considers multicultural communication differences. Describes the interdisciplinary nature of the field of communication disorders, particularly as it relates to educational, health and developmental settings.

CSD A211 Speech Disorders and Intervention for the Speech-Language Pathology Assistant **3 Credits**
Focuses on intervention approaches and strategies that can be used with specific age groups across the lifespan. Provides instruction on interventions for articulation, phonological, fluency, voice and swallowing/feeding disorders in individual and group settings.
Prerequisites: CSD A104 with a minimum grade of C or concurrent enrollment and CSD A105 with a minimum grade of C or concurrent enrollment and CSD A201 with a minimum grade of C or concurrent enrollment.

CSD A212 Language Disorders and Intervention for the Speech-Language Pathology Assistant **3 Credits**
Focuses on intervention approaches and strategies for developmental and acquired language disorders across the lifespan.
Prerequisites: CSD A104 with a minimum grade of C and CSD A201 with a minimum grade of C.

CSD A213 Clinical Methods, Documentation and Professional Issues for the Speech-Language Pathology Assistant **2 Credits**
Covers the development and use of therapeutic materials based on knowledge of communication, cognitive and swallowing disorders as well as developmental and behavioral models. Includes various approaches to documentation. Explores the Speech-Language Pathology Assistant's scope of practice, ethical considerations across practice settings, licensure and registration, workplace skills, universal precautions, and culturally sensitive practice.
Prerequisites: CSD A211 with a minimum grade of C and CSD A212 with a minimum grade of C.

CSD A220 Communication Disorders in Low Incidence Populations for the Speech-Language Pathology Assistant **2 Credits**
Introduces intervention strategies for communication disorders found in low incidence populations (such as craniofacial anomalies, hearing disorders, genetic and metabolic disorders, and syndromes).
Prerequisites: CSD A211 with a minimum grade of C and CSD A212 with a minimum grade of C.

CSD A221 Assistive & Augmentative Communication for the Speech-Language Pathology Assistant **2 Credits**
Explores the use of augmentative and alternative communication (AAC) terminology, symbols, application of low versus high tech devices and intervention. Includes overview of populations using AAC and issues of motor and sensory impairments.

CSD A295 Speech-Language Pathology Assistant Practicum **1-6 Credits**
Supervised clinical experience in health care, clinic, agency or school settings. Addresses development of clinical skills, including professionalism, screening, implementation of prescribed therapy plans, data recording and documentation within the scope of practice as an SLPA. Emphasis on developing competencies for ethical and effective Speech-Language Pathology Assistant practice.
Special Note: A total of 6 credits must be completed in at least two different clinical settings to meet the major requirements of the Associate of Applied Science in Speech-Language Pathology Assistant.
Prerequisites: CSD A213 with a minimum grade of C or concurrent enrollment.

CSD A301 Anatomy and Physiology of Speech and Hearing **3 Credits**
Examines the anatomy and physiology of the systems involved in human communication and swallowing: respiration, phonation, articulation/resonance, nervous system, auditory system, and mastication/ deglutition. Examines the relationship between anatomy, physiology and disorders of communication.
Registration Restrictions: Department approval

CSD A302 Phonetics **3 Credits**
Explores the production, classification and transcription of speech sounds. Develops skills in transcription of speech at the vowel, consonant and single-word level as well as connected speech. Differentiates speech disorders from dialectic variations.
Registration Restrictions: Department approval

CSD A303 Language Development Across the Lifespan **3 Credits**
Explores the normal acquisition of language, including the components; the perceptual, social and cognitive bases; theories of language development; and how language evolves from infancy through adulthood. Explores the impact of second language learning and cultural influences on language development.
Registration Restrictions: Department approval

CSD A401 Phonology and Articulation Development and Disorders **3 Credits**
Explores articulation and phonological development as well as disorders in relation to acquisition, multicultural factors, appraisal, differential diagnosis and remediation.
Registration Restrictions: Department approval
Prerequisites: CSD A302 with a minimum grade of C or concurrent enrollment.

CSD A402 Audiology **3 Credits**
Explores normal hearing, causes and effects of impaired hearing, hearing testing procedures, and management of hearing loss.
Registration Restrictions: Department approval

CSD A403 Aural Rehabilitation **3 Credits**
Integrates the science of hearing loss identification and management with specific emphasis on the strategies speech-language and hearing professionals use in providing support and counseling. Develops habilitation/rehabilitation plans to maximize auditory skills and promote communication success for children and adults.
Registration Restrictions: Department approval

CSD A410 Speech Science **3 Credits**
Explores the physiological and acoustic correlates of the speech production mechanism. Introduces speech science theory, instrumentation and measurement.
Registration Restrictions: Department approval

CSD A411 Neurological Foundations of Speech and Hearing **3 Credits**
Explores neuroanatomy and neurophysiology, including current research of nervous system structures and functions important for speech and language. Critically analyzes current theories of the neurophysiology utilized in speech and language.
Registration Restrictions: Department approval
Prerequisites: BIOL A100 with a minimum grade of C or BIOL A111 with a minimum grade of C or BIOL A112 with a minimum grade of C or CSD A301 with a minimum grade of C.

CSD A695A Beginning Internship in Speech-Language Pathology **1-8 Credits**
Supervised beginning internship in speech-language pathology in the UAA Speech-Language Clinic. Emphasizes development of clinical competencies in the areas of Evaluation, Intervention, and Interaction and Personal Qualities as defined by the American Speech-Language and Hearing Association 2014 Standards and Implementation Procedures for the Certificate of Clinical Competence in Speech-Language Pathology.
Registration Restrictions: Graduate standing and department approval

CSD A695B Advanced Internship in Speech-Language Pathology **1-4 Credits**
Provides supervised internship experiences in speech-language pathology in a variety of settings with clients/patients across the lifespan who experience diverse communication and/or swallowing disorders. Emphasizes development of clinical competencies in the areas of Evaluation, Intervention, and Interaction and Personal Qualities as defined by the American Speech-Language and Hearing Association 2014 Standards and Implementation Procedures for the Certificate of Clinical Competence in Speech-Language Pathology.
Special Note: May be repeated for a maximum of 16 credits.
Registration Restrictions: Graduate standing and department approval
Prerequisites: CSD A695A with a minimum grade of B.

Community Education (CED)

Courses

CED A133 Beginning Fly Fishing **1 Credit**
Introduces the basics of fly fishing, including selection of equipment, types of line, flies, and techniques geared toward local lakes and streams.

Computer Information & Office Systems (CIOS)

Courses

CIOS A101 Keyboarding **3 Credits**
Introduces keyboarding skills and emphasizes correct techniques and development of speed, accuracy, and proofreading. Introduces word processing concepts to produce personal and business letters, tables, and reports.
Special Note: Credit will not be counted for both CIOS A101 and (CIOS A101A and CIOS A101B and CIOS A101C).

CIOS A101A Keyboarding A: Basic Keyboarding **1 Credit**
Introduces the keyboard alphabet, number, and symbol keys. Emphasizes techniques and mechanics of keyboarding by touch.
Special Note: Credit will not be counted for both CIOS A101 and (CIOS A101A and CIOS A101B and CIOS A101C).

CIOS A101B Keyboarding B: Business Documents I **1 Credit**
Introduces keyboarding format for basic business correspondence, reports and tables using a word processing program. Continues to develop keyboarding speed, accuracy and proofreading.
Special Note: Credit will not be counted for both CIOS A101 and (CIOS A101A and CIOS A101B and CIOS A101C).
Registration Restrictions: CIOS A101A or 30 net WPM keyboarding skills recommended

CIOS A101C Keyboarding C: Business Documents II **1 Credit**
Builds on concepts introduced in CIOS A101B to create intermediate correspondence, resumes, reports and tables in a word processing program and continues to develop keyboarding speed and accuracy.
Special Note: Credit will not be counted for both CIOS A101 and (CIOS A101A and CIOS A101B and CIOS A101C).
Prerequisites: CIOS A101B with a minimum grade of C.

CIOS A113 Operating Systems: MS Windows **1 Credit**
Introduces currently supported versions of operating systems. Includes file and disk management, the control panel, desktop, utilities, windows setup, and maintenance.

CIOS A125A Electronic Communications I: MS Outlook **1 Credit**
Introduces electronic communication and time management features of Microsoft Outlook.

CIOS A130A Word Processing I: MS Word **1 Credit**
Introduces fundamentals, concepts and applications of word processing. Students learn basic commands needed to create, format, edit and print documents.
Registration Restrictions: Basic keyboarding skills of 20 WPM recommended

CIOS A135A Spreadsheets I: MS Excel **1 Credit**
Introduces the fundamentals of spreadsheet design and use, including basic commands, formulas, and functions. Covers insertion of charts, objects and hyperlinks.
Registration Restrictions: Basic keyboarding skills and file management knowledge recommended

CIOS A140A Databases I: MS Access **1 Credit**
Introduces the fundamentals of creating a relational database including tables, queries, forms and reports.
Registration Restrictions: Basic keyboarding and file management skills recommended

CIOS A146 Internet Concepts and Applications **1 Credit**
Introduces Internet concepts, tools and applications. Includes use of electronic mail; search strategies for research, academic and personal use; studies security and ethics issues; and new Internet technologies.
Registration Restrictions: Basic keyboarding and file management skills recommended

CIOS A150A Presentations: MS PowerPoint **1 Credit**
Introduces software and design techniques for creating professional presentations that include a variety of effects such as transition, animation, sound and graphics.
Registration Restrictions: Basic keyboarding and file management skills recommended

CIOS A152A Digital Imaging Concepts and Applications: Photoshop **3 Credits**
Introduces the fundamentals, concepts, and applications of digital imaging techniques, including basic digital design fundamentals, enhancing images, and creating images for use in print or on the web.
Prerequisites: CIOS A130A with a minimum grade of D or concurrent enrollment and CIOS A146 with a minimum grade of D or concurrent enrollment.

CIOS A153B Website Design: Dreamweaver **3 Credits**
Introduces fundamentals of web design using the Dreamweaver application. Emphasizes sound design principles and the use of CSS for formatting and layout.
Prerequisites: CIOS A130A with a minimum grade of D and CIOS A146 with a minimum grade of D and CIOS A152A with a minimum grade of D or concurrent enrollment.

CIOS A161A Business Writing Strategies **2 Credits**
Introduces proofreading techniques used in business communication. Develops skills in proofreading documents for content, usage, grammar, punctuation, spelling and format.
Registration Restrictions: Proof of placement into WRTG A111 and keyboarding skills of 30 net words per minute or higher.

CIOS A165 Office Procedures **3 Credits**
Introduces the duties and responsibilities of office employees in the following areas: mail, records management, office communications, reprographics, travel, meetings, conferences and employment procedures.
Registration Restrictions: Basic keyboarding, word processing and file management skills recommended

CIOS A230A Word Processing II: MS Word **1 Credit**
Covers skills necessary to create and edit business documents such as letters, memos, reports, basic tables and charts, outlines, mail merges, and column text. Examines sharing work using comments, revisions and merging.
Registration Restrictions: Keyboarding skills of 30 net WPM and basic Microsoft Word skills recommended

CIOS A235A Spreadsheets II: MS Excel **1 Credit**
Presents concepts and techniques for using Excel to solve problems and make decisions. Topics include financial functions; multiple worksheets and workbooks; creating, sorting and querying a table; and templates.
Registration Restrictions: CIOS A135A recommended

CIOS A240A Databases II: MS Access **2 Credits**
Presents concepts and techniques for using Access databases to solve problems and make decisions. Includes advanced features of queries, forms, filters, relationships, and integration with other applications.
Prerequisites: CIOS A140A with a minimum grade of D.

CIOS A255 Multimedia Applications **3 Credits**
Applies computer skills to learn how to manipulate sound, digital video, and digital photography to create a multimedia presentation.
Prerequisites: CIOS A130A with a minimum grade of D and CIOS A135A with a minimum grade of D and CIOS A150A with a minimum grade of D.

CIOS A295 Office Internship **1 Credit**
Places students in business offices related to their educational program and occupational objectives for a minimum of 45 hours of on-the-job work experience.
Registration Restrictions: Minimum of 12 CIOS credits and instructor permission
Prerequisites: CIOS A165 with a minimum grade of C.

Computer & Networking Technology (CNT)

Courses

CNT A160 PC Operating Systems **3 Credits**
Develops basic understanding of command line, desktop, and server operating systems. Includes computer programming, architecture, and hardware necessary to understand the operating system interactions.

CNT A162 PC Architecture and Building **3 Credits**
Develops skills required to evaluate, install and troubleshoot software and hardware computer equipment. Introduces architecture and hardware associated with microcomputer operation, including, but not limited to, motherboards, CPUs, chipsets, memory, buses, expansion slots and resource allocations.

CNT A165 Customer Service Fundamentals **1 Credit**
Introduces basic customer service principles, including relationships, perceptions, telephone techniques, quality, ethics, record keeping, interpersonal relationships, and teamwork.

CNT A168 Computer User Support and Help Desk **3 Credits**
Provides an overview of user support systems and help desk functions in an enterprise IT environment. Examines user support from the perspective of end users and develops skills for ethical customer service, critical thinking, troubleshooting and decision-making. Includes identifying typical problems and needs assessment for installation, training and documentation.

CNT A170 CCNA 1 **4 Credits**
Covers the architecture, structure, functions and components of the Internet and other computer networks. Covers a basic understanding of how networks operate and how to build simple local area networks (LAN), perform basic configurations for routers and switches, and implement Internet Protocol (IP). The first of three Cisco Networking Academy courses covering the material for the Cisco Certified Networking Associate (CCNA) certification.

CNT A180 PC Peripherals, Storage and A+ Certification **4 Credits**
Covers PC operating systems, peripheral devices, auxiliary storage devices and the interfaces used to connect them to the personal computer. Also covers the fundamental topics necessary to prepare for the CompTIA A+ Certification exams.

CNT A183 Local Area Networks **3 Credits**
Introduces the core components of local area networks. Presents essentials such as network addressing, core protocols, network services, related utilities, and cybersecurity. Covers the fundamental topics necessary to prepare for the CompTIA Network+ exam.

CNT A210 PC Technician Fundamentals **3 Credits**
Introduces principles of personal computer hardware-software maintenance and troubleshooting. Gives students equivalent experience of a PC technician who has been working for six months.

CNT A240 Industry PC Configuration Essentials **2 Credits**
Introduces personal computer configuration essentials. Includes installation, configuration and support of personal computers in a mixed enterprise environment.
Prerequisites: CNT A170 with a minimum grade of C or CNT A183 with a minimum grade of C.

CNT A241 Administering and Supporting Industry Network Infrastructure **3 Credits**
Provides an introduction to network infrastructure in a mixed enterprise environment.
Prerequisites: CNT A240 with a minimum grade of C.

CNT A242 Industry Network Directory Configuration **3 Credits**
Provides an introduction for installing, configuring and deploying application services in an enterprise- networked environment.
Prerequisites: CNT A241 with a minimum grade of C.

CNT A243 Industry Application Infrastructure **3 Credits**
Provides an introduction for application support and deployment in an enterprise-networked environment.
Prerequisites: CNT A241 with a minimum grade of C or CNT A242 with a minimum grade of C.

CNT A261 CCNA 2 **4 Credits**
Covers the architecture, components, and operations of routers and switches in small networks and introduces wireless local area networks (WLAN) and security concepts. Demonstrates how to configure and troubleshoot routers and switches for advanced functionality using security best practices and resolve common issues with protocols in both IPv4 and IPv6 networks. The second of three Cisco Networking Academy courses covering the material for the Cisco Certified Networking Associate (CCNA) certification.
Registration Restrictions: Students may enroll concurrently with CNT A170 when offered in half-semester format, but must meet prerequisite grade in CNT A170 when CNT A261 begins.
Prerequisites: CNT A170 with a minimum grade of C or concurrent enrollment.

CNT A262 Computer Technical Support **2 Credits**
Develops skills necessary for evaluating and implementing various technical support functions, including hardware and software needs assessments, training development, preventive maintenance, and effective communication and documentation.
Prerequisites: CNT A165 with a minimum grade of D.

CNT A264 Introduction to Information Security **3 Credits**
Provides students with an understanding of the core concepts that relate to the practice of network security. This course will help prepare students for the CompTIA Security+ exam.
Prerequisites: CNT A261 with a minimum grade of D.

CNT A270 CCNA 3 **4 Credits**
Describes the architecture, components, operations, and security to scale for large, complex networks, including wide area network (WAN) technologies. Emphasizes network security concepts and introduces network virtualization and automation. Demonstrates how to configure, troubleshoot, and secure enterprise network devices and understand how application programming interfaces (API) and configuration management tools enable network automation. The final of three Cisco Networking Academy courses covering the material for the Cisco Certified Networking Associate (CCNA) certification.
Registration Restrictions: Students may enroll concurrently with CNT A261 when offered in half-semester format, but must meet prerequisite grade in CNT A261 when CNT A270 begins.
Prerequisites: CNT A261 with a minimum grade of C or concurrent enrollment.

CNT A271 CCNA 4 **4 Credits**
This is the fourth of four Cisco Networking Academy courses covering the material for the Cisco Certified Networking Associate (CCNA) Routing and Switching certification. Discusses, configures and troubleshoots the WAN technologies and network services required by converged applications in a complex network.
Registration Restrictions: Students may enroll concurrently with CNT A270 when offered in half-semester format, but must meet prerequisite grade in CNT A270 when CNT A271 begins.
Prerequisites: CNT A270 with a minimum grade of C or concurrent enrollment.

CNT A275 Information Technology Project Management **2 Credits**
Introduces Information Technology (IT) project management fundamentals. Develops skills required to work with stakeholders and IT processes. Includes skills in leadership and team participation. Covers IT project planning, design, team skills, proposals, implementation, reporting and completion.
Registration Restrictions: Satisfactory completion of 12 CNT credit hours with a minimum grade of C.
Prerequisites: WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C or WRTG A2W with a minimum grade of C.

CNT A276 Individual Technical Project **1-3 Credits**
Covers development, implementation, and completion of a project based on a relevant technological issue. Student works closely with faculty to produce an end product and report.
Special Note: Faculty permission and working knowledge of CNT topics required.
Prerequisites: CNT A261 with a minimum grade of D.

CNT A280 Server Operating Systems **3 Credits**
Develops server operating system basics. Includes installation, troubleshooting, creation and administration of user accounts and resources, and remote and internet accounts.
Special Note: A CompTIA Network + Certificate may be substituted for the CNT A183 prerequisite, with department approval.
Prerequisites: CNT A183 with a minimum grade of D and CNT A261 with a minimum grade of D.

CNT A282 Industry Workplace Experience **1-3 Credits**
Provides supervised workplace experience in industry settings. Integrates advanced-level knowledge and practice to demonstrate skill competencies.
Special Note: Requires instructor permission and successful completion of 12 credits in the CSNT program.
Registration Restrictions: Faculty permission.

CNT A290 Selected Topics in Information Technology **1-4 Credits**
Covers various intermediate to advanced topics in information technology.
Special Note: Prerequisites vary by topic. May be repeated with a change in subtitle.

CNT A390 Selected Topics in Computer and Networking Technology **1-4 Credits**
Offers selected topics in computers and networking pertaining to state-of-the-art technology and trends. Course content is determined by current trends, new technologies, and student and employer needs.
Special Note: Prerequisites vary by topic. May be repeated with a change in subtitle.

Computer Science & Computer Engineering (CSCE)

Courses

CSCE A101 Introduction to Computer Science **3 Credits**
Provides a broad overview of computer science and programming. Introduces programming, algorithmic problem solving and basic concepts in hardware. Demonstrates the role computation can play in solving useful problems, and presents programming concepts that enable students to write simple programs.
Special Note: This course is intended for students with little or no programming experience.
Prerequisites: ALEKS Overall Test 1 with a score of 055 or ALEKS Overall Test 2 with a score of 055 or ALEKS Overall Test 3 with a score of 055 or ALEKS Overall Test 4 with a score of 055 or ALEKS Overall Test 5 with a score of 055 or MATH A105 with a minimum grade of C or MATH A151 with a minimum grade of C or concurrent enrollment or MATH A152 with a minimum grade of C or concurrent enrollment or MATH A155 with a minimum grade of C or concurrent enrollment or MATH A221 with a minimum grade of C or concurrent enrollment or MATH A251 with a minimum grade of C or concurrent enrollment or MATH A251F with a minimum grade of C or concurrent enrollment or MATH A252 with a minimum grade of C or concurrent enrollment or MATH A252F with a minimum grade of C or concurrent enrollment or MATH A253 with a minimum grade of C or concurrent enrollment.

CSCE A115 Introduction to Data Science **3 Credits**
Introduces foundational knowledge in data science, focusing on skills and concepts that will prepare students for further studies in artificial intelligence (AI) and machine learning (ML). Emphasizes practical data analysis, statistical concepts, and an understanding of algorithms preparing students to tackle real-world data science problems.
Prerequisites: MATH A055 with a minimum grade of C or MATH A060 with a minimum grade of C or MATH A105 with a minimum grade of C or concurrent enrollment or MATH A151 with a minimum grade of C or concurrent enrollment or MATH A152 with a minimum grade of C or concurrent enrollment or MATH A155 with a minimum grade of C or concurrent enrollment or MATH A251 with a minimum grade of C or concurrent enrollment or MATH A251F with a minimum grade of C or concurrent enrollment or MATH A252 with a minimum grade of C or concurrent enrollment or MATH A252F with a minimum grade of C or concurrent enrollment or MATH A253 with a minimum grade of C or concurrent enrollment or ALEKS Overall Test 1 with a score of 030 or ALEKS Overall Test 2 with a score of 030 or ALEKS Overall Test 3 with a score of 030 or ALEKS Overall Test 4 with a score of 030 or ALEKS Overall Test 5 with a score of 030.

CSCE A201 Computer Programming I **4 Credits**
Introduces fundamental computer programming techniques and problem solving. Covers basic syntax; sequential, branching, and iterative execution; arrays, functions, structures, pointers, and dynamic memory allocation/deallocation.
Special Note: Students must register concurrently for lab section.
Prerequisites: (CSCE A101 with a minimum grade of C or ES A261 with a minimum grade of C) and (MATH A105 with a minimum grade of C or MATH A151 with a minimum grade of C or concurrent enrollment or MATH A152 with a minimum grade of C or concurrent enrollment or MATH A155 with a minimum grade of C or concurrent enrollment or MATH A221 with a minimum grade of C or concurrent enrollment or MATH A251 with a minimum grade of C or concurrent enrollment or MATH A251F with a minimum grade of C or concurrent enrollment or MATH A252 with a minimum grade of C or concurrent enrollment or MATH A252F with a minimum grade of C or concurrent enrollment or MATH A253 with a minimum grade of C or concurrent enrollment).
Corequisites: CSCE A201L.

CSCE A211 Computer Programming II **4 Credits**
Covers object-oriented programming concepts including real-world applications built using objects, classes, inheritance, hierarchies, polymorphism, recursion, unit testing, generics, linked lists, vectors, iterators, event processing and exception handling.
Registration Restrictions: Students must concurrently register for lab section.
Prerequisites: CSCE A201 with a minimum grade of C.
Corequisites: CSCE A211L.

CSCE A222 Object-Oriented Programming I **3 Credits**
In-depth coverage of object-oriented programming in the Java programming language. Topics include inheritance, abstraction, interfaces, references, polymorphism, dynamic binding, class hierarchies, container classes, random access file input/output (I/O), serializability, graphical applications, event handling, Unified Modeling Language (UML) and object-oriented design.
Prerequisites: CSCE A201 with a minimum grade of C.

CSCE A241 Computer Hardware Concepts **4 Credits**
Analysis and design of electronic devices used as building blocks for construction of simple combinational and sequential digital systems. Presents formats for data storage, number systems and alphanumeric codes, and methods of implementing logical and arithmetic operations within computers. Relates hardware components' capabilities and limitations to design requirements for computer processing, memory and control functions.
Registration Restrictions: Students must register concurrently for lab section.
Crosslisted With: EE A241
Prerequisites: CSCE A201 with a minimum grade of C or CSE A205 with a minimum grade of C.
Corequisites: CSCE A241L.

CSCE A248 Computer Organization and Assembly Language Programming **3 Credits**
Covers organization and operation of a computer's processor, including registers, memory, input/output (I/O) and control. Assembly language programming with emphasis placed on hardware/software interface and computer design.
Prerequisites: CSCE A241 with a minimum grade of C or EE A241 with a minimum grade of C.

CSCE A302 Design Patterns in Java **3 Credits**
Introduces Java as a modern object-oriented and portable programming language. Illustrates Java's capabilities with design patterns as solutions to recurring problems in developing object-oriented software. Includes a detailed examination of significant design patterns and selected programming projects in a current object-oriented language. Introduces modern, parallel computing techniques, such as threading.
Registration Restrictions: Admission to the Bachelor of Science in Computer Science, Bachelor of Science in Computer Systems Engineering, or Bachelor of Science in Electrical Engineering
Prerequisites: CSCE A211 with a minimum grade of C.

CSCE A305 Android Programming **3 Credits**
Covers Android development concepts and programming. Topics include development environments, design issues, interface and input/output (I/O), code development, and publication.
Registration Restrictions: Admission to BS Computer Science, BS Computer Systems Engineering, or BS Electrical Engineering, or instructor approval
Prerequisites: CSCE A222 with a minimum grade of C.

CSCE A311 Data Structures and Algorithms **3 Credits**
Representation and organization of digital information in the form of effective and efficient data structures, manipulation of data structures in a procedural fashion, and the analysis and evaluation of various algorithms. The following topics will be covered: Abstract Data Types (ADT), arrays, tables, linked lists, stacks, queues, trees, sorting, searching, graphs, hashing, spanning trees, disjoint sets, parallel algorithms, and heaps.
Registration Restrictions: Admission to the Bachelor of Science in Computer Science, Bachelor of Science in Computer Systems Engineering, or Bachelor of Science in Electrical Engineering; or instructor approval
Prerequisites: CSCE A211 with a minimum grade of C.

CSCE A321 Operating Systems **3 Credits**
Covers all aspects of resource management and abstraction required to support application programs including: basic security, processes and threads, processor scheduling, synchronization, memory management, virtual memory, virtual machines, device drivers and Input/Output (I/O), and file systems.
Prerequisites: CSCE A248 with a minimum grade of C and CSCE A311 with a minimum grade of C.

CSCE A331 Programming Language Concepts **3 Credits**
Covers theoretical foundations needed to design and implement modern programming languages, including syntax, type systems, semantics, and memory structures. Comparison of several programming languages in different paradigms such as procedural, functional, logic, and scripting languages.
Prerequisites: CSCE A248 with a minimum grade of C and CSCE A311 with a minimum grade of C.

CSCE A342 Digital Circuits Design **3 Credits**
Digital system design using integrated circuits and field-programmable gate arrays (FPGAs). Design and discussion of data path and control units, finite state machines, and timing analysis. Digital circuit simulation and electronic schematic creation.
Registration Restrictions: Admission to BS Computer Science, BS Computer Systems Engineering, or BS Electrical Engineering, or instructor approval
Prerequisites: CSCE A241 with a minimum grade of C or EE A241 with a minimum grade of C.

CSCE A351 Automata, Algorithms and Complexity **3 Credits**
Study of the theory of computing and algorithm analysis and design. Topics include context-free grammars and parsing, finite automata and regular languages, pushdown automata and context-free grammars, deterministic and nondeterministic Turing machines, decidability and computability. In the algorithm domain, the course provides and introduction to analysis and complexity of algorithms, searching/sorting algorithms, mathematical algorithms, and graph theoretic algorithms. Introduction to complexity theory.
Registration Restrictions: Admission to the Bachelor of Science in Computer Science or the Bachelor of Science in Computer Systems Engineering or the Bachelor of Science in Electrical Engineering or instructor approval
Prerequisites: CSCE A311 with a minimum grade of C and (MATH A261 with a minimum grade of C or (MATH A265 with a minimum grade of C and MATH A306 with a minimum grade of C)).

CSCE A360 Database Systems **3 Credits**
Covers the application of data modeling, relational database concepts and design, normalization theory, and structured query language. Covers underlying data structures and implementations of data processing architectures.
Prerequisites: CSCE A211 with a minimum grade of C.

CSCE A365 Computer Networks **3 Credits**
Introduces network architectures, layered protocols, Internet protocols and network service interfaces. Emphasis is on design and implementation of networking hardware, including routers, bridges, switches, hubs and repeaters. Covers local networks, addressing, routing, flow control, queuing, routing protocols and packet loss.
Registration Restrictions: Admission to the Bachelor of Science in Computer Science or the Bachelor of Science in Computer Systems Engineering or the Bachelor of Science in Electrical Engineering or instructor approval
Prerequisites: CSCE A311 with a minimum grade of C.

CSCE A375 Fundamentals of Cryptocurrency Technologies **3 Credits**
Introduces cryptographic primitives, data structures, and mining incentives underlying many cryptocurrencies. Topics include: cryptographic hash functions, Merkle trees, Poisson processes, Markov chains, Bloom filters, selfish mining, double spend attacks, and scaling issues. Security and privacy aspects of cryptocurrencies covered as well.
Prerequisites: CSCE A311 with a minimum grade of C.

CSCE A381 Computer Graphics **3 Credits**
Creation of computer-generated images on programmable 3-D graphics hardware. Color, lighting, textures, hidden surfaces, 3-D geometric transformations, curve and surface representations, 2-D and 3-D user interfaces, and the visual modeling of physical phenomena.
Registration Restrictions: Admission to the Bachelor of Science in Computer Science or the Bachelor of Science in Computer Systems Engineering or the Bachelor of Science in Electrical Engineering, or instructor approval
Prerequisites: CSCE A311 with a minimum grade of C and (MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C).

CSCE A395 Internship in Computing **3 Credits**
Application of computer science or computer engineering skills in a professional work setting.
Special Note: May be taken up to three times, but only 3 credits may be applied toward CS or CSE major requirements.
Registration Restrictions: Admission to BS Computer Science, BS Computer Systems Engineering, or BS Electrical Engineering, or instructor approval
Prerequisites: CSCE A211 with a minimum grade of C.

CSCE A401 Software Engineering **3 Credits**
Extends the ideas of software design and development from the introductory programming sequence to encompass the problems encountered in large-scale programs. Topics include software lifecycle models for developing large systems, advanced issues in object-oriented programming, design patterns, software development tools, project management principles and principles of interface design.
Registration Restrictions: Admission to BS Computer Science, BS Computer Systems Engineering, or BS Electrical Engineering, or instructor approval
Prerequisites: CSCE A311 with a minimum grade of C.

CSCE A405 Artificial Intelligence **3 Credits**
Introduces the basic concepts of artificial intelligence (AI). Topics include intelligent agents; heuristics, local and adversarial search; first-order logic and knowledge of representation and machine learning.
Special Note: Not available for credit to students who have completed CSCE A605.
Registration Restrictions: Admission to BS Computer Science, BS Computer Systems Engineering, or BS Electrical Engineering, or instructor approval
May Be Stacked With: CSCE A605
Prerequisites: CSCE A311 with a minimum grade of C.

CSCE A412 Evolutionary Computing **3 Credits**
Introduces students to subjects in the broad field of evolutionary computing, including genetic algorithms, evolution strategies, evolutionary programming and genetic programming. Emphasis will be on the design, implementation, testing, debugging and verification of correct programs.
Registration Restrictions: Admission to BS Computer Science, BS Computer Systems Engineering, or BS Electrical Engineering, or instructor approval
Special Note: Not available for credit to students who have completed CSCE A612.
May Be Stacked With: CSCE A612
Prerequisites: CSCE A311 with a minimum grade of C.

CSCE A415 Machine Learning **3 Credits**
In-depth survey of basic and advanced concepts of machine learning. Topics include linear discrimination; supervised, unsupervised and semi-supervised learning; multilayer perceptrons; maximum-margin methods; Monte Carlo methods; and reinforcement learning.
Registration Restrictions: Admission to BS Computer Science, BS Computer Systems Engineering, or BS Electrical Engineering, or instructor approval
Special Note: Not available for credit to students who have completed CSCE A615.
May Be Stacked With: CSCE A615
Prerequisites: CSCE A311 with a minimum grade of C and (STAT A253 with a minimum grade of C or STAT A307 with a minimum grade of C).

CSCE A448 Computer Architecture **3 Credits**
A quantitative approach to computer architecture and parallelism, which addresses both the software and hardware aspects of parallelism in modern computing systems. Specific emphasis will be placed on instruction-level, thread-level, data-level, task-level and request-level parallelism, and developing parallel application code in assembler and high-level languages for systems such as graphics processing units (GPUs).
Registration Restrictions: Admission to BS Computer Science, BS Computer Systems Engineering, or BS Electrical Engineering, or instructor approval
Prerequisites: CSCE A248 with a minimum grade of C.

CSCE A462 Data Mining **3 Credits**
Survey and application of techniques for data mining including classification, clustering and association rule mining. Covers rule-based, tree-based, statistical and regression approaches.
Special Note: Not available for credit to students who have completed CSCE A662.
May Be Stacked With: CSCE A662
Prerequisites: CSCE A360 with a minimum grade of C.

CSCE A465 Computer and Network Security **3 Credits**
Analyzes computer software and network vulnerabilities, as well as security mechanisms to detect and defend against system attacks, such as authentication, access control and cryptography. Includes vulnerabilities introduced in programming, web development, network protocol design, operating systems and databases. Legal and ethical issues concerning privacy, intellectual property and computer crime will be discussed in the context of case studies.
Special Note: Not available for credit to students who have completed CSCE A665.
Registration Restrictions: Admission to the Bachelor of Science in Computer Science, Bachelor of Science in Computer Systems Engineering, or Bachelor of Science in Electrical Engineering, or instructor approval
Prerequisites: CSCE A365 with a minimum grade of C and (ES A302 with a minimum grade of C or concurrent enrollment or STAT A253 with a minimum grade of C or concurrent enrollment or STAT A307 with a minimum grade of C or concurrent enrollment).

CSCE A467 Real-Time Embedded Systems **3 Credits**
Covers the design and programming of microcontroller-based embedded systems, emphasizing low-level hardware interaction using standard C and assembly language. Students will learn to develop real-time embedded applications and integrate hardware and software efficiently. Details strategies for power-efficient computing in embedded environments.
Crosslisted With: CSCE A467
Prerequisites: CSCE A248 with a minimum grade of C.

CSCE A470 Computer Science and Engineering Capstone Project **3 Credits**
Covers the application of computer science and computer engineering concepts, principles, and practices to develop an applied software or computer engineering project. Provides space for students to analyze, design, document, implement, and deliver a presentation and written report on a design project or software/hardware system of moderate complexity under the supervision of the instructor and/or other faculty. Includes a discussion of ethical, professional, and contemporary issues in technology and the impact of computing technology in a global and societal context.
Prerequisites: CSCE A365 with a minimum grade of C and (WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C or WRTG A2W with a minimum grade of C) and ((CSCE A351 with a minimum grade of C and CSCE A401 with a minimum grade of C) or (CSCE A311 with a minimum grade of C and CSCE A342 with a minimum grade of C and CSCE A448 with a minimum grade of C)) and PHIL A305 with a minimum grade of C or concurrent enrollment.
Attributes: UAA Integrative Capstone GER.

CSCE A485 Computer and Machine Vision **3 Credits**
Covers how computers perceive the visual world of humans. Includes image processing, segmentation, boundary detection, as well as identifying, reconstructing, and modeling objects from images and videos.
Special Note: Not available for credit to students who have completed CSCE A685.
Registration Restrictions: Admission to the Bachelor of Science in Computer Science, the Bachelor of Science in Computer Systems Engineering, the Bachelor of Science in Electrical Engineering, or instructor approval
May Be Stacked With: CSCE A685
Prerequisites: CSCE A311 with a minimum grade of C.

CSCE A490 Selected Topics in Computer Science and Computer Systems Engineering **3 Credits**
Advanced topics in computer science or computer systems engineering not taught in other CSCE course offerings.
Special Note: May be repeated for credit with change of subtitle. Not available for credit to students who have completed CSCE A690 with same subtitle.
Registration Restrictions: Admission to the Bachelor of Science in Computer Science, Bachelor of Science in Computer Systems Engineering, Bachelor of Science in Electrical Engineering, or instructor approval
May Be Stacked With: CSCE A690

CSCE A495 Computing Internship Project **3 Credits**
Application of computer science or computer engineering skills in a professional work setting. The student will analyze, design, develop and document a realistic computing project of moderate complexity under the supervision of a qualified professional who has agreed in advance to undertake this role.
Registration Restrictions: Admission to BS Computer Science, BS Computer Systems Engineering, or BS Electrical Engineering, or instructor approval.
Special Note: May be taken up to three times, but only 3 credits may be applied toward CS or CSE major requirements.
Prerequisites: CSCE A311 with a minimum grade of C.

CSCE A498 Individual Research **1-3 Credits**
Students will engage in an independent research project under the supervision of a faculty member. The result will be a paper or presentation prepared to publication standards.
Special Note: May be repeated up to a maximum of 6 credits.
Registration Restrictions: Junior or senior standing and admission to the Bachelor of Science in Computer Science, Bachelor of Science in Computer Systems Engineering, or Bachelor of Science in Electrical Engineering, or instructor approval

CSCE A601 Advanced Software Engineering **3 Credits**
Coverage of current methodologies used to develop large software systems. Topics include requirements, specification, design, implementation, testing, project management, formal methods, maintenance and evolution. Seminar discussion of classic and current research articles in software engineering.
Registration Restrictions: Graduate standing

CSCE A605 Advanced Artificial Intelligence **3 Credits**
Analysis, design and implementation of intelligent systems utilizing heuristics, local and adversarial search, first-order logic, knowledge representation techniques, and machine learning algorithms. Students will review published artificial intelligence research, write a research paper, and present research findings in a public forum.
Special Note: Not available for credit to students who have completed CSCE A405.
Registration Restrictions: Graduate standing
May Be Stacked With: CSCE A405

CSCE A612 Advanced Evolutionary Computing **3 Credits**
Broad coverage of the field of evolutionary computing, including genetic algorithms, evolution strategies, evolutionary programming and genetic programming. Emphasis will be on the design, implementation, testing, debugging and verification of correct programs. Graduate students will be required to complete a literature review of recent research in evolutionary computation, write the results of that review in a research summary paper and complete a presentation of these findings in a public forum.
Special Note: Not available for credit to students who have completed CSCE A412.
Registration Restrictions: Graduate standing
May Be Stacked With: CSCE A412

CSCE A615 Advanced Machine Learning **3 Credits**
Topics include linear discrimination; supervised, unsupervised and semi-supervised learning; multilayer perceptron; maximum-margin methods; Monte Carlo simulation; and reinforcement learning. Students are required to implement a research project that applies machine learning technique(s) to a unique and original data set, or to develop a technique that combines or modifies one or more machine learning algorithms.
Special Note: Not available for credit to students who have completed CSCE A415.
Registration Restrictions: Graduate standing
May Be Stacked With: CSCE A415

CSCE A662 Advanced Data Mining **3 Credits**
Surveys and describes application of techniques for data mining including classification, clustering and association rule mining. Covers rule-based, tree-based, statistical and regression approaches. Requires a project involving an existing data set, including integration, formatting, conceptualization, hypothesis testing, analysis, evaluation and presentation of results.
Special Note: Not available for credit to students who have completed CSCE A462.
Registration Restrictions: Graduate standing
May Be Stacked With: CSCE A462

CSCE A665 Advanced Computer and Network Security **3 Credits**
Analyzes computer software, network vulnerabilities and security mechanisms to detect and defend against system attacks. Discusses legal and ethical issues concerning privacy, intellectual property and computer crime. Students will be required to complete a research paper in computer and network security and complete a presentation of the research paper in a public forum.
Special Note: Not available for credit to students who have completed CSCE A465.
Registration Restrictions: Graduate standing
May Be Stacked With: CSCE A465

CSCE A671 Research Methods in Computer Science and Engineering **3 Credits**
Covers skills and research methods utilized in computer science and engineering research, including empirical and theoretical research. Discusses the steps in conducting a literature review, writing research proposals and papers, writing a thesis, hypothesis testing, delivering a research presentation, and ethical conduct.
Registration Restrictions: Graduate standing

CSCE A685 Advanced Computer and Machine Vision **3 Credits**
Covers how computers perceive the visual world of humans. Includes image processing, segmentation, boundary detection, as well as identifying, reconstructing, and modeling objects from images and videos.
Special Note: Not available for credit to students who have completed CSCE A485.
Registration Restrictions: Graduate standing
May Be Stacked With: CSCE A485

CSCE A690 Selected Topics in Computer Science and Computer Systems Engineering **3 Credits**
Examines advanced topics in computer science and computer science engineering. A research summary paper and research presentation is required.
Special Note: May be repeated once with change of subtitle. Not available for credit to students who have completed CSCE A490 with same subtitle.
Registration Restrictions: Graduate standing or instructor approval
May Be Stacked With: CSCE A490

CSCE A695 Professional Internship **3 Credits**
Applies data science and/or data engineering skills in a professional work setting. Arranges assignments and projects with cooperating organizations and agencies.
Registration Restrictions: Graduate standing and instructor approval
Crosslisted With: EE A695 and GIS A695

CSCE A698 Individual Research **3 Credits**
Students will engage in independent research projects under the supervision of a faculty member. The result will be a research paper prepared to publication standards with the goal of submission for publication in a refereed journal or conference.
Special Note: May be repeated for a maximum of 6 credits.
Registration Restrictions: Graduate standing and instructor permission

CSCE A698A Project **3 Credits**
Arranges a project among the advisor, graduate advisory committee and student to solve a practical computer science or computer engineering problem.
Special Note: May be repeated once for credit.
Registration Restrictions: Graduate standing or instructor approval

CSCE A699 Thesis **1-6 Credits**
Independent research conducted under the supervision of a thesis committee. Students must investigate a state-of-the-art computer engineering or computer science research topic, write a detailed proposal, identify a thesis advisor, obtain the advisor's approval to conduct the proposed research, complete the research and write a thesis that is approved by the committee.
Special Note: A maximum of 6 credits may be applied toward degree requirements for the MS in Computer Engineering and Computer Science.
Registration Restrictions: Admission to the MS in Computer Engineering and Computer Science program and permission of thesis advisor.

Computer Science (CS)

Courses

CS A109 Computer Programming (Languages Vary) **3 Credits**
Problem analysis and solution using a selected programming language.
Special Note: May be repeated twice for credit with a change in language.
Registration Restrictions: If prerequisite is not satisfied, appropriate SAT or ACT scores or approved UAA placement test required.
Prerequisites: MATH A105 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A211 with a minimum grade of C or MATH A212 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C.

Computer Systems Engineering (CSE)

Courses

CSE A205 Introduction to C Programming for Engineers **3 Credits**
Introduction to C programming for engineers. Students will learn a programming language that can be used in many aspects of the engineering field, specifically with applications interfacing with hardware devices. Students will gain basic programming skills, including variables, functions, structures, control structures, and conditional statements with applied reinforcement in engineering applications. Projects will focus on engineering applications in different fields.
Prerequisites: (MATH A151 with a minimum grade of D and MATH A152 with a minimum grade of D) or MATH A155 with a minimum grade of D or MATH A211 with a minimum grade of D or MATH A212 with a minimum grade of D or MATH A221 with a minimum grade of D or MATH A251 with a minimum grade of D or MATH A251F with a minimum grade of D or MATH A252 with a minimum grade of D or MATH A252F with a minimum grade of D or MATH A253 with a minimum grade of D.

Construction Management (CM)

Courses

CM A163 Building Construction Cost Estimating **3 Credits**
Presents methods and techniques for preparing accurate cost estimates for building construction projects. Emphasizes quantity takeoffs, unit pricing, productivity factors, bidding and negotiation procedures, and cost reporting.
Prerequisites: AET A101 with a minimum grade of C and AET A102 with a minimum grade of C and (MATH A105 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A211 with a minimum grade of C or MATH A212 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C).

CM A201 Construction Project Management I **3 Credits**
Examines construction project management methods and processes. Includes project delivery systems and contract types; contract administration procedures; jobsite planning and logistics; and managing labor, materials, and equipment.
Prerequisites: AET A101 with a minimum grade of C and AET A102 with a minimum grade of C.

CM A202 Project Planning and Scheduling **3 Credits**
Examines concepts and methods for planning and scheduling of construction projects. Includes identifying work elements, estimating activity durations, preparing network schedules and schedule updates, analyzing planned vs. actual project progress, and use of computer scheduling software.
Prerequisites: CM A201 with a minimum grade of C and (MATH A105 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A211 with a minimum grade of C or MATH A212 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C).

CM A232 Statics and Strength of Materials **3 Credits**
Analyzes forces and the mechanics of materials for structural elements and assemblies. Includes the fundamentals of statics; stress, strain and deformation; shear and bending stresses in beams; and column analysis.
Prerequisites: AET A101 with a minimum grade of C and AET A102 with a minimum grade of C and (MATH A105 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A211 with a minimum grade of C or MATH A212 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C) and ((PHYS A115 with a minimum grade of C and PHYS A115L with a minimum grade of C) or (PHYS A123 with a minimum grade of C and PHYS A123L with a minimum grade of C)).

CM A263 Civil Construction Cost Estimating **3 Credits**
Presents methods and techniques for preparing accurate cost estimates for earthwork, roads, highways, underground utilities, and site work. Emphasizes quantity surveys, unit costs, production factors, bidding, and construction equipment management.
Prerequisites: CM A163 with a minimum grade of C and CM A201 with a minimum grade of C and (MATH A105 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A211 with a minimum grade of C or MATH A212 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C).

CM A295 Construction Management Internship **3 Credits**
Provides career development and exploration through work experience in the field by placement in a construction management home or field office. Intern will perform duties directly related to construction management functions.
Registration Restrictions: Department approval

CM A301 Construction Project Management II **3 Credits**
Analyzes advanced subjects in construction project management. Includes project procurement, project delivery methodology, managing project change, quality control, claims and disputes, and labor relations.
Prerequisites: CM A163 with a minimum grade of C and CM A202 with a minimum grade of C.

CM A313 Soils in Construction **3 Credits**
Examines the properties and classifications of soils encountered and used in construction. Includes soils investigation, soils stress analysis, embankment construction, and excavation works and supports.
Prerequisites: AET A213 with a minimum grade of C and (MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A211 with a minimum grade of C or MATH A212 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C).

CM A401 Construction Law **3 Credits**
Examines the significant legal topics affecting general contractors, subcontractors, project owners and surety bond agents. Integrates legal issues with design and construction services, focusing on risk management and liability awareness.
Prerequisites: BA A241 with a minimum grade of C and CM A301 with a minimum grade of C.

CM A422 Sustainability in the Built Environment **3 Credits**
Examines sustainability concepts and the implementation of sustainability principles in the design and construction of the built environment. Evaluates human-constructed development and resource efficiency in relation to the local and global natural environment.
Prerequisites: AET A101 with a minimum grade of C and AET A102 with a minimum grade of C and (COMM A111 with a minimum grade of C or COMM A235 with a minimum grade of C or COMM A237 with a minimum grade of C or COMM A241 with a minimum grade of C or COMM A1O with a minimum grade of C or COMM A2O with a minimum grade of C) and (WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C or WRTG A2W with a minimum grade of C).

CM A440 Financial Management for Construction **3 Credits**
Analyzes financial management topics relevant to the construction management professional, including the interpretation of financial statements, financial ratios, applications of engineering economy, cash flow analysis, construction financing, and cost information systems.
Prerequisites: ACCT A202 with a minimum grade of C and CM A301 with a minimum grade of C.

CM A450 Construction Management Professional Practice **3 Credits**
Integrates educational and construction management principles using case studies. Emphasizes teamwork and professional competency. Includes the evaluation of project goals, conditions, and design documents to produce a plan for delivery and control.
Registration Restrictions: Completion of GER Tier 1 (basic college-level skills) courses
Prerequisites: CM A301 with a minimum grade of C and CM A495 with a minimum grade of C.
Attributes: UAA Integrative Capstone GER.

CM A460 Construction Equipment Management and Methods **3 Credits**
Analyzes the management of construction equipment and methods employed in different sectors of the construction industry including buildings, heavy-highway, and utilities construction. Includes earthmoving operations, appropriate equipment selection, operating costs, and fleet management.
Prerequisites: CM A263 with a minimum grade of C and CM A313 with a minimum grade of C.

CM A495 Advanced Construction Management Internship **3 Credits**
Provides career development and exploration through work experience in the field by placement in a construction management home or field office. Intern will perform duties directly related to construction management functions.
Registration Restrictions: Department approval

Creative Writing & Literary Arts (CWLA)

Courses

CWLA A652 Graduate Writer's Workshop: Poetry **5 Credits**
Advanced study and practice of the forms and techniques of poetry with close analysis of each student's creative work.
Special Note: May be repeated twice for degree credit.
Registration Restrictions: Graduate standing and admission to MFA program in creative writing

CWLA A662 Graduate Writer's Workshop: Fiction **5 Credits**
Advanced study and practice of the forms and techniques of fiction with close analysis of each student's creative work.
Special Note: May be repeated twice for degree credit.
Registration Restrictions: Graduate standing and admission to MFA program in creative writing

CWLA A672 Graduate Writer's Workshop: Literary Nonfiction **5 Credits**
Advanced study and practice of the forms and techniques of literary nonfiction with close analysis of each student's creative work.
Special Note: May be repeated twice for degree credit.
Registration Restrictions: Graduate standing and admission to MFA program in creative writing

CWLA A695 Literary Practicum **1-5 Credits**
Provides students with opportunities for professional development in writing, publishing, or teaching by focusing on literary projects of their own devising or by collaborating on projects with public, educational, or literary communities. Student is responsible for planning, organizing, and submitting projects to program director.
Special Note: Practicum may be taken only after satisfactorily completing 20 credits of coursework. May be repeated for a maximum of 5 credits.
Registration Restrictions: Graduate standing and admission to MFA program in creative writing; permission of program director

CWLA A699 Thesis **5 Credits**
Book-length collection of the graduate student's creative work, introduced by an in-depth analytical essay addressing the body of the creative work in terms of process, craft, and theory. Also part of the thesis evaluation is an annotated bibliography, oral defense of the thesis, and public reading.
Special Note: Must have satisfactorily completed 30 credits to enroll. May be repeated for a total of 10 credits.
Registration Restrictions: Graduate standing and admission to MFA program in creative writing; permission of advisor

Culinary Arts (CA)

Courses

CA A101 The Hospitality Industry: Careers, Trends, and Practices **2 Credits**
Explores career opportunities in the hospitality industry and examines emerging labor trends.

CA A103 Culinary Skill Development Laboratory **4 Credits**
Introduces and provides students with a comprehensive theoretical and practical foundation in commercial kitchen practices.
Registration Restrictions: Admission to the Associate of Applied Science (AAS) in Culinary Arts, Occupational Endorsement Certificate (OEC) in Culinary Arts, or Occupational Endorsement Certificate (OEC) in Baking & Pastry and current ServSafe certification by course start date.
Prerequisites: CA A101 with a minimum grade of C and CA A104 with a minimum grade of C and CA A107 with a minimum grade of C.

CA A104 Sanitation **2 Credits**
Focuses on sanitation principles, concepts, methods, codes and regulations current to the foodservice industry. All students take the mandatory ServSafe Food Protection Manager national exam certification.
Prerequisites: WRTG A110 with a minimum grade of C or (Accuplacer-Reading Comp with a score of 080 and Accuplacer-Sentence Skills with a score of 090) or Accuplacer-Sum AASS + AARC with a score of 170 or (Accuplacer NG Writing with a score of 265 and Accuplacer NG Reading with a score of 265) or Accuplacer NG AAWR + AARE with a score of 530 or Enhanced ACT English with a score of 22 or EVIDENCE-BASED READ/WRIT SCORE with a score of 560 and (MATH A054 with a minimum grade of C or ALEKS Overall Test 1 with a score of 017 or ALEKS Overall Test 2 with a score of 017 or ALEKS Overall Test 3 with a score of 017 or ALEKS Overall Test 4 with a score of 017 or ALEKS Overall Test 5 with a score of 017).

CA A107 Procurement and Cost Control **3 Credits**
Focuses on critical control points in the foodservice cost control cycle. Prepares student to analyze costs and make foodservice operation decisions. Examines foodservice industry procurement practices and standards.
Prerequisites: WRTG A110 with a minimum grade of C or (Accuplacer-Reading Comp with a score of 080 and Accuplacer-Sentence Skills with a score of 090) or Accuplacer-Sum AASS + AARC with a score of 170 or (Accuplacer NG Writing with a score of 265 and Accuplacer NG Reading with a score of 265) or Accuplacer NG AAWR + AARE with a score of 530 or Enhanced ACT English with a score of 22 or EVIDENCE-BASED READ/WRIT SCORE with a score of 560 and (MATH A054 with a minimum grade of C or ALEKS Overall Test 1 with a score of 017 or ALEKS Overall Test 2 with a score of 017 or ALEKS Overall Test 3 with a score of 017 or ALEKS Overall Test 4 with a score of 017 or ALEKS Overall Test 5 with a score of 017).

CA A111 Bakery Skill Development Laboratory **4 Credits**
Provides students with a comprehensive theoretical and practical foundation in commercial baking practices.
Registration Restrictions: Admission to the Associate of Applied Science (AAS) in Culinary Arts, Occupational Endorsement Certificate (OEC) in Culinary Arts or Occupational Endorsement Certificate (OEC) in Baking and Pastry Arts, and current ServSafe certification by course start date.
Prerequisites: CA A101 with a minimum grade of C and CA A104 with a minimum grade of C and CA A107 with a minimum grade of C.

CA A114 Beverage Management **3 Credits**
Reviews the history of the beverage industry, including alcohol and non-alcohol beverages. Focuses on the management and operations of beverage service in restaurants and hotels. Covers legal responsibilities of serving alcohol and awareness of alcohol abuse.
Special Note: Course prepares student to take the state alcohol server exam.
Registration Restrictions: Must be age 21 or older by the first day of class

CA A120 Artisan Breads **1 Credit**
Introduces the principles and techniques used in the preparation of yeast leavened doughs emphasizing on the production and evaluation of the baked products.
Registration Restrictions: Admission to the Associate of Applied Science in Culinary Arts, the Occupational Endorsement Certificate in Baking and Pastry Arts, or the Occupational Endorsement Certificate in Culinary Arts.

CA A125 Baking with Alternative Ingredients **1 Credit**
Introduces alternate ingredient options used in baking to accommodate special dietary needs.
Registration Restrictions: Admission to the Associate of Applied Science in Culinary Arts, the Occupational Endorsement Certificate in Baking and Pastry Arts, or the Occupational Endorsement Certificate in Culinary Arts.

CA A130 Basic Cakes **1 Credit**
Introduces the basics of traditional cake making and decorating using buttercream icing(s).
Registration Restrictions: Admission to the Associate of Applied Science in Culinary Arts, the Occupational Endorsement Certificate in Baking and Pastry Arts, or the Occupational Endorsement Certificate in Culinary Arts.

CA A201 A la Carte Kitchen **4 Credits**
Emphasizes cooking techniques, ingredients, and professionalism in a commercial kitchen.
Special Note: Must have instructor approval to retake course.
Registration Restrictions: Admission to the Associate of Applied Science in Culinary Arts, the Occupational Endorsement Certificate in Baking and Pastry Arts or the Occupational Endorsement Certificate in Culinary Arts, and current ServSafe certification by course start date.
Prerequisites: CA A103 with a minimum grade of C or concurrent enrollment.

CA A202 Advanced Bakery **4 Credits**
Explores advanced baking, pastry, confectionary, and presentation techniques in a commercial bakery environment. Emphasizes production processes, service, portion controls, safety and sanitation in a commercial bakery.
Special Note: Must have instructor approval to retake course.
Registration Restrictions: Admission to the Associate of Applied Science in Culinary Arts, the Occupational Endorsement Certificate in Baking and Pastry Arts, or the Occupational Endorsement Certificate in Culinary Arts, and current ServSafe certification by course start date.
Prerequisites: CA A111 with a minimum grade of C or concurrent enrollment.

CA A223 Catering Management **3 Credits**
Introduces the fundamental concepts of catering management, planning, and production of events.
Registration Restrictions: Admission to the Associate of Applied Science (AAS) in Culinary Arts.
Prerequisites: CA A101 with a minimum grade of C and CA A103 with a minimum grade of C and CA A104 with a minimum grade of C and CA A107 with a minimum grade of C and CA A111 with a minimum grade of C.

CA A224 Hospitality Service **3 Credits**
Focuses on hands-on instruction of dining room service and management, including duties of front-of-the-house service to include: server, greeter, busser, steward, and cashier. Reviews the process of merchandising food, beverages, and services. Examines the use of table topography, glassware, china, linen, and service ware in a professional restaurant operation.
Registration Restrictions: Admission to the Associate of Applied Science (AAS) in Culinary Arts and current ServSafe certification by course start date.
Prerequisites: CA A201 with a minimum grade of C and CA A202 with a minimum grade of C.

CA A225 Hospitality Concept Design **3 Credits**
Examines concept development and business planning for professional foodservice facilities. Explores menu planning/pricing, operating, budgeting, and production models in foodservice management. Explores trends in technology, human resource management, and financing.
Registration Restrictions: Admission to the Associate of Applied Science (AAS) in Culinary Arts.
Prerequisites: CA A201 with a minimum grade of C or concurrent enrollment or CA A202 with a minimum grade of C or concurrent enrollment.

CA A230 Foodservice Management **3 Credits**
Covers supervisory and management responsibilities within hospitality foodservice operations. Emphasizes communication, problem solving, leadership, human resource planning, training, motivating, and organizational skills. Labor costs, cost control, and the legal environment are examined.
Registration Restrictions: Admission to the Associate of Applied Science (AAS) in Culinary Arts.

CA A235 Specialty Cakes **1 Credit**
Explores a variety of cakes and methods of decoration utilizing differing mediums. Emphasizes design and construction of a centerpiece cake.
Registration Restrictions: Admission to the Associate of Applied Science (AAS) in Culinary Arts, the Occupational Endorsement Certificate (OEC) in Baking & Pastry Arts, or the Occupational Endorsement Certificate (OEC) in Culinary Arts.
Prerequisites: CA A130 with a minimum grade of C.

CA A270 Culinary Nutrition **3 Credits**
Presents the physical and chemical characteristics of foods that affect nutritional value. Explores the modification process and application of these concepts in planning nutritionally balanced meals.
Special Note: Students are responsible for purchasing all food and equipment for class projects. Cost of food alone may exceed $100 depending on student location. Availability of a kitchen, kitchen appliances, and a smart phone, tablet or laptop with video capabilities and ability to transmit photos and videos electronically is required.
Crosslisted With: DN A270

CA A295 Foodservice Internship **3 Credits**
Provides supervised workplace training in selected foodservice industry settings. Integrates knowledge and skills through work designed to meet students' individual competency needs and career objectives. Requires minimum of 225 hours at worksite plus 15 hours of consultation with faculty mentor.
Registration Restrictions: Admission to the Associate of Applied Science (AAS) in Culinary Arts and current ServSafe certification by course start date.
Prerequisites: CA A201 with a minimum grade of C and CA A202 with a minimum grade of C.

CA A490 Current Topics in Food and Hospitality **1-6 Credits**
Examines current topics in culinary arts resulting from special demands of the industry or special faculty expertise.

Dance (DNCE)

Courses

DNCE A121 Contemporary Modern I **2 Credits**
Introduces basic skills of contemporary modern dance through movement exercises, movement phrases and creative movement inquiry. Designed for students with little to no experience who wish to explore dance as aesthetic practice.
Special Note: May be repeated for a maximum of 8 credits.

DNCE A124 Dance for Musical Theatre I **2 Credits**
Introduces the vocabulary, variety of movement styles and performance techniques inherent in American musical theatre, including the ability to vocalize correctly during movement. Covers a range of time periods from the 1920s to the present.
Special Note: May be repeated for a maximum of 8 credits.
Crosslisted With: THR A124.

DNCE A148 Hip Hop and Street Dance Styles I **2 Credits**
Introduces hip hop and street dance techniques and styles through a variety of movement exercises. Introduces hip hop culture and history. Designed for the student with little or no prior experience in dance.
Special Note: May be repeated for a maximum of 8 credits.

DNCE A170 Dance Appreciation **3 Credits**
Develops an appreciation of dance for observers and participants through readings, lectures, videos, writing exercises, live performances, and movement and discussion sessions. Explores dance in social and cultural contexts and as an aesthetic and kinesthetic experience. Examines dance across various cultures along with its development as an art form in Europe and America. A lecture course with four to seven dance studio movement sessions per semester.
Attributes: UAA Fine Arts GER, UAA Intercultural Fluency GER.

DNCE A223 Contemporary Modern II **2 Credits**
Expands contemporary modern dance skills and movement vocabulary through longer warm-ups and movement combinations. Explores contemporary modern dance history. Designed for students with previous dance experience.
Special Note: May be repeated for a maximum of 8 credits.
Prerequisites: DNCE A121 with a minimum grade of C.

DNCE A262 Theory and Improvisation **3 Credits**
Explores improvised movement material. Guided movement exercises are used to broaden the physical and expressive skills of the dance student. Students apply the improvisational techniques in regard to time, space, energy and movement dynamics that are expected to be employed as part of the compositional and choreographic process.
Registration Restrictions: Instructor permission required.
Prerequisites: DNCE A121 with a minimum grade of C or THR A221 with a minimum grade of C.

DNCE A290 Selected Topics in Dance **1-3 Credits**
Introduction to current topics in dance performance and theory. Topics will depend on special demands of the dance season or faculty expertise.
Special Note: May be repeated for credit.
Registration Restrictions: Prerequisites vary according to topic.

DNCE A361 Approaches to Dance Composition **3 Credits**
Introduces the process of creating movement studies as a foundation for larger works of dance. Universal elements of composition and the creative process are explored from multiple perspectives. Final movement study project required.
Registration Restrictions: Instructor approval
Prerequisites: DNCE A121 with a minimum grade of C and DNCE A262 with a minimum grade of C.

DNCE A365 Dance Repertory and Performance I **3 Credits**
Addresses key concepts of dance making with a focus on improvisation, composition and choreographic process. Focuses on learning and refining works of choreography while also examining the social, political or cultural forces that influence performance works.
Special Note: May be repeated three times for credit.
Registration Restrictions: Audition and/or instructor approval
Prerequisites: DNCE A223 with a minimum grade of C or DNCE A262 with a minimum grade of C.

DNCE A370 Interdisciplinary Dance Studies: Issues and Methods **3 Credits**
Explores how scholars mobilize methods drawn from a variety of disciplines to examine dance and expressive movement across a range of interdisciplinary perspectives and theoretical lenses. Applies and integrates these methods in relation to scholarly articles and dance video materials. Students practice applying these methods to their own encounters with dance. Case studies will vary according to student interest.
Registration Restrictions: Completion of Tier 1 GER courses and junior standing
Prerequisites: DNCE A170 with a minimum grade of C and (WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C).
Attributes: UAA Integrative Capstone GER.

DNCE A395 Advanced Practicum: Performance **1-3 Credits**
Offers performance practicum for juniors and seniors. Requires advanced participation in dance production as a dancer, performance artist or choreographer.
Special Note: May be repeated for up to 12 total credits.
Registration Restrictions: Junior or senior standing, audition, and instructor approval

Dental Hygiene (DH)

Courses

DH A110 Dental Radiography **4 Credits**
Explores principles of radiation production, physics, biology, patient education, and safety and emphasizes the foundations of intraoral and extraoral radiographic techniques and radiographic interpretation of health and disease.
Registration Restrictions: Admission to the College of Health and Bachelor of Science in Dental Hygiene, and department approval

DH A160 Applied Dental Materials **3 Credits**
Investigates the science of dental materials and their physical properties, as well as the rationale for use in general dentistry. Laboratory sessions integrate lectures and manipulation of materials used in dentistry.
Registration Restrictions: Admission to the College of Health and Bachelor of Science in Dental Hygiene, and department approval

DH A200 Basic Instrumentation for Dental Hygienists **2 Credits**
Introduces concepts of dental hygiene instrumentation. Includes practical application on typodonts and student partners, and competency examination.
Registration Restrictions: Departmental approval.

DH A201 Oral Histology and Embryology **2 Credits**
Presents information on histology and embryology of the oral cavity, with emphasis on dental and periodontal structures.
Registration Restrictions: Admission to the Bachelor of Science in Dental Hygiene
Prerequisites: BIOL A112 with a minimum grade of C and BIOL A112L with a minimum grade of C.

DH A203 Assessment Procedures in Dental Hygiene **3 Credits**
Introduces assessment procedures used in dental hygiene. Covers medical history information; medical emergencies; vital signs; extraoral and intraoral, periodontal, dental, and occlusal examinations. Includes application of lecture material to the clinical setting on student partners.
Registration Restrictions: Admission to the Bachelor of Science in Dental Hygiene and current Basic Life Support certification
Prerequisites: DH A201 with a minimum grade of C and DH A204 with a minimum grade of C.

DH A204 Anatomy of the Orofacial Structures **2 Credits**
Provides students with anatomical knowledge necessary to perform technical skills within the oral cavity.
Registration Restrictions: Admission to the Bachelor of Science in Dental Hygiene
Prerequisites: BIOL A112 with a minimum grade of C and BIOL A112L with a minimum grade of C.

DH A220 Introduction to Preventive Dentistry **2 Credits**
Covers infection control policy and procedures used in dentistry. Introduces the dental conditions of caries and periodontal disease and methods used to prevent them.
Registration Restrictions: Admission to the Bachelor of Science in Dental Hygiene
Prerequisites: BIOL A240 with a minimum grade of C and BIOL A240L with a minimum grade of C.

DH A222 Adjunctive Techniques for Dental Hygienists **3 Credits**
Introduces adjunctive techniques used in dental hygiene treatment. Emphasizes skills applied in the practice of dental hygiene, such as polishing, sealant placement, fluoride application and use of mechanized debridement.
Registration Restrictions: Admission to the Bachelor of Science in Dental Hygiene and current Basic Life Support certification
Prerequisites: DH A200 with a minimum grade of C.

DH A292D Clinical Seminar I **1 Credit**
Provides procedural instruction and general support for Clinical Practicum I. Continues discussion of special needs patient care from earlier coursework. Introduces interprofessional collaboration.
Registration Restrictions: Admission to the Bachelor of Science in Dental Hygiene
Prerequisites: DH A292E with a minimum grade of C.
Corequisites: DH A295D.

DH A292E Preclinical Seminar **1 Credit**
Introduces topics and issues that arise in dental hygiene clinical practice. Provides opportunities for students to learn and practice interpersonal communication skills, including inter-professional communication, tobacco cessation discussion, and nutritional counseling that pertain to dentistry. Includes evidence-based dental hygiene theory, clinical documentation and patient management techniques.
Registration Restrictions: Departmental approval

DH A295D Clinical Practicum I **4 Credits**
Provides opportunity for students to achieve clinical skill competency with patients presenting with periodontal health or with signs of gingivitis. This course is conducted in a clinical setting with volunteer patients and individualized instruction.
Registration Restrictions: Admission to the Bachelor of Science in Dental Hygiene, current Basic Life Support certification and immunizations
Prerequisites: DH A203 with a minimum grade of C and DH A222 with a minimum grade of C and DH A311 with a minimum grade of C.
Corequisites: DH A292D.

DH A302 Advanced Instrumentation for Dental Hygienists **1 Credit**
Provides instruction in advanced instrumentation techniques and root planing used in dental hygiene therapeutic treatment. Explores root anatomy through drawings and carvings.
Registration Restrictions: Admission to the Bachelor of Science in Dental Hygiene and current Basic Life Support certification
Prerequisites: DH A222 with a minimum grade of C.

DH A310 Oral Pain Control **3 Credits**
Examines pharmacology, armamentarium, anatomical and physiological considerations, administration techniques, and potential complications of local anesthesia. Analyzes pharmacology, administration techniques, medical contraindications, and management of complications accompanying administration and monitoring of nitrous oxide.
Special Note: Satisfies requirements of 12 AAC 28.340, Alaska State Dental Statutes and eligibility to take the Western Regional Board Examination for certification of dental hygienists to administer local anesthetics. It also meets regulation requirements for dental hygienists to administer and monitor nitrous oxide analgesia (12 AAC 28.345).
Registration Restrictions: Admission to the Bachelor of Science in Dental Hygiene and current Basic Life Support certification
Prerequisites: DH A204 with a minimum grade of C and DH A295D with a minimum grade of C and DH A365 with a minimum grade of C.

DH A311 Periodontics **2 Credits**
Uses previous knowledge of periodontal structures and microbiology to enable the student to assess periodontal conditions and formulate treatment plans.
Registration Restrictions: Admission to the Bachelor of Science in Dental Hygiene
Prerequisites: BIOL A240 with a minimum grade of C and BIOL A240L with a minimum grade of C and DH A201 with a minimum grade of C.

DH A314 Pathology of Oral Tissues **2 Credits**
Applies and expands knowledge of anatomy and microbiology to familiarize the student with signs, symptoms, and contagion recognition of selected diseases of the oral cavity, and with systemic diseases that manifest themselves in the oral cavity.
Registration Restrictions: Admission to the Bachelor of Science in Dental Hygiene
Prerequisites: BIOL A240 with a minimum grade of C and BIOL A240L with a minimum grade of C and DH A201 with a minimum grade of C and DH A204 with a minimum grade of C.

DH A316 Professional Dental Hygiene Practice **1 Credit**
Discusses ethical and legal concerns in the dental hygiene profession. Explores issues relevant to the practice of dental hygiene.
Registration Restrictions: Admission to the Bachelor of Science in Dental Hygiene
Prerequisites: DH A295D with a minimum grade of C.

DH A321 Current Periodontal Therapies **2 Credits**
Emphasizes theoretical instruction and application of current nonsurgical techniques in the treatment of periodontal disease.
Registration Restrictions: Admission to the Bachelor of Science in Dental Hygiene
Prerequisites: DH A311 with a minimum grade of C.

DH A324 Community Dental Health I **2 Credits**
Provides theoretical instruction on community dental health epidemiology, and discusses public health research methodology. Includes development and implementation of a basic community dental health care project.
Registration Restrictions: Admission to the Bachelor of Science in Dental Hygiene
Prerequisites: STAT A200 with a minimum grade of C or STAT A253 with a minimum grade of C.

DH A360 Restorative Techniques for Dental Auxiliaries **4 Credits**
Builds on previous coursework to introduce restorative skills for allied dental personnel. Provides supervised laboratory instruction on typodonts, with initial emphasis on Class I and Class II restorations. Emphasizes Class III and IV and multiple-surface posterior restorations towards the end of the course. Applies restorative function skills in the clinical situation under direct supervision of clinical faculty.
Special Note: Satisfies requirements of 12 AAC 28.770 and 12 AAC 28.870, Alaska State Dental Statutes and eligibility to take the Western Regional Board Examination for certification of dental assistants and dental hygienists to perform restorative functions.
Registration Restrictions: Second year dental hygiene student, licensed dental hygienist, or certified dental assistant; current Basic Life Support certification; current immunizations; and department approval
Prerequisites: DH A160 with a minimum grade of C and (DA A150 with a minimum grade of C or DH A204 with a minimum grade of C).

DH A365 Pharmacology for Dental Hygienists **2 Credits**
Presents general pharmacological concepts and applications; nature of drug reactions; individual response to drugs; principles of neuropharmacology; toxicology; anti-infective therapy; and effects of drugs on cardiovascular, endocrine, and other body systems. Emphasizes drugs used in dentistry.
Registration Restrictions: Admission to the Bachelor of Science in Dental Hygiene
Prerequisites: CHEM A104 with a minimum grade of C and CHEM A104L with a minimum grade of C.

DH A390 Selected Topics in Dental Hygiene **1-6 Credits**
Studies emerging trends, standards, and theories in dental hygiene. Explores opportunities for clinical application.
Special Note: May be repeated for credit with a change of subtitle.
Registration Restrictions: Departmental approval

DH A392C Clinical Seminar II **1 Credit**
Provides discussion and evaluation of clinical experiences in Clinical Practicum II. Emphasizes review of treatment and case presentations.
Registration Restrictions: Admission to the Bachelor of Science in Dental Hygiene
Prerequisites: DH A295D with a minimum grade of C and DH A302 with a minimum grade of C and DH A321 with a minimum grade of C.
Corequisites: DH A395C.

DH A392D Clinical Seminar III **1 Credit**
Provides discussion and evaluation of clinical experiences in Clinical Practicum III. Emphasizes review of treatment and case presentations of patients exhibiting Stage 2 to 3, Grade A or B periodontitis.
Registration Restrictions: Admission to the Bachelor of Science in Dental Hygiene
Prerequisites: DH A310 with a minimum grade of C and DH A395C with a minimum grade of C.
Corequisites: DH A395D.

DH A395C Clinical Practicum II **5 Credits**
Provides opportunity for students to achieve clinical skill competency with patients presenting with Stage 1 to 2, Grade A or B periodontitis. Conducted in a clinical setting with volunteer patients and individualized instruction.
Registration Restrictions: Admission to the Bachelor of Science in Dental Hygiene, current Basic Life Support certification and immunizations
Prerequisites: DH A295D with a minimum grade of C and DH A302 with a minimum grade of C.
Corequisites: DH A392C.

DH A395D Clinical Practicum III **6 Credits**
Provides opportunity for students to achieve clinical skill competency with patients presenting with Stage 2 to 3, Grade A or B periodontitis. Conducted in a clinical setting with volunteer patients and individualized instruction.
Registration Restrictions: Admission to the Bachelor of Science in Dental Hygiene, and current Basic Life Support certification and immunizations
Prerequisites: DH A310 with a minimum grade of C and DH A395C with a minimum grade of C.
Corequisites: DH A392D.

DH A395E Community Practicum in Dental Hygiene **1-3 Credits**
Applies basic dental hygiene skills in the clinical situation under supervision of clinical faculty. Emphasizes care for patients with periodontal health or Stage 1 to 2, Grade A or B periodontitis.
Special Note: May be repeated for a maximum of 3 credits.
Registration Restrictions: Admission to the Bachelor of Science in Dental Hygiene, current Basic Life Support certification and immunizations
Prerequisites: DH A295D with a minimum grade of C.

DH A424 Community Dental Health II **3 Credits**
Presents advanced theoretical instruction on community dental health and research methodology, with emphasis on project design, development, and implementation for diverse populations.
Registration Restrictions: Admission to the Bachelor of Science in Dental Hygiene and completion of Tier 1 GER courses
Prerequisites: DH A324 with a minimum grade of C and (STAT A200 with a minimum grade of C or STAT A253 with a minimum grade of C).
Attributes: UAA Integrative Capstone GER.

DH A495B Instructional Practicum in Dental Hygiene **1-4 Credits**
Emphasizes practical teaching experience in laboratory or clinical sessions. Combines classroom preparation, presentation of material, competency assessment, and lecture correlation under the supervision of program faculty.
Special Note: Placement availability may be limited. May be repeated for a maximum of 4 credits.
Registration Restrictions: Admission to the Bachelor of Science in Dental Hygiene and instructor approval
Prerequisites: DH A321 with a minimum grade of C and DH A395C with a minimum grade of C.

DH A495E Rural Practicum in Dental Hygiene **1-3 Credits**
Applies dental hygiene skills in the rural clinical situation under the supervision of clinical faculty. Emphasizes dental needs of rural communities.
Special Note: May be repeated for a maximum of 3 credits.
Registration Restrictions: Completion of DH A395D with a minimum grade of C; or Admission to the Bachelor of Science in Dental Hygiene, current Basic Life Support certification and immunizations, and instructor approval

Diagnostic Medical Sonography (DMS)

Courses

DMS A101 Introduction to Sonography **2 Credits**
Introduces the history of ultrasound, its medical application, the sonographer's role, ergonomics, terminology, approaches to scanning, anatomical relationships and sectional anatomy.
Registration Restrictions: Department approval

DMS A102 Foundations of Sonography **2 Credits**
Introduces the profession and basic skills of sonography with emphasis on sonographic terminology, sonographer and patient safety, effective communication, and legal/ethical aspects.
Registration Restrictions: Departmental approval

DMS A103 Patient Care in Sonography **2 Credits**
Introduces general patient care and communication skills used working in sonography. Includes clinical procedures and techniques, infection control, and safety.
Registration Restrictions: Department approval

DMS A104 Foundations of Sonography and Patient Care **3 Credits**
Provides an overview of sonography and the practitioner's role. Examines professionalism, patient care, infection control, safety, medical ethics, and law related to sonography.
Registration Restrictions: Admission to the Associate of Applied Science in Diagnostic Medical Sonography

DMS A105 Principles and Instrumentation I **3 Credits**
Introduces the physical principles of sound waves, acoustic parameters, ultrasound transducers, instrumentation, equipment operation, and the methods of image formation and storage.
Registration Restrictions: Department approval

DMS A107 Abdominal Sonography I **3 Credits**
Provides the theoretical basis for performing sonographic procedures. Introduces examination protocols and imaging evaluation for the abdominal organs, superficial and small parts. Introduces cross sectional anatomy and normal sonographic appearance of abdominal vasculature, abdominal organs, superficial structures and small parts. Special considerations for pediatric sonography are also included.
Registration Restrictions: Department approval

DMS A109 OB and Gyn Sonography I **3 Credits**
Introduces the embryology, anatomy and physiology of the female reproductive system, breast, and developing fetus. Includes normal sonographic appearance of anatomy.
Registration Restrictions: Department approval

DMS A205 Principles and Instrumentation II **3 Credits**
Discusses advanced imaging, Doppler principles, image artifacts, quality assurance programs and biologic effects. Includes application of advanced and Doppler imaging methods.
Registration Restrictions: Department approval
Prerequisites: DMS A105 with a minimum grade of C.

DMS A207 Abdominal Sonography II **3 Credits**
Provides the theoretical basis for performing sonographic procedures. Discusses the pathologic conditions of abdominal vasculature, organs, superficial structure and small parts including pediatric pathology. Introduces characterization of sonographic findings, scanning protocols and techniques.
Registration Restrictions: Department approval
Prerequisites: DMS A107 with a minimum grade of C.

DMS A209 OB and Gyn Sonography II **3 Credits**
Discusses the pathologic conditions of the female reproductive system, breast tissue and fetal development. Includes sonographic findings and scanning protocols.
Registration Restrictions: Department approval
Prerequisites: DMS A109 with a minimum grade of C.

DMS A211 Small Parts Sonography **1 Credit**
Introduces the anatomy, physiology and pathologic conditions of superficial structures and small parts. Includes normal sonographic appearance of anatomy, sonographic findings and scanning protocols.
Registration Restrictions: Departmental approval

DMS A213 Vascular Technology **2 Credits**
Introduces the anatomy, physiology, hemodynamics and pathologic conditions of the cardiovascular system. Includes normal sonographic appearance of anatomy, sonographic findings and scanning protocols.
Registration Restrictions: Departmental approval

DMS A215 Breast Sonography **1 Credit**
Introduces the anatomy, physiology and pathologic conditions of breast tissue. Includes normal sonographic appearance of anatomy, sonographic findings and scanning protocols.
Registration Restrictions: Department approval

DMS A217 Fundamentals of Sonography Lab **1 Credit**
Provides students the opportunity to apply didactic knowledge using sonographic equipment in a supervised laboratory environment.
Registration Restrictions: Department approval
Prerequisites: DMS A101 with a minimum grade of C and DMS A105 with a minimum grade of C and DMS A107 with a minimum grade of C and DMS A109 with a minimum grade of C.

DMS A219 Practical Sonography Lab **3 Credits**
Provides students with an opportunity to apply scanning techniques in a realistic, supervised laboratory environment.
Registration Restrictions: Admission to the Associate of Applied Science in Diagnostic Medical Sonography, successful completion of the American Registry of Diagnostic Medical Sonography (ARDMS) Sonography Principles and Instrumentation (SPI) exam, all required immunizations, and department approval
Prerequisites: DMS A217 with a minimum grade of B.

DMS A221 Pediatric Sonography **1 Credit**
Introduces the anatomy, physiology and pathologic conditions for neonatal and pediatric patients. Includes normal sonographic appearance of anatomy, sonographic findings and scanning protocols.
Registration Restrictions: Department approval

DMS A292A DMS Seminar I **3 Credits**
Provides opportunity for discussion of experiences in clinical practicum course including disease pathogenesis. Includes sonography research and student presentations of case study with correlation of sonographic, clinical and other diagnostic testing information.
Registration Restrictions: Department Approval
Corequisites: DMS A295A.

DMS A292B DMS Seminar II **3 Credits**
Provides continued discussion of disease pathogenesis. Includes student presentation of case studies with correlation of sonographic, clinical and other diagnostic testing information. Covers professional practice issues in preparation for the transition to employment. Prepares students for the American Registry of Diagnostic Medical Sonography Abdominal and OB/GYN content examinations and assists with application submission.
Registration Restrictions: Department approval
Prerequisites: DMS A295A with a minimum grade of B.
Corequisites: DMS A295B.

DMS A295A Clinical Practicum I **9 Credits**
Provides supervised clinical ultrasound experience in a health care facility. Students will observe, assist with and perform a variety of sonographic examinations.
Registration Restrictions: Department approval
Prerequisites: DMS A219 with a minimum grade of B.

DMS A295B Clinical Practicum II **9 Credits**
Provides continued supervised clinical ultrasound experience in a health care facility. Students will perform a variety of sonographic examinations.
Registration Restrictions: Department approval
Prerequisites: DMS A295A with a minimum grade of B.

DMS A395 Clinical Practicum III **3 Credits**
Provides continued supervised clinical ultrasound experience in a health care facility. Students will perform a variety of sonographic examinations.
Registration Restrictions: Department approval
Prerequisites: DMS A295B with a minimum grade of P.

Dietetics & Nutrition (DN)

Courses

DN A100 The Profession of Dietetics **1 Credit**
Introduces students to the professional opportunities in the field of nutrition and dietetics with an emphasis on academic preparation, acquisition of professional credentials and career laddering.
Registration Restrictions: Admission to the pre-major in dietetics or the Bachelor of Science in Dietetics

DN A151 Nutrition Through the Life Cycle **3 Credits**
Introduces nutritional needs and dietary recommendations through the life cycle: newborns, infants, toddlers, preschool and school-age children, adolescents, adults and the elderly. Covers common childhood, adolescent, adult and elderly conditions and corresponding nutrition interventions.

DN A155 Survey of Alaska Native Nutrition **3 Credits**
Introduces traditional foods and their role in the physical, social and mental health issues of Alaska Natives within six geo-social regions of Alaska (Arctic/Western, Interior, Aleutian Chain, Southeast, Southcentral and urban Alaska).
Attributes: UAA Alaska Native-Themed GER.

DN A203 Nutrition for Health Sciences **3 Credits**
Presents nutrition in the life cycle including food sources and requirements of nutrients, and physiological and metabolic aspects of nutrient function. Reviews disease states, food selection, and cultural and contemporary issues of concern to health professionals.
Prerequisites: WRTG A110 with a minimum grade of C or WRTG A111 with a minimum grade of C or WRTG A1W with a minimum grade of C.

DN A270 Culinary Nutrition **3 Credits**
Presents the physical and chemical characteristics of foods that affect nutritional value. Explores the modification process and application of these concepts in planning nutritionally balanced meals.
Special Note: Students are responsible for purchasing all food and equipment for class projects. Cost of food alone may exceed $100 depending on student location. Availability of a kitchen, kitchen appliances, and a smart phone, tablet or laptop with video capabilities and ability to transmit photos and videos electronically is required.
Crosslisted With: CA A270

DN A275 Introduction to Culinary Medicine **3 Credits**
Investigates basics of culinary literacy, including cooking techniques, knife skills, food safety and sensory evaluation of food. Exposes future healthcare providers to culinary medicine concepts through application of culinary literacy skills and therapeutic nutrition principles. Grounded in a food first approach to health and wellness with an emphasis on disease prevention.
Special Note: Students are responsible for purchasing all food and equipment for class projects. Cost of food alone may exceed $100 depending on student location. Availability of a kitchen, small kitchen tools, and a smart phone, tablet or laptop with video capabilities and ability to transmit photos and videos electronically is required. The required ServSafe certification exam will cost approximately $200.
Registration Restrictions: Current ServSafe Food Handler certification
Prerequisites: DN A270 with a minimum grade of C.

DN A301 Nutrition Assessment **3 Credits**
Explores methods of nutrition assessment in humans to evaluate dietary intake and body composition including the use of biological markers of human nutritional status.
Registration Restrictions: Admission to the pre-major in dietetics or the Bachelor of Science in Dietetics and completion of all GER Tier 1 (basic college-level skills) courses with a minimum grade of C
Prerequisites: DN A203 with a minimum grade of C and (MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C) and (PSY A111 with a minimum grade of C or SOC A101 with a minimum grade of C).

DN A312 Nutrition Communication and Counseling **3 Credits**
Provides theory and practice in nutrition communication and counseling including behavior modification techniques, processes of cognitive change, and cross-cultural counseling. Provides practice in nutrition education materials development and delivering nutrition education to groups.
Registration Restrictions: Admission to the pre-major in dietetics or the Bachelor of Science in Dietetics and completion of all GER Tier 1 (basic college-level skills) courses with a minimum grade of C
Prerequisites: DN A203 with a minimum grade of C and (PSY A111 with a minimum grade of C or SOC A101 with a minimum grade of C).

DN A325 Food & Nutrition in Modern Alaska **3 Credits**
Explores the food and nutrition-related health of people in modern Alaska, ranging from Alaska Native peoples to individuals from the Pacific Islands, Middle East, Mexico, Europe, Asia and more. Examines food consumption patterns based on Alaska's diverse ethnicities, geography and economy. Also explores Alaska's unique food system.
Registration Restrictions: Junior or senior standing.
Attributes: UAA Alaska Native-Themed GER.

DN A350 Foodservice Systems and Quantity Foods **4 Credits**
Presents principles and theories of foodservice systems: menu planning, development and standardization. Covers adjustment and costing of quantity recipes and procurement and production of quantity food.
Registration Restrictions: Admission to the pre-major in dietetics or the Bachelor of Science in Dietetics or the minor in Hospitality Administration and completion of all GER Tier 1 (basic college-level skills) courses with a minimum grade of C
Prerequisites: DN A275 with a minimum grade of C.

DN A355 Weight Management and Eating Disorders **3 Credits**
Analyzes the impact of obesity and eating disorders on individuals and society. Reviews etiology, incidence, socioeconomic influences, pathogenesis and treatments. Examines treatment techniques including modification of diet, activity, behavior, medication and surgery.
Registration Restrictions: Completion of all GER Tier 1 (basic college-level skills) courses with a minimum grade of C.
Prerequisites: DN A203 with a minimum grade of C.

DN A360 Sports Nutrition **3 Credits**
Examines nutrition guidelines and nutrient intakes, emphasizing health and performance of physically active individuals. Includes a review of body composition and weight control.
Prerequisites: BIOL A111 with a minimum grade of C and BIOL A111L with a minimum grade of C and BIOL A112 with a minimum grade of C and BIOL A112L with a minimum grade of C.

DN A401 Medical Nutrition Therapy I **3 Credits**
Integrates the role of Medical Nutrition Therapy into the treatment of pathological conditions. Applies the Nutrition Care Process in common medical conditions such as overweight and obesity, gastrointestinal tract disorders, cardiovascular diseases, cancer, psychiatric conditions, and pulmonary diseases.
Registration Restrictions: Admission to the Bachelor of Science in Dietetics and completion of all GER Tier 1 (basic college-level skills) courses with a minimum grade of C
Prerequisites: DN A301 with a minimum grade of C and DN A312 with a minimum grade of C or concurrent enrollment and DN A430 with a minimum grade of C or concurrent enrollment.

DN A402 Medical Nutrition Therapy II **4 Credits**
Continues the integration of Medical Nutrition Therapy into the treatment of pathological conditions. Applies the Nutrition Care Process (NCP) in complex medical conditions such as endocrine disorders including diabetes, hepatic disorders, renal disease, immune system disorders, stress, trauma, critical illness, and neurological disorders. Applies the Nutrition Care Process to pediatric concerns.
Registration Restrictions: Admission to the Bachelor of Science in Dietetics and completion of all GER Tier 1 (basic college-level skills) courses with a minimum grade of C
Prerequisites: DN A401 with a minimum grade of C.

DN A407 Preventive and Therapeutic Nutrition **3 Credits**
Discusses food and nutrition across a range of life stages. Examines the role of food and nutrition in the prevention and management of acute and chronic conditions/diseases such as respiratory reactions, metabolic stress, gastrointestinal disorders, obesity, diabetes, heart disease, cancer, kidney and liver diseases, autoimmune diseases, cognitive impairment, and osteoporosis.
Registration Restrictions: Complete all GER Tier 1 (basic college-level skills) courses with a minimum grade of C
May Be Stacked With: DN A607

DN A415 Community Nutrition **3 Credits**
Applies nutrition principles to populations in various community environments and stages of the life cycle, with consideration given to interrelated health, social, and economic concerns. Examines public policy related to nutrition concerns of target populations, and the marketing and management of community nutrition programs.
Registration Restrictions: Admission to the pre-major in dietetics or the Bachelor of Science in Dietetics or the minor in Hospitality Administration and completion of all GER Tier 1 (basic college-level skills) courses with a minimum grade of C
Prerequisites: DN A151 with a minimum grade of C and DN A203 with a minimum grade of C.
Attributes: UAA Integrative Capstone GER, UAA Intercultural Fluency GER.

DN A430 Research Methods in Nutrition and Dietetics **3 Credits**
Presents fundamentals of research knowledge and skills in the profession of nutrition and dietetics. Addresses research designs commonly used, principles of evidence-based practice, evidence analysis procedures and the preparation of a research proposal.
Registration Restrictions: Complete all GER Tier 1 (basic college-level skills) courses with a minimum grade of C.
Prerequisites: DN A203 with a minimum grade of C and STAT A200 with a minimum grade of C.

DN A450 Dietetic Management **3 Credits**
Covers management and leadership in dietetic practice. Discusses current issues affecting practice, including human resources, outcome management, accreditation, quality assurance and entrepreneurship.
Registration Restrictions: Admission to the Bachelor of Science in Dietetics and completion of all GER Tier 1 (basic college-level skills) courses with a minimum grade of C
Prerequisites: DN A350 with a minimum grade of C.

DN A475 Advanced Nutrition **3 Credits**
Presents basic concepts of the mechanisms of actions, interactions, and the processes of cellular assimilation and utilization of nutrients in humans. Emphasizes the coordinated control of nutrient utilization among the major organs.
Registration Restrictions: Completion of all GER Tier 1 (basic college-level skills) courses with a minimum grade of C
Prerequisites: BIOL A111 with a minimum grade of C and BIOL A111L with a minimum grade of C and BIOL A112 with a minimum grade of C and BIOL A112L with a minimum grade of C and CHEM A321 with a minimum grade of C and CHEM A441 with a minimum grade of C and DN A203 with a minimum grade of C.

DN A492 Senior Seminar in Dietetics **1 Credit**
Explores current dietetic practice through reflection and review of the Accreditation Council for Education in Nutrition and Dietetics (ACEND) Future Education Model Standards for Bachelor's Degree (FB). Requires students to apply prior learning to a practice setting.
Registration Restrictions: Senior standing in the final year of coursework, admission to the Bachelor of Science in Dietetics, and department approval
Prerequisites: DN A100 with a minimum grade of C and DN A203 with a minimum grade of C and DN A301 with a minimum grade of C and DN A350 with a minimum grade of C.

DN A607 Preventive and Therapeutic Nutrition **3 Credits**
Discusses food and nutrition across a range of life stages. Examines the role of food and nutrition in the prevention and management of acute and chronic conditions/diseases such as respiratory reactions, metabolic stress, gastrointestinal disorders, obesity, diabetes, heart disease, cancer, kidney and liver diseases, autoimmune diseases, cognitive impairment, and osteoporosis.
Registration Restrictions: Graduate standing
May Be Stacked With: DN A407

DN A615 Public Health Nutrition **3 Credits**
Analyzes current nutritional epidemiology research and surveillance in population health. Engages students in critical thinking as it relates to nutrition-related policies. Integrates nutrition-related initiatives with grant writing and program planning to affect the public's health.
Registration Restrictions: Graduate standing and admission to the Master of Science in Dietetics and Nutrition

DN A630 Applied Research in Nutrition and Dietetics **3 Credits**
Applies the critical interpretation of dietetics and nutrition research findings to professional practice. Builds on prior didactic coursework in research methodologies. Focuses on the development of evidence-based resources and research proposals.
Registration Restrictions: Graduate standing and admission to the Master of Science in Dietetics and Nutrition

DN A641 Advanced Medical Nutrition Therapy - Ambulatory **3 Credits**
Examines theoretical models as the basis for behavior change and utilizes these models in assessing and coordinating interventions for individuals and groups. Addresses underlying contributors to disease. Covers the appropriate use of laboratory data and dietary supplements.
Registration Restrictions: Graduate standing and admission to the Master of Science in Dietetics and Nutrition

DN A642 Advanced Medical Nutrition Therapy - Acute **3 Credits**
Applies nutrition assessment principles to complex health conditions. Engages students in the use of current literature and clinical practice guidelines to develop nutrition care plans incorporating principles of nutritional genomics, pharmacology, integrative and functional nutrition, and dietary supplements.
Registration Restrictions: Graduate standing and admission to the Master of Science in Dietetics and Nutrition

DN A650 The Business of Dietetics **3 Credits**
Examines best practices in leadership, business, management and organization in the profession of dietetics. Applies functions and principles of organization, project and risk management, and quality and performance improvement for the administration of dietetics and nutrition services in various settings.
Registration Restrictions: Graduate standing and admission to the Master of Science in Dietetics and Nutrition

DN A660 Contemporary Practice in Dietetics and Nutrition **3 Credits**
Covers contemporary subjects within dietetics and nutrition including professional role development, cultural competence, physical activity integration, policy development and advocacy, sustainable food systems and applications of nutrigenetics and nutritional biochemistry. Focuses on emerging trends so that students will be prepared with the latest evidence and practices in their field.
Registration Restrictions: Graduate standing and admission to the Master of Science in Dietetics and Nutrition, or department approval

DN A695G Supervised Experiential Learning - Management **1-7 Credits**
Provides supervised practice in a professional dietetics management setting to facilitate achievement of competencies required by the Accreditation Council for Education in Nutrition and Dietetics (ACEND). Competencies are assigned by the UAA Dietetics and Nutrition Graduate Program director and supervised by qualified preceptors on-site.
Special Note: May be repeated for a maximum of 12 credits.
Registration Restrictions: Graduate standing and admission to the Master of Science in Dietetics and Nutrition

DN A695H Supervised Experiential Learning - Public Health **1-7 Credits**
Provides supervised practice in a professional public health setting to facilitate achievement of competencies required by the Accreditation Council for Education in Nutrition and Dietetics (ACEND). Competencies are assigned by the UAA Dietetics and Nutrition Graduate Program director and supervised by qualified preceptors on-site.
Special Note: May be repeated for a maximum of 12 credits.
Registration Restrictions: Graduate standing and admission to the Master of Science in Dietetics and Nutrition

DN A695I Supervised Experiential Learning - Specialty **1-7 Credits**
Provides supervised practice in a specialty dietetics setting to facilitate achievement of competencies required by the Accreditation Council for Education in Nutrition and Dietetics (ACEND). Competencies are assigned by the UAA Dietetics and Nutrition Graduate Program director and supervised by qualified preceptors on-site.
Special Note: May be repeated for a maximum of 12 credits.
Registration Restrictions: Graduate Standing and admission to the Master of Science in Dietetics and Nutrition

DN A695J Supervised Experiential Learning - Medical Nutrition Therapy - Ambulatory **1-7 Credits**
Provides supervised practice in an ambulatory dietetics setting to facilitate achievement of competencies required by the Accreditation Council for Education in Nutrition and Dietetics (ACEND). Competencies are assigned by the UAA Dietetics and Nutrition Graduate Program director and supervised by qualified preceptors on-site.
Special Note: May be repeated for a maximum of 12 credits.
Registration Restrictions: Graduate Standing and admission to the Master of Science in Dietetics and Nutrition

DN A695K Supervised Experiential Learning - Medical Nutrition Therapy - Acute **1-7 Credits**
Provides supervised practice in an acute dietetics setting to facilitate achievement of competencies required by the Accreditation Council for Education in Nutrition and Dietetics (ACEND). Competencies are assigned by the UAA Dietetics and Nutrition Graduate Program director and supervised by qualified preceptors on-site.
Special Note: May be repeated for a maximum of 12 credits.
Registration Restrictions: Graduate standing and admission to the Master of Science in Dietetics and Nutrition

DN A695L Supervised Experiential Learning - Medical Nutrition Therapy - Acute II **1-7 Credits**
Provides supervised practice in an acute dietetics setting to facilitate advanced achievement of competencies required by the Accreditation Council for Education in Nutrition and Dietetics (ACEND). Competencies are assigned by the UAA Dietetics and Nutrition Graduate Program director and supervised by qualified preceptors on-site.
Special Note: May be repeated for a maximum of 12 credits.
Registration Restrictions: Graduate standing and admission to the Master of Science in Dietetics and Nutrition

DN A698 Dietetics & Nutrition Graduate Project **1-6 Credits**
Serves as the basis for evaluating the capability of its author in the areas of applied community-based nutrition project and professional practice. The student's work is reviewed by their project committee to judge the author's scholarship and professional presentation, and to ascertain that the student has demonstrated their knowledge and ability to receive the Master's Degree.
Registration Restrictions: Graduate standing and admission to the Master of Science in Dietetics and Nutrition

DN A699 Dietetics & Nutrition Graduate Thesis **1-6 Credits**
Serves as the basis for evaluating the capability of its author in the areas of applied nutrition research and professional practice. The student's work is reviewed by their thesis committee to judge the author's scholarship and professional presentation, and to ascertain that the student has demonstrated their knowledge and ability to receive the Master's Degree.
Registration Restrictions: Graduate standing and admission to the Master of Science in Dietetics and Nutrition

Economics (ECON)

Courses

ECON A101 Principles of Microeconomics **3 Credits**
Presents the tools and concepts needed for analysis of economic decision-making at the level of the individual (consumer, firm, government), and explores how these decisions affect market outcomes. Explores the theory of prices and markets, industrial organization, public policy, income distribution, and contemporary problems of labor and business.
Registration Restrictions: Minimum one year of high school algebra
Attributes: UAA Social Sciences GER.

ECON A102 Principles of Macroeconomics **3 Credits**
Theoretical approach to determination of the national income level and economic activity including coverage of the history of macroeconomic theory with special emphasis on economic growth, inflation, business cycles, international finance, and monetary and fiscal policy.
Registration Restrictions: Minimum one year of high school algebra required.
Attributes: UAA Social Sciences GER.

ECON A120 Introduction to Economic Analysis **3 Credits**
Introduces the fundamentals of economic analysis and reasoning and provides tools to analyze the behavior of individuals, firms, communities and government under conditions of unlimited wants and scarce resources.
Attributes: UAA Social Sciences GER.

ECON A210 Environmental Economics and Policy **3 Credits**
Surveys environmental policy emphasizing market-oriented approaches to problems. Covers key environmental concepts, including externalities, cost-benefit analysis, and non-market valuation tools in application to Alaska and global, environmental, and natural resource issues.
Prerequisites: MATH A105 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C.
Attributes: UAA Social Sciences GER.

ECON A227 Introductory Statistics for Economics and Business **3 Credits**
Introduces statistical theory and methods with an emphasis on economics and business applications. Includes descriptive statistics, probability and probability distribution, statistical inference and regression modeling.
Special Note: Students may apply no more than 3 credits from either ECON A227 or STAT A200 toward graduation requirements for a baccalaureate degree.
Prerequisites: BADA A110 with a minimum grade of C and (MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C).

ECON A256 Introduction to Behavioral Economics **3 Credits**
Introduces economics, incorporating insights from psychology. Develops and applies research findings to topics that include personal finance, health, happiness, and the design of public policies.
Prerequisites: WRTG A080 with a minimum grade of C or WRTG A090 with a minimum grade of C or WRTG A110 with a minimum grade of C or WRTG A111 with a minimum grade of C or WRTG A1W with a minimum grade of C.
Attributes: UAA Social Sciences GER.

ECON A300 The Economy of Alaska **3 Credits**
Introduces an overview of the economy of Alaska, including approaches for economic analysis of regional economies, the structure of the Alaska economy, trends in major Alaska industries, and important Alaska economic policy issues.
Special Note: Recommended for students with junior or senior standing. Completion of ECON A101 and/or ECON A102 strongly recommended.

ECON A310 Energy Economics **3 Credits**
Covers economic theory, empirical analysis, and the political economy of energy production, distribution, and end use. Discusses and analyzes regional and global markets for fossil fuels, electricity, nuclear power, and renewable energy sources. Examines energy institutions and public policies such as taxation, efficiency standards, and environmental regulation.
Prerequisites: ((ECON A101 with a minimum grade of C and ECON A102 with a minimum grade of C) or ECON A210 with a minimum grade of C) and (MATH A105 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C).

ECON A312 Econometrics for Business and Economics **3 Credits**
Introduces basic concepts in regression analysis and econometric methods. Applies methods to naturally-occurring and experimental data. Emphasizes applications through use of econometrics software and personal computers.
Registration Restrictions: Familiarity with personal computers and basic software applications.
Prerequisites: (ECON A227 with a minimum grade of C or STAT A307 with a minimum grade of C or STAT A308 with a minimum grade of C) and (ECON A101 with a minimum grade of C or ECON A102 with a minimum grade of C).

ECON A315 Urban and Regional Economics **3 Credits**
Explores economic issues at the community, regional, and state levels. Examines the location of economic activity; models of regional economic growth; the structure of regional economies, migration, housing, and land use issues; and economic policies affecting neighborhoods, communities, cities, and states.
Prerequisites: ECON A101 with a minimum grade of C and ECON A102 with a minimum grade of C.

ECON A321 Intermediate Microeconomics **3 Credits**
Analysis of demand and supply under various market structures, consumer and producer theory, factor pricing and theory of distribution, market failures, and survey of welfare economics.
Prerequisites: ECON A101 with a minimum grade of C and ECON A102 with a minimum grade of C and (MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C).

ECON A324 Intermediate Macroeconomics **3 Credits**
Analysis of the determinants of the aggregate level of employment, output, prices, and income of an economy. Policy issues and applications with special reference to current monetary and fiscal policy.
Prerequisites: ECON A101 with a minimum grade of C and ECON A102 with a minimum grade of C.

ECON A325 History of Economic Thought **3 Credits**
Examines economic thought from Aristotle to the present including mercantilism, classical and neoclassical theory, institutional economics, and socialism.
Prerequisites: ECON A101 with a minimum grade of C and ECON A102 with a minimum grade of C.

ECON A329 Economic and Business Forecasting **3 Credits**
Focuses on the business forecasting methodologies used in today's various industries. Introduces students to basic managerial statistical techniques as well as business forecasting methods and models that are useful for preparing economic and business forecasts and long-term planning.
Prerequisites: ECON A227 with a minimum grade of C or STAT A307 with a minimum grade of C or STAT A308 with a minimum grade of C.

ECON A333 Experimental Economics **3 Credits**
Applies experimental methods to study behavior in economics. Covers topics of public good provision, common pool resources, bargaining, fairness and reciprocity, markets and auctions, mechanism design, and policy analysis.
Prerequisites: ECON A101 with a minimum grade of C.

ECON A337 Development Economics **3 Credits**
Explores economic approaches to the challenge of development. Examines the role of physical and human capital, technology, institutions, geography, and natural resources as sources of growth. Discusses empirical methods used to measure the effects of development policy. Explores key microeconomic features of rural development, including health, education, and financial markets.
Prerequisites: ECON A101 with a minimum grade of C or ECON A102 with a minimum grade of C.

ECON A341 Labor Economics **3 Credits**
Analyzes theoretical and empirical aspects of wage and employment determination. Covers labor supply, labor demand, human capital investments and education, compensating wage differentials, income inequality, inter-generational income mobility, discrimination, immigration, and unemployment.
Prerequisites: ECON A101 with a minimum grade of C and ECON A102 with a minimum grade of C.

ECON A350 Money and Banking **3 Credits**
Examines how financial markets and financial institutions affect the macroeconomic state of the economy, how money is created, the role of central banks in financial regulation, and the implementation of monetary policy.
Prerequisites: ECON A101 with a minimum grade of C and ECON A102 with a minimum grade of C.

ECON A351 Public Finance **3 Credits**
Introduces government taxation, borrowing, and spending. Examines economic effects of taxation and influence of fiscal policy on economic activity.
Prerequisites: ECON A101 with a minimum grade of C.

ECON A363 International Economics **3 Credits**
Studies the pure theory of international trade, including theories of comparative advantage, international monetary theory, and trade policy. Examines international institutions and their role and importance in world trade. Examines the role of free trade agreements and common currency areas.
Prerequisites: ECON A101 with a minimum grade of C and ECON A102 with a minimum grade of C.

ECON A367 Economics of Pandemics **3 Credits**
Surveys topics from epidemiological economics, applied microeconomics, and macroeconomics to help students better understand how policy can shape and mitigate pandemics.
Prerequisites: ECON A101 with a minimum grade of C.

ECON A390 Special Topics in Economics **3 Credits**
Examines current issues, methods, and trends in economics.
Special Note: May be repeated with a change of subtitle/topic. Maximum of 9 elective credits may be used for the BA and BBA Economics degrees. Check class listing for specific titles being offered.
Prerequisites: ECON A101 with a minimum grade of C and ECON A102 with a minimum grade of C.

ECON A435 Natural Resource Economics **3 Credits**
Analyzes natural resource use, conservation, and management, including applications to public policy. Covers resource management models (for renewable and exhaustible resources), externalities in production, pollution, and the complex relationship between natural resources and development. Emphasizes economic modeling (using both graphs and equations) and data analysis.
Prerequisites: ECON A321 with a minimum grade of C.

ECON A445 Methods for Public Policy Evaluation **3 Credits**
Introduces students to the fundamentals of causality and causal inference, empirical techniques for estimating program impacts, methods for identifying parameters of policy interest, and integration of evaluation findings into policy decision making. Evaluates policy using a set of tools designed to assess whether a public program has achieved its intended results.
Prerequisites: ECON A312 with a minimum grade of C or concurrent enrollment or STAT A308 with a minimum grade of C or concurrent enrollment.

ECON A454 Economics Internship **3 Credits**
Work experience in an approved position with supervision and training in applied economics or economic research.
Registration Restrictions: Junior standing, admission to the College of Business and Public Policy and Bachelor of Arts in Economics or Bachelor of Business Administration in Economics, and faculty internship coordinator approval

ECON A456 Behavioral Economics **3 Credits**
Expands on traditional microeconomics by attending to the psychological realism of assumptions and the process of choice. Examines the robustness of heuristics and biases that lead to bounds on human rationality and explores how they can affect well-being for good and for ill. Covers topics that include self-control, social norms and preferences, and risk and uncertainty. Explores applications relating to consumer and firm behavior, finance and investing, and public policy.
Prerequisites: ECON A101 with a minimum grade of C and ECON A102 with a minimum grade of C and ECON A321 with a minimum grade of C or concurrent enrollment.

ECON A492 Seminar in Economic Research **3 Credits**
Integration of principles, theories, and methods learned in courses taken throughout the economics major/program. Requires students to analyze, synthesize, and critically evaluate and apply knowledge of economics in a research project. Requires formal written and oral presentations of the research.
Registration Restrictions: Senior standing
Prerequisites: ECON A312 with a minimum grade of C and ECON A321 with a minimum grade of C and ECON A324 with a minimum grade of C.
Attributes: UAA Integrative Capstone GER.

ECON A602 Introduction to Economics for Managers **3 Credits**
Introduces economic theory and issues for private and public sector managers. Topics include national income and business cycle analysis, money and banking, and the role of government, theory of prices and markets, and international economics.
Registration Restrictions: Graduate standing

ECON A625 Economics and Public Policy **3 Credits**
Applies economic analysis to public policy issues and tools for public management. Uses economics to explain public problems and provide solutions.
Registration Restrictions: Bachelor's degree required.
Prerequisites: ECON A101 with a minimum grade of C and ECON A102 with a minimum grade of C.

ECON A640 Economics of Transportation **3 Credits**
Economic aspects of the transportation industry with special emphasis on problems of regulation and public policy.
Registration Restrictions: Graduate standing and instructor approval

ECON A656 Behavioral Economics for Management & Public Policy **3 Credits**
Expands on traditional microeconomics by attending to the psychological realism of assumptions and the process of choice. Examines behavior that deviates from the rational choice model empirically and theoretically in order to better predict behavior. Explores the impact on consumer and financial markets with an emphasis on informing managerial decision-making and the formulation of public policy.
Registration Restrictions: Graduate standing
Prerequisites: ECON A602 with a minimum grade of C.

ED: Early Childhood (EDEC)

Courses

EDEC A105 Introduction to the Field of Early Childhood Education **3 Credits**
Surveys historical, social, and philosophical foundations of the field of early childhood education. Includes developmentally appropriate practices, observation and documentation, culturally relevant practices, survey of types of early childhood settings, ethics, and professionalism.
Attributes: UAA Social Sciences GER.

EDEC A106 Creativity and the Arts in Early Childhood **3 Credits**
Explores creativity and culturally-rich, art-integrated curriculum in Early Childhood classrooms. Promotes innovative and collaborative practices that highlight ways to connect one's personal identity and build connections to place and culture.

EDEC A107 Child Development and Learning **3 Credits**
Introduces the cognitive, physical, emotional, social and communicative development of children from birth through age 12. Explores the patterns and sequences of development in terms of learning that is occurring in the home, school or community environment. Applies human development and learning theories to formal and informal learning, including cultural considerations. Introduces appropriate teaching and curricular requirements to meet the needs of diverse learners, including children with exceptionalities and dual language learners.
Special Note: This course requires a 10 hour field experience observation. Students must show documentation of a clear background check.

EDEC A108 Health, Nutrition and Wellness for Children Birth-12 **3 Credits**
Examines concepts of health, wellness, safety and nutrition and the relationship to the growth and development of the young child. Emphasizes promoting positive attitudes, working with culturally diverse families, and implementing developmentally appropriate curriculum strategies.

EDEC A190 Selected Topics in Early Childhood **1-3 Credits**
Examines current issues, themes, strategies and/or trends in the field of early childhood education.
Special Note: May be repeated for a maximum of 9 credits.

EDEC A203 Mathematics for Early Childhood Teachers **3 Credits**
Applies effective methods to build and strengthen young children’s problem-solving and reasoning processes. Develops strategies to teach developmental progressions for geometry, measurement, algebraic thinking, statistics, data science, and probability. Creates meaningful learning experiences for young children connecting informal and formal mathematical knowledge with their cultural, linguistic, home, and community experiences.
Prerequisites: EDEC A107 with a minimum grade of C and (MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or STAT A200 with a minimum grade of C).

EDEC A206 Interdisciplinary Curriculum for Young Children **3 Credits**
Examines interdisciplinary curriculum models for young children. Explores interest-based, developmentally appropriate, culturally relevant, and standards-based curriculum.
Special Note: 30 field hours are required. Head Start or Title One recommended.
Prerequisites: EDEC A105 with a minimum grade of C and EDEC A106 with a minimum grade of C and EDEC A107 with a minimum grade of C.

EDEC A210 Guiding Young Children **3 Credits**
Examines the learning principles relevant to guidance of young children. Introduces the social, emotional, and intellectual development of young children and examines implications for effective child guidance and motivation in the classroom.
Special Note: This course requires a 12-hour field experience observation. Students must show documentation of a clear background check.
Prerequisites: EDEC A105 with a minimum grade of C and EDEC A107 with a minimum grade of C.

EDEC A241 Infant and Toddler Development **3 Credits**
Examines the development of infants and toddlers, infant and toddler care programs, the roles of caregivers, and ways to build culturally responsive family engagement. Emphasizes cognitive, language, social, emotional, motor development and the importance of relationships in the care and education of infants and toddlers.
Special Note: Requires 10 observation hours. Students must provide documentation of a clear background check.
Prerequisites: EDEC A105 with a minimum grade of C and EDEC A107 with a minimum grade of C.

EDEC A242 Culturally Responsive Family Engagement **3 Credits**
Examines the importance and complexity of building culturally responsive classrooms that support family and community engagement. The course explores programs that support family-centered principles underlying program planning, implementation, environments and relationship building.

EDEC A292 Early Childhood Practicum Seminar **3 Credits**
Provides an opportunity for the exchange of ideas and experiences during the practicum field placement. Evaluates developmentally appropriate practices and reflects on ethics and professionalism using the NAEYC Professional Preparation Standards and Code of Ethical Conduct.
Registration Restrictions: Must be admitted to practicum, and to the Associate of Applied Science in Early Childhood Development or the Bachelor of Arts in Early Childhood Education
Prerequisites: EDEC A206 with a minimum grade of C and EDEC A210 with a minimum grade of C and EDEC A241 with a minimum grade of C and EDEC A242 with a minimum grade of C.
Corequisites: EDEC A295.

EDEC A295 Early Childhood Practicum **3 Credits**
Supervised field experience in early childhood classroom. Students develop, implement and evaluate elements of a comprehensive, developmentally appropriate curriculum and learning environment.
Special Note: Requires 150 hours of field experience.
Registration Restrictions: Departmental approval, admission to practicum and AAS Early Childhood Development
Corequisites: EDEC A292.

EDEC A303 Young Children in Inclusive Settings **3 Credits**
Examines the principles, issues and concepts of inclusive teaching practices to support young children from birth through age eight. Focuses on research-informed inclusive practices for young children with exceptionalities and those from diverse cultural and linguistic backgrounds.
Special Note: This course requires a 10-hour field experience observation. Students must show documentation of a clear background check.
Prerequisites: EDEC A107 with a minimum grade of C.

EDEC A320 Foundations of Literacy and Language Development **3 Credits**
Explores the foundations and theoretical frameworks of literacy development. Examines literacy components of language, reading, and writing development for various stages, ages, and a range of social and cultural contexts. Introduction to brain research about reading and other evidence-based practices.
Prerequisites: EDEC A107 with a minimum grade of C.

EDEC A321 Language, Reading and Culture **3 Credits**
Examines models of teaching, cultural issues, ways to involve and support families and communities, and specific language and literacy instructional approaches to best support and assess English Language Learners (ELL) and/or dual language learners in the classroom. Explores the relationship between oral proficiency and literacy and culturally responsive teaching and assessment. Emphasizes evidence-based instructional practices which promote language development, particularly in reading and writing success for ELL and/or dual language students.
Special Note: Requires 15 hours of field placement.

EDEC A403 Mathematics and Science in Early Childhood **3 Credits**
Examines the principles, developmental concepts, and curricula designed to promote science and mathematics concepts. Analyzes how young children develop mathematical and scientific thinking. Covers the methods of teaching mathematics and science to young children.
Special Note: Field experience is completed in conjunction with EDEC A495E.
Registration Restrictions: Admission to the School of Education, to the advanced practicum for early childhood education, and department approval
Prerequisites: EDEC A206 with a minimum grade of C and EDEC A210 with a minimum grade of C and (EDEC A203 with a minimum grade of C or MATH A211 with a minimum grade of C or MATH A212 with a minimum grade of C).

EDEC A404 Literacy Methods for Young Children **3 Credits**
Examines the principles of language and reading development. Covers oral language, phonemic awareness, phonics, fluency, vocabulary, spelling, comprehension, and writing, as they relate to the developmental process of learning how to read.
Registration Restrictions: Department approval.
Prerequisites: EDEC A320 with a minimum grade of C.

EDEC A407 Observation, Documentation, and Assessment of Young Children **3 Credits**
Examines the process of observation, documentation, assessment, and analysis. Focuses on this process as a cycle of inquiry and action. Covers formal and informal assessment systems will be covered in relation to literacy and language development. Applies performance evidence to plan next steps of instruction.
Special Note: 15 hours of field experience are required. Not available for credit to students who have completed EDEC A607.
Registration Restrictions: Admission to the School of Education.
May Be Stacked With: EDEC A607
Prerequisites: EDEC A321 with a minimum grade of C.

EDEC A408 Children's Literature: Early Childhood Years **3 Credits**
Explores a variety of children's literature with emphasis on selecting, interpreting, and using quality literature with young children. Discusses current theories and methods about integrating literature into all curriculum areas.
Special Note: Not available for credit to students who have completed EDEC A608.
May Be Stacked With: EDEC A608
Prerequisites: EDEC A320 with a minimum grade of C.

EDEC A490 Selected Topics in Early Childhood Education **3 Credits**
Examines current issues, themes, strategies and/or trends in the field of early childhood education.
Special Note: May be repeated for a maximum of 9 credits with a change of topic.

EDEC A492 Early Childhood Professional Seminar **3 Credits**
Provides an opportunity for the exchange of ideas and experiences during the internship experience. Opportunities for discussion, evaluation, collaboration, and reflection on professional practices.
Special Note: May be repeated once for credit.
Registration Restrictions: Department approval and admission to an internship

EDEC A492Y Early Childhood Student Teaching 1 Seminar **3 Credits**
Provides for the exchange of ideas and experiences with a focus on culturally responsive strategies, trauma-informed practices, and performance-based assessment systems. Discusses and reflects of developmentally appropriate practices and professionalism/ethics using the NAEYC Professional Preparation Standards and Code of Ethical Conduct.
Special Note: Students must be admitted to student teaching 1.
Registration Restrictions: Department approval
Corequisites: EDEC A495Y.

EDEC A492Z Early Childhood Capstone Seminar **3 Credits**
Focuses on performance-based assessment systems with an emphasis on classroom guidance, planning, facilitating instruction, and assessment practices. Includes discussion and reflection of developmentally appropriate practices and professionalism/ethics using the NAEYC Professional Preparation Standards and Code of Ethical Conduct.
Registration Restrictions: Admission to School of Education Early Childhood Student Teaching.
Prerequisites: EDEC A492Y with a minimum grade of C and EDEC A495Y with a minimum grade of P.

EDEC A495 Early Childhood Internship **3-12 Credits**
Advanced professional internship in an early childhood community setting such as Head Start, childcare, hospital, or other agency that serves children and families.
Special Note: May be repeated for a maximum of 15 credits. Community settings must be approved by the department.
Registration Restrictions: Department approval and admission to an internship

EDEC A495Y Early Childhood Student Teaching 1 **3 Credits**
Supervised student teaching 1 in an early childhood classroom. Allows for application of theoretical concepts and principles and emphasizes developmentally and culturally appropriate curriculum instruction, planning, assessment, reflection, classroom management, and professional skills for the field. Students are expected to engage in reflective practice while working with young children.
Special Note: Students must be admitted to student teaching 1.
Registration Restrictions: Department approval

EDEC A495Z Early Childhood Student Teaching 2 **9 Credits**
Supervised student teaching in early childhood classrooms, culminating with a residency. Allows for application of theoretical concepts and principles in the early childhood classroom environment. Emphasizes classroom management, developmentally and culturally appropriate curriculum instruction, planning, assessment, reflection, and professional skills for the field.
Special Note: Students must be admitted to Student Teaching 2 in Early Childhood Education.
Registration Restrictions: Department approval
Prerequisites: EDEC A492Y with a minimum grade of C and EDEC A495Y with a minimum grade of P.
Corequisites: EDEC A492Z.

EDEC A607 Documentation and Assessment of Young Children: Inquiry in Action **3 Credits**
Examines the process of observation, documentation, assessment, and analysis. Focuses on the cycle of inquiry as well as formal and informal assessment systems. Applies knowledge of the assessment cycle to produce a professional artifact that contributes to the Early Childhood field.
Special Note: May require an experiential field placement.
Registration Restrictions: Graduate standing
May Be Stacked With: EDEC A407

EDEC A608 Analysis of Children's Literature: Early Childhood Years **3 Credits**
Intensive study of various genres of children's literature. Analyzes and critiques major historical and contemporary works of children's literature for use in classrooms while selecting, interpreting, and using quality literature with young children.
Registration Restrictions: Graduate standing
May Be Stacked With: EDEC A408

ED: Educational Development & Leadership (EDL)

Courses

EDL A437 Theory and Change in Leadership **3 Credits**
Examines theories and culturally relevant leadership styles that drive organizational transformation. Explores the complexity of change and its impact on organizational culture and cumulative impact on the organization's success. Partners with diverse families and communities rooted in the foundation of social justice.
Registration Restrictions: Junior or senior standing
May Be Stacked With: EDL A637
Prerequisites: EDFN A300 with a minimum grade of C.

EDL A439 Law and Ethics in Early Childhood Leadership **3 Credits**
Examines professional practices required for understanding and implementing political, legal and ethical practices within early educational settings. Analyzes legal and policy issues that impact operations to promote child and family success. Integrates professional practice standards.
May Be Stacked With: EDL A639

EDL A610 Orientation to Graduate Studies in Leadership **2 Credits**
Provides an orientation to the scholar-practitioner model of study in the Educational Leadership Program. The orientation provides an overview of the knowledge, skills and dispositions for successful culturally proficient educational leadership. Areas of overview include leadership traits, issues of equity and social justice, writing skills and research skills, awareness of the National Educational Leadership Preparation Standards (NELPs), Alaskan Administrator Standards, Cultural Standards for Alaska Educators, SOE-Graduate Studies in Educational and Leadership Standards (GSEL), and International Society of Technology Educators-Education Leader Standards.
Registration Restrictions: Admission to the Master of Education in Educational Leadership or the Graduate Certificate in Education Leadership: Principal and graduate standing

EDL A620 Leadership in Alaska Culture and Social Justice Issues **3 Credits**
Examines cultural proficiency from personal and professional perspectives. Reflects on the effects of historical trauma of Alaska Natives in rural and urban settings. Explores educational leadership strategies to support culturally responsive practices and social justice.
Registration Restrictions: Graduate standing and admission to the School of Education

EDL A621 Leadership in Special Education **3 Credits**
Explores the principles, practices, and challenges of leadership in special education, including current issues, data-supported decision-making practices, allocation of district resources, ethical discipline practices, and collaboratively working with families. Equips students with the knowledge and skills to lead effectively in diverse special education settings.
Registration Restrictions: Graduate standing

EDL A637 Organizational Theory and Change **3 Credits**
Examines organizational theories and culturally relevant leadership styles that drive organizational transformation. Explores the complexity of change and its impact on organizational culture and cumulative impact on the organization's success. Emphasizes the foundation of social justice as an organizational response within diverse communities.

Registration Restrictions: Admission to the School of Education and graduate standing. Instructor approval required if prerequisite is not met.
May Be Stacked With: EDL A437
Prerequisites: EDL A610 with a minimum grade of P.

EDL A638 Instructional Leadership and Student Learning **3 Credits**
Examines instructional leadership and how it impacts the operations of the school and the district. Analyzes innovative approaches to instructional leadership in K-12 schools, with attention to instructional practice, curriculum development, professional development, and feedback to improve teacher practice and assessment of student learning in a culturally responsive environment, and the design and implementation of school improvement plans.
Registration Restrictions: Admission to the School of Education and graduate standing.
Prerequisites: EDL A610 with a minimum grade of P.

EDL A639 Politics, Law and Ethics in Leadership **3 Credits**
Examines the knowledge and skills required for implementing political, legal and ethical practices within an educational setting. Analyzes legal and policy issues and politics that impact the operations and delivery of public education to promote student and adult success. Integrates professional practice standards, school board policies and regulations, and constitutional, statutory, administrative, and case law.
Registration Restrictions: Graduate standing and admission to the School of Education.
May Be Stacked With: EDL A439
Prerequisites: EDL A610 with a minimum grade of P.

EDL A644 School Resource Allocation and Management **3 Credits**
Examines the school administrator's role and responsibility in the operational responsibilities of effective school leadership. Explores major leadership responsibilities related to student support services, human resources, finance and budgeting, maintaining school buildings and grounds, and parent and community engagement.
Prerequisites: EDL A610 with a minimum grade of P and EDL A637 with a minimum grade of B and EDL A638 with a minimum grade of B.

EDL A692A Principal Seminar I **3 Credits**
Facilitates discussions and prompts critical reflection of internship topics in a seminar setting. Facilitates the application of theory to practice through internship field-based work in diverse K-12 school settings. Promotes professional networking with current school and district-level administrators.
Registration Restrictions: Admission to the School of Education, graduate standing, and admission to the EDL Principal Internship
Corequisites: EDL A695.

EDL A692B Principal Seminar II **3 Credits**
Facilitates discussions and prompts critical reflections of internship topics in a seminar setting. Facilitates the self-assessments of internship achievements to reflect and assess professional growth and to aid the transition to an educational leadership position. Prepares candidates for final program assessments.
Registration Restrictions: Admission to the School of Education, graduate standing, and admission to the EDL Principal Internship
Prerequisites: EDL A692A with a minimum grade of P.
Corequisites: EDL A695.

EDL A695 Principal Internship **3-6 Credits**
Provides principal candidates, under the supervision of knowledgeable and expert practitioners in multiple and diverse school settings, the opportunity to synthesize and apply the skills and knowledge identified by the National Educational Leadership Preparation (NELP) standards. Provides candidates with coherent, authentic, and sustained experiences that approximate the full range of responsibilities required of school building-level leaders.
Special Note: This field-based course follows the K-12 administrator's calendar in the district of intern placement. Intern placements are decided collaboratively between the EDL program, the intern, and districts, emphasizing placements with experienced mentors situated in diverse educational settings. The Educational Leadership Program faculty supervise the internship (NELP 8.3).
Registration Restrictions: Admission to the School of Education, graduate standing, and admission to the EDL Principal Internship

ED: Elementary Education (EDEL)

Courses

EDEL A205 Becoming an Elementary Teacher **3 Credits**
Introduction to field of elementary education and the process of becoming a reflective elementary teacher. Overview of core topics, including learning theories, a critical review of motivation theories, observation strategies, communicating with children, and teaching and learning in sociocultural context.
Special Note: Requires a 20-hour field assignment that must be arranged by the College of Education. Partners may limit registration.
Prerequisites: EDFN A101 with a minimum grade of C and (WRTG A111 with a minimum grade of C or WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C or ENGL A311 with a minimum grade of C or ENGL A312 with a minimum grade of C or ENGL A414 with a minimum grade of C).

ED: Engaged Leadership (EDEN)

Courses

EDEN A600 Education, Culture, and Leadership Orientation **3 Credits**
Analyzes the underlying issues within contemporary educational policies, practices, and theories connected to the Alaska context in urban, rural, and diverse settings. Explores, analyzes, and evaluates the roles of social justice, culturally responsive practices, innovations, and inquiries in personal and professional settings.
Registration Restrictions: Graduate standing and admission to the School of Education

EDEN A601 Inquiry-Based Scholarship: Quantitative, Qualitative, Mixed-Modes I **3 Credits**
Guides students in inquiry-based scholarship, focusing on planning and production of student-initiated and developed research. Examines qualitative, quantitative, and mixed-method research methodologies with an emphasis on inquiry in action research, evaluation, and data-informed decision-making. Begins the transition from experienced practitioners to scholar-practitioners with refined skills to read, understand, analyze, write, and evaluate various kinds of research and scholarship.
Registration Restrictions: Graduate standing and admission to the School of Education
Prerequisites: EDEN A600 with a minimum grade of B.

EDEN A602 Inquiry-Based Scholarship: Quantitative, Qualitative, Mixed-Modes II **3 Credits**
Guides students in advanced inquiry-based research methodologies that utilize qualitative, quantitative or mixed-method inquiry in action research, evaluation and data-informed decision making. Supports the transition from being experienced practitioners to scholar-practitioners, with refined skills in reading, understanding, analyzing and evaluating educational research and scholarship used to support educational practice.
Registration Restrictions: Graduate standing and admission to the School of Education
Prerequisites: EDEN A600 with a minimum grade of B and EDEN A601 with a minimum grade of B.

EDEN A611 Engaged Leadership: Ethics and Stewardship **3 Credits**
Examines ethical considerations in organizational decision making and practice. Emphasizes stewardship as a personal obligation for engaged leaders who foster the well-being of individuals, the organization and society. Builds understanding of the behaviors that facilitate effective leadership in organizations.
Registration Restrictions: Graduate standing, admission to the School of Education and the Doctor of Education in Education, Culture, and Leadership
Prerequisites: EDEN A600 with a minimum grade of B.

EDEN A613 Leading Change and Innovation **3 Credits**
Analyzes and evaluates current research on the adoption and implementation of theories of organizational change. Applies a specific focus on the role of leaders in engaging organizations effectively in adaptive and innovative approaches.
Registration Restrictions: Graduate standing, admission to the School of Education and the Doctor of Education in Education, Culture, and Leadership
Prerequisites: EDEN A600 with a minimum grade of B.

EDEN A615 Law, Policy and Advocacy **3 Credits**
Examines the nature of policy and the policy-making process in relation to public entities, private enterprise and stakeholder groups. Examines legal and advocacy issues through a study of Alaska's policies and changing needs.
Registration Restrictions: Graduate standing
Prerequisites: EDEN A600 with a minimum grade of B.

EDEN A617 Engaging Communities **3 Credits**
Explores roles and responsibilities of leaders in engaging communities in critical inquiry, linking current concerns to problem solving, community building, leadership development and action.
Registration Restrictions: Graduate standing, admission to the School of Education and the Doctor of Education in Education, Culture, and Leadership
Prerequisites: EDEN A600 with a minimum grade of B.

EDEN A690 Current Topics in Engaged Leadership **1-3 Credits**
Explores current issues, topics and trends in engaged leadership.
Special Note: May be repeated twice with a change of subtitle for a maximum of 3 credits.
Registration Restrictions: Admission to doctoral program
Prerequisites: EDEN A600.

EDEN A695 Internship in Engaged Leadership **1-3 Credits**
Internship in an approved organizational setting.
Registration Restrictions: Admission to doctoral program and advisor approval
Prerequisites: EDEN A600.

EDEN A699A Applied Dissertation Part I: Designing the Proposal **3 Credits**
Guides students through designing the proposal for the applied dissertation project examining a problem of practice within the student's professional context.
Registration Restrictions: Graduate standing, admission to the School of Education and the Doctor of Education in Education, Culture, and Leadership
Prerequisites: EDEN A602 with a minimum grade of B.

EDEN A699B Applied Dissertation Part II: Conducting Research **3 Credits**
Provides opportunity to conduct independent research under the supervision of a committee for the applied dissertation in the Doctor of Education in Education, Culture, and Leadership.
Special Note: May be repeated twice for credit.
Registration Restrictions: Graduate standing, admission to the School of Education and the Doctor of Education in Education, Culture, and Leadership
Prerequisites: EDEN A699A with a minimum grade of P.

EDEN A699C Applied Dissertation Part III: Reporting Results **3 Credits**
Presents the applied dissertation report. Prepares and presents a leadership portfolio showcasing achievements, knowledge, and skills developed through the applied dissertation process and reflections on related scholarly experiences in the Doctor of Education in Education, Culture, and Leadership.
Registration Restrictions: Graduate standing, admission to the School of Education and the Doctor of Education in Education, Culture, and Leadership
Prerequisites: EDEN A699B with a minimum grade of P.

ED: Foundations (EDFN)

Courses

EDFN A101 Introduction to Education **3 Credits**
Introduces education as a possible career choice. Covers the history of American education, an examination of contemporary issues in education, and basic classroom observational techniques. Students self-assess personal profile against characteristics of effective teachers. Course includes ten hours of field experience in a P-12 setting and may require a background check.

EDFN A190 Selected Topics in Education **1-3 Credits**
Examines current issues, themes, strategies, and/or trends in the field of education.
Special Note: May be repeated for a maximum of 6 credits.

EDFN A292 Education Practicum Seminar **3 Credits**
Provides an opportunity for the exchange of ideas and experiences during the practicum field placement. Students discuss and evaluate developmentally appropriate practices and reflect on ethics and professionalism using the State of Alaska Code of Ethics of the Teaching Profession.
Registration Restrictions: Admission to the School of Education
Prerequisites: EDEC A107 with a minimum grade of C or PSY A150 with a minimum grade of C.
Corequisites: EDFN A295.

EDFN A295 Education Practicum **3 Credits**
Provides supervised field experience in a P-12 classroom. Students develop, implement, and evaluate elements of a comprehensive, developmentally appropriate curriculum and learning environment.
Special Note: Requires 150 hours of field experience.
Registration Restrictions: Department approval
Corequisites: EDFN A292.

EDFN A300 Philosophical and Social Context of American Education **3 Credits**
Explores significant educational movements, theories, and research related to educational philosophy, sociology, and history to develop a framework for professional educational practice in Alaska. Emphasizes the importance of developing a coherent philosophy to guide teaching practice in a culturally diverse and inclusive classroom.
Registration Restrictions: Completion of Tier 1 (basic college-level skills) GER courses
Attributes: UAA Integrative Capstone GER.

EDFN A304 Comparative Education **3 Credits**
Compares P-12 educational systems and issues across nations and regions, focusing on case examples representing diverse cultural, historical, and political contexts. Examines theories in comparative education; purposes of schooling; socio-cultural contexts of education; policy, curricular, and pedagogical responses to diversity issues; and organizational and structural issues.
Registration Restrictions: Completion of all GER Tier 1 (basic college-level skills) courses and junior standing.
Attributes: UAA Integrative Capstone GER, UAA Intercultural Fluency GER.

EDFN A478 Issues in Alaska Native Education, K-12 **3 Credits**
History of Alaska education and current education policy with a focus on issues in Alaska Native education. Includes the study of the Alaska environment as well as the social, economic and political history of Alaska from the perspective of both Alaska Native people and immigrant residents.
Special Note: This course meets the Alaska Department of Education and Early Development Alaska Studies requirement for state certification.
Registration Restrictions: Departmental approval
Attributes: UAA Alaska Native-Themed GER.

EDFN A492A Connecting 21st Century Skills with Culturally Responsive Teaching **3 Credits**
Educators play a significant role in the cultivation of 21st Century Skills. By weaving together the four Cs (Creativity, Communication, Critical Thinking, and Collaboration) and Culturally Responsive Teaching, it will promote a healthy and responsive learning environment to support Alaska's children's success. In addition, this will lead to competency and confidence in teaching.
Special Note: Must be enrolled in an internship in the School of Education.
Registration Restrictions: Registration by Instructor approval.

EDFN A601 Educational Philosophy, History and Sociology **3 Credits**
Examines significant educational philosophies, historical periods, and complex sociocultural, political and policy forces that have influenced and continue to shape education. Analyzes major educational reform efforts. Explores belief systems, values, worldviews and philosophy within the context of school experiences. Encourages self-assessment and reflection with the goal of improving professional teaching practice.

Registration Restrictions: Graduate standing

EDFN A602 Foundations: Educational Psychology **2 Credits**
Examines significant educational movements, theories, and research in the areas of educational psychology. Develops a framework for professional practice. Includes study of theory, development, pedagogy, and instructional practice. Focus is on the teacher's role and responsibility in lesson development, curriculum design, instructional methods, and integration of relevant educational psychology.
Registration Restrictions: Graduate standing and department approval required

EDFN A603 Foundations: Educational History and Sociology **2 Credits**
Examines significant educational historical periods. Explores how the current social, political, and policy forces came into existence and how they influence the day-to-day environment of today's teacher. Includes the development of belief system and worldview through examining key school experiences. Major educational reform efforts will be analyzed.
Registration Restrictions: Graduate standing and department approval required

EDFN A621 Culture, Language and Literacy **3 Credits**
Examination of the theoretical underpinnings of bilingual/cross-cultural and English as a second language (ESL) education as they apply to literacy issues. Special attention is given to research findings on first and second language acquisition and subsequent implications for the teaching of reading and writing.
Registration Restrictions: Graduate standing in the College of Education

EDFN A636 Innovations in Teaching and Learning **3 Credits**
Significant and emerging theories of teaching and learning. Reviews current educational reform efforts and examines the research base of each initiative to assess potential effectiveness.
Registration Restrictions: Graduate standing

EDFN A645 Culturally Sustaining Literacy for P-6 English Language Learners **3 Credits**
Examines how children learn language and become literate in their first and subsequent languages. Integrates structure of language and its application to the development and assessment of language and literacy for English language learners including Alaska Native populations. Explores implications of culturally sustaining pedagogy on academic literacy practices.
Registration Restrictions: Graduate standing, department approval and admission to the Language Education Graduate Certificate program

EDFN A646 Culturally Sustaining Instruction in Science, Technology Engineering, Arts and Mathematics (STEAM) **3 Credits**
Focus on assessment and science inquiry methods to promote science literacy and academic English proficiency for linguistically diverse students (including Alaska Native populations). Both Alaska Native and Western ways of knowing about the environment are addressed throughout this course. Discusses the cognitive academic language demands of school science. Integrates research-based science teaching strategies for supporting academic language development, including reading, writing, oral language, and auditory comprehension skills.
Registration Restrictions: Graduate standing, department approval and admission to the Language Education Graduate Certificate program
Prerequisites: EDSY A668.
Corequisites: EDFN A689.

EDFN A647 Developing Literacies Across the K-12 Continuum **1 Credit**
Analysis and evaluation of current learning theory, models, and best practices for developing literacies, including visual, literary, and performing arts, in order to design appropriate pedagogy across the K-12 continuum.
Registration Restrictions: Graduate standing and department approval
Prerequisites: EDFN A478 with a minimum grade of D and EDFN A602.

EDFN A670 Current Topics in Education **1-3 Credits**
Study of specific current issues, techniques and trends affecting educators.
Special Note: May be repeated for credit with a change of subtitle. Restricted enrollment may apply; see advisor for applicability to degree program.
Registration Restrictions: Graduate standing and instructor approval

EDFN A689 Action Research Experience: Culturally Sustaining Pedagogy for English Language **1-6 Credits**
Action research project in P-6 classroom to support the development of academic language proficiency and culturally sustaining pedagogy with an emphasis on theory-based inquiry into teaching and learning with English language learners and Alaska Native children.
Registration Restrictions: Graduate standing, department approval and admission to the Language Education Graduate Certificate program
Prerequisites: EDSY A668.
Corequisites: EDFN A646.

EDFN A691 Current Topics in Second Language Education **1-3 Credits**
Focuses on second-language education, based on current research and first-hand experience from successful, established programs. Intended for administrators; early-childhood, elementary, secondary modern language or ESL teachers; and others planning to implement a second-language education program or currently participating in an established program.
Registration Restrictions: Graduate standing; basic fluency in a second language desirable

EDFN A695 Internship **1-9 Credits**
Supervised internship in a K-12 public school. Includes periodic on-campus seminars that emphasize theory-based inquiry into teaching and learning.
Special Note: This course operates in accordance with the K-12 school year calendar, not the university academic year calendar. Placement is arranged and supervised by the university in partnership with staff from the public school site. Partners may limit registration. Completion of 9 credits is required for the MAT.
Registration Restrictions: Graduate standing and department approval
Prerequisites: EDFN A601 with a minimum grade of C and EDFN A602 with a minimum grade of C and EDFN A603 with a minimum grade of C.

EDFN A698 Individual Research **1-6 Credits**
As directed by graduate committee.
Registration Restrictions: Graduate standing and instructor approval

ED: Indigenizing Education (EDIE)

Courses

EDIE A612 Indigenous Epistemologies in Alaska **3 Credits**
Examines, analyzes and applies Indigenous knowledge systems with a focus on Alaska Native epistemologies.
Registration Restrictions: Graduate standing

EDIE A630 Indigenous Ways of Knowing **3 Credits**
Examines and describes Alaska Native cultures and ways of being using history, culture, and the social context. Covers Indigenous approaches to values, behavior, balance, interconnection of family and community through cultural ways of knowing, and the importance of Elders and ancestors for life towards resiliency and reciprocity as culture adapts to national and global societies. Examines Alaska Native traditional values as holistic approaches towards wellness and healing as a critical concept.
Registration Restrictions: Graduate standing

EDIE A641 Indigenizing Learning and Organizations **3 Credits**
Examines the complexity of Indigenizing institutions and workplaces to build space for Indigenous and Otherized populations' academic learning, resistance, and reconciliation. Strategizes the advancement and transformation of systemic spaces that shift Eurocentric perspectives and dynamics within systems to Indigenous perspectives.
Registration Restrictions: Graduate standing

EDIE A658 Indigenizing Teaching and Education System **3 Credits**
Examines the relationships among policy, pedagogy, and practice in Western and Indigenous educational systems and views of citizenship. Identifies and compares community resources and holistic teaching from different worldviews applying local, national, and global perspectives. Examines pedagogical implications of cultural interfaces to shift towards cultural responsiveness and sustaining teaching practices and education systems. Emphasizes awareness of Otherized populations' practices, beliefs, values, and worldviews and the role these play in working for systemic change in local communities.
Registration Restrictions: Graduate standing

EDIE A664 Tribal Governance in Education **3 Credits**
Examines historical context of policies and laws related to tribal governance that led to tribal compacting in education. Analyzes case studies of tribal laws and governance structures and practices from historical and community-based perspectives. Explores implications of tribal law for communities to enact self-governance in schools and other organizations.
Registration Restrictions: Graduate standing

ED: Reading & Literacy (EDRL)

Courses

EDRL A671 Language, Reading, and Culture **3 Credits**
Examines the relationships between theory and practice as it relates to language and literacy development. Emphasis on community resources, as well as a focus on the role of bilingualism, multiculturalism, and multimodal forms of literacies will be foregrounded. Pedagogical implications related to culturally relevant, responsive, and sustaining practices will be examined. This course will also provide an introduction to ethnographic models for research, and qualitative methods for collecting data. Emphasis will be placed on candidates developing the skills and dispositions to become researchers of culture, language, and literacy in their own communities.
Registration Restrictions: Admission to the School of Education, graduate standing, and departmental approval

EDRL A674 Foundational Theories of Language and Literacy Development **3 Credits**
Explores the historical and theoretical lenses that have informed perspectives on literacy and bi/multiliteracy learning and practices. Content includes foundational theories of reading and language development (first and subsequent languages), how they emerged in relation to one another throughout history, and research on language, cognition and language systems, as they relate to literacy development. The course will emphasize connections between theory and practice, and how theoretical stances inform how we design learning experiences and contexts.
Registration Restrictions: Admission to the School of Education, graduate standing, and departmental approval

EDRL A675 Language and Literacy Methods **3 Credits**
Examines how children learn language and become literate in their first and subsequent languages. Focuses on the development and assessment of reading, writing, listening and speaking skills for all students, including English language learners. Explores implications of culturally sustaining pedagogy on academic literacy practices.
Registration Restrictions: Admission to the School of Education, graduate standing, and departmental approval
Prerequisites: EDFN A674 with a minimum grade of C.

EDRL A679 Language and Reading in the Content Areas **3 Credits**
Focuses on the development of knowledge of academic language and reading in the disciplines for P-12 teachers. The course will emphasize the interrelated processes of writing, reading, listening, and speaking and will examine the ways in which educators can build routines to support social climate, students' identity development, extensive use of cognitive strategies, and culturally sustaining approaches to knowledge building across the disciplines.
Registration Restrictions: Admission to the School of Education, graduate standing, and departmental approval

EDRL A680 Instruction and Assessment **6 Credits**
Focuses on effective methods of supporting P-12 students' growth in reading, writing, and discussion. Develops effective practices for a broad range of students, including English learners and those with specific needs. Topics include: motivation, reading comprehension, word identification, vocabulary development, reading process and writing process. The Alaska Content Standards in English Language Arts and the assessment of reading and writing skills and student proficiencies are central to this course.
Registration Restrictions: Admission to the School of Education, graduate standing, and departmental approval
Prerequisites: EDFN A675 with a minimum grade of C.

ED: Research (EDRS)

Courses

EDRS A660 Fundamentals of Research in Education **3 Credits**
Examines fundamentals in education research. Reviews, analyzes and evaluates research to enhance knowledge of and skills in conducting educational research. Provides foundation for additional research courses.
Registration Restrictions: Graduate standing or instructor permission

EDRS A661 Data-Informed Instruction and Decision Making **3 Credits**
Focuses on the educators' or service providers' understanding, analysis, and application of data related to (1) student or client achievement, (2) student or client behavior/engagement, (3) teacher or practitioner practice and instruction, and (4) school/class/program context or culture to inform decisions related to planning, instruction or actions.
Registration Restrictions: Graduate standing or instructor permission
Prerequisites: EDRS A660 with a minimum grade of B or EDSY A661 with a minimum grade of B.

EDRS A662 Action Research in Education **3 Credits**
Examines theory and practice of action research in education. Analyzes and evaluates action research and supports the development of an action research project.
Registration Restrictions: Graduate standing or instructor approval
Prerequisites: EDRS A660 with a minimum grade of B.

EDRS A667 Program Evaluation Fundamentals **3 Credits**
Introduces and explores purpose, process and utility of program evaluation. Examines types and models of program evaluation, and the roles of partners, clients and stakeholders. Provides practice in the selection of models, the development of evaluation program designs and logic models, and the steps and activities associated with program evaluations.
Registration Restrictions: Graduate standing or instructor permission
Prerequisites: EDRS A660 with a minimum grade of B.

EDRS A668 Qualitative Research in Education **3 Credits**
Addresses major qualitative research traditions and methods, common and developing issues, and essential processes as applied within the field of education.
Registration Restrictions: Graduate standing or instructor approval
Prerequisites: EDRS A660 with a minimum grade of B.

ED: Secondary Education (EDSY)

Courses

EDSY A661 Assessment in Secondary Classrooms **3 Credits**
Fundamentals of standards-based curriculum planning and assessment for the diverse student populations in middle and high school classrooms. Focuses on the development of professional teaching dispositions and practices appropriate for secondary curricula.
Registration Restrictions: Graduate standing

EDSY A668 Teaching English as a Second Language in Secondary Schools **3 Credits**
Fundamentals of standards-based, integrated curriculum planning and assessment for the diverse student populations in secondary classrooms. Includes content areas typically taught in secondary English as a second language/bilingual curriculum. Focuses on the development of professional teaching dispositions and practices appropriate for secondary curricula. Integrates technology and all forms of literacy.
Special Note: Concurrent enrollment in internship is required.
Registration Restrictions: Graduate standing and department approval
Prerequisites: EDFN A601 with a minimum grade of C and EDFN A602 with a minimum grade of C and EDFN A603 with a minimum grade of C.

ED: Special Education (EDSE)

Courses

EDSE A602 Best Practices in Inclusive Education **3 Credits**
Develops, implements and evaluates Individualized Education Programs (IEPs) for students with diverse learning needs. Provides in-depth understanding of evidence-based practices for supporting students with disabilities. Emphasizes inclusive educational settings and collaborative skills needed to work effectively with other professionals.
Registration Restrictions: Graduate standing

EDSE A607 Foundations for Infant and Toddler Social Emotional Health and Development **3 Credits**
Examines infant and toddler development within the context of caregiving relationships. Topics include developmental theory, attachment and emotional relationships, social development and learning, and cultural and societal influences on early childhood development.
Special Note: This course requires 15 hours of field experience and may require a background check.
Registration Restrictions: Admission to the School of Education, graduate standing, and departmental approval

EDSE A610 Clinical Assessment: Eligibility and Program Planning **3 Credits**
Provides a practical, applied approach for analyzing and synthesizing assessment for eligibility, program planning, progress monitoring, and transition. Covers techniques for formal and informal tools and procedures with a review of terminology and statistics. Emphasizes concepts related to assessment including MTSS, culturally and linguistically diverse learners, academically diverse learners, and accommodations and modifications.
Registration Restrictions: Graduate standing

EDSE A610Y Assessment of Infants & Toddlers in Early Childhood Special Education **3 Credits**
Provides a practical, applied approach of methods for assessing infants and toddlers with special needs in partnership with families. Course emphasizes methods used for eligibility determination, intervention and program planning. Administration and interpretation of authentic assessments and standardized, norm-referenced tools are emphasized along with special considerations for children from diverse linguistic and cultural backgrounds.
Special Note: Course includes a 30 hour field experience and may require a background check.
Registration Restrictions: Graduate standing, admission to the School of Education, and admission to the Special Education Program or graduate certificate in Children's Mental Health
Prerequisites: EDSE A607 with a minimum grade of C.

EDSE A611Y Assessment in Preschool Special Education **3 Credits**
Provides a practical, applied approach for analyzing and synthesizing assessment information for eligibility, program planning and progress monitoring with children 3-5 years old. Emphasizes concepts related to authentic and play-based assessment, curriculum-based assessments, multi-tiered systems of support and applications for cultural and linguistically diverse populations.
Special Note: This course includes a 15 hour field experience and may require a background check.
Registration Restrictions: Graduate standing and admission to the School of Education or to the College of Arts and Sciences
Crosslisted With: PSY A611Y
Prerequisites: EDEC A107 with a minimum grade of C or PSY A150 with a minimum grade of C or PSY A365 with a minimum grade of C.

EDSE A612 Curriculum and Strategies I: Low Incidence **3 Credits**
Development, implementation and evaluation of IEPs for students with intensive needs (e.g., autism, multiple disabilities, physical disabilities). Provides in-depth understanding of evidence-based practices for supporting students with low incidence disabilities. Emphasizes inclusive educational settings and collaborative skills needed to work effectively with parents and other professionals to provide a comprehensive inclusive program to students with intensive needs.
Special Note: Course includes 15 hours of field experience.
Registration Restrictions: Graduate standing and departmental approval.

EDSE A622 Curriculum and Strategies II: High Incidence **3 Credits**
Development, implementation, and evaluation of IEPs for students with mild to moderate learning and behavior challenges. Provides in-depth understanding of best practice strategies for supporting students with high incidence disabilities. Emphasizes inclusive educational settings and collaborative skills needed to work effectively with other professionals.
Special Note: Course includes 15 hours of field experience.
Registration Restrictions: Graduate standing, admission to the School of Education, and department approval

EDSE A622Y Strategies and Interventions: Infant and Toddler Special Education **3 Credits**
Provides in-depth understanding and application of best practices in evidence-based intervention strategies for infants and toddlers with disabilities or developmental delays, including those at-risk. Focuses on family-centered routines- and activity-based intervention in the home and infant/toddler early care settings.
Special Note: Course requires a 15-hour field placement and may require a background check.
Registration Restrictions: Graduate standing, admission to the School of Education, admission to the Special Education Program or graduate certificate in Children's Mental Health
May Be Stacked With: EDSE A422Y
Prerequisites: EDSE A607 with a minimum grade of C.

EDSE A623 Language and Literacy: Best Practices in Assessment and Intervention **3 Credits**
Current research on literacy acquisition, assessment, and intervention. Emphasizes use of evidence-based practices in assessment and intervention. Identifies the link between language and literacy development and intervention. Considers academic, cultural, and linguistic diversity.
Registration Restrictions: Graduate standing

EDSE A623Y Strategies and Interventions: Preschool Special Education **3 Credits**
Provides a critical study and application of best practices in evidence-based intervention strategies for preschool-aged children with disabilities, developmental delays or those at-risk for delays. Focuses on inclusive practices, tiered instructional approaches, and the application of routines-based and activity-based intervention in preschool settings.
Special Note: This course requires 15 hours of field experience and may require a background check.
Registration Restrictions: Graduate standing and admission to the School of Education or the College of Arts and Sciences
Crosslisted With: PSY A623Y
Prerequisites: EDEC A107 with a minimum grade of C or PSY A150 with a minimum grade of C or PSY A365 with a minimum grade of C.

EDSE A624 Social/Emotional Development, Assessment, and Intervention **3 Credits**
Current research in both normal and abnormal social/emotional development. Emphasizes the use of research-based practices in assessment and intervention. Explores academic and cultural diversity in the social/emotional growth of students with learning differences.
Registration Restrictions: Graduate standing

EDSE A625 Teaching Mathematics to Special Learners **3 Credits**
Provides assessment and instructional strategies in mathematics for teachers of students with disabilities. Focuses on standards-based instruction, explicit instruction, curriculum-based assessments, and preparation of students for high stakes testing.
Registration Restrictions: Graduate standing

EDSE A632 Special Education Law: Principles and Practices **3 Credits**
Provides an in-depth examination of the legal framework surrounding special education in the United States. Explores federal and state laws, regulations, and court decisions that govern the rights and responsibilities of students with disabilities, their parents, and educational institutions. Covers the Individuals with Disabilities Education Act (IDEA), Section 504 of the Rehabilitation Act, the Americans with Disabilities Act (ADA), landmark cases, due process, and dispute resolution mechanisms.
Registration Restrictions: Graduate standing

EDSE A674 Family Partnerships in Early Childhood Special Education **3 Credits**
A family systems approach to the intervention for young children with disabilities. Methods in using tools that promote family involvement in the intervention are emphasized.
Registration Restrictions: Graduate standing.

EDSE A677 Multidisciplinary Seminar in Children's Mental Health **1 Credit**
Provides an interdisciplinary approach to working with children and families in a variety of behavioral/mental health and educational settings.
Special Note: Course is one credit per semester over two sequential semesters.
Registration Restrictions: Graduate standing
Crosslisted With: PSY A677 and SWK A677

EDSE A686 Transition Services for Secondary Students with Disabilities **3 Credits**
In-depth examination of issues related to transition programming for secondary students with disabilities within educational, personal/social and community-based settings. Content addresses transition planning processes, curricular implications, curriculum-based vocational assessment and community-based instruction.
Special Note: Course includes 15 hours of field experience.
Registration Restrictions: Graduate standing, admission to the School of Education, and department approval

EDSE A691 Children's Mental Health Systems of Care **3 Credits**
Examines systems of care as a coordinated network of home, community, and school-based services and supports that are multidisciplinary and in partnership with children, youth and families. Addresses the cultural and linguistic needs of families in order to promote healthy development and meet the challenges of children and youth with mental and behavioral health needs.
Registration Restrictions: Graduate standing
Crosslisted With: PSY A691 and SWK A691

EDSE A692 Internship Seminar in Special Education Teaching **1 Credit**
The seminar is an ongoing exchange during students' internship experience where interns are both participants and developers. Students share their own experiences and engage in and discuss what it means to participate in an ongoing process of professional development as teachers and learners in their classrooms and school communities.
Special Note: Must be enrolled in one of the following internships: EDSE A695E or EDSE A695S.
Registration Restrictions: Graduate standing, admission to the School of Education, and department approval
Prerequisites: EDSE A610 and EDSE A612 and EDSE A622 and EDSE A623 and EDSE A624 and EDSE A625.

EDSE A692Y Internship Seminar in Early Childhood Special Education Teaching **1 Credit**
Provides students with opportunities to share about and reflect upon their experiences during Advanced Internship in Early Childhood Special Education. Students engage in and discuss what it means to participate in an ongoing process of professional development as teachers and learners and critically reflect upon their practice.
Registration Restrictions: Graduate standing and department approval
Prerequisites: EDSE A607 with a minimum grade of C and EDSE A610Y with a minimum grade of C and (EDSE A611Y with a minimum grade of C or PSY A611Y with a minimum grade of C) and EDSE A622Y with a minimum grade of C and (EDSE A623Y with a minimum grade of C or PSY A623Y with a minimum grade of C) and EDSE A674 with a minimum grade of C.
Corequisites: EDSE A695Y.

EDSE A695E Advanced Internship in Special Education: Elementary **3-6 Credits**
Supervised internship in elementary school settings with children with disabilities.
Special Note: Must apply by specified deadline--see advisor.
Registration Restrictions: Graduate standing and department approval

EDSE A695S Advanced Internship in Special Education: Secondary **3-6 Credits**
Supervised internship in secondary school settings with children with disabilities.
Special Note: Must apply by specified deadline--see advisor.
Registration Restrictions: Graduate standing and department approval

EDSE A695Y Advanced Internship: Early Childhood Special Education **3-6 Credits**
Supervised advanced internship in early intervention and early childhood special education. Allows for application of intervention and assessment strategies in early intervention and early childhood special education settings.
Special Note: This course requires 500 hours of internship, of which a minimum of 200 hours must be in an infant learning setting and a minimum of 200 hours must be in a school district setting. The remaining 100 hours can be applied to either setting.
Registration Restrictions: Graduate standing, admission to the School of Education, and department approval
Prerequisites: EDSE A607 with a minimum grade of C and EDSE A610Y with a minimum grade of C and (EDSE A611Y with a minimum grade of C or PSY A611Y with a minimum grade of C) and EDSE A622Y with a minimum grade of C and (EDSE A623Y with a minimum grade of C or PSY A623Y with a minimum grade of C) and EDSE A624 with a minimum grade of C.
Corequisites: EDSE A692Y.

ED: Teaching & Learning (EDTL)

Courses

EDTL A620 Foundations of Instructional Design and Technology **3 Credits**
Examines foundational principles, theories, and methodologies encountered in the field of learning, instructional design, and technology. Explores the intersection of education, technology, and pedagogy to develop an integrated theoretical and practical foundation that will enable students to design effective learning experiences in diverse educational settings.
Registration Restrictions: Graduate standing

EDTL A621 Message Design in Learning Environments **3 Credits**
Examines theoretical frameworks and skills necessary to evaluate and create visual representations of information. Explores and integrates areas of study, including visual literacy, learning, instructional design, and technology, cognitive psychology, organizational psychology, and information presentation.
Registration Restrictions: Graduate standing

EDTL A622 Applied Learning Media Production **3 Credits**
Explores software, techniques, and applications used in the design, manipulation, and development of multimedia artifacts for instructional purposes. Supports application of message design principles in a multimedia setting through accelerated, hands-on activities.
Registration Restrictions: Graduate standing

EDTL A623 Project Management for Learning Design **3 Credits**
Examines and applies project management skills situated in the dynamic landscape of learning design. Explores the principles and practices of project management, applying them to the planning, organization, and execution of projects in educational and technological contexts.
Registration Restrictions: Graduate standing

EDTL A631 The Adult Learner **3 Credits**
Examines major theories and research about adult learning and its relationship to adult development. Explores approaches and strategies for applying these principles to support adult learning across organizations.
Registration Restrictions: Graduate standing

EDTL A632 Facilitating Adult Learning **3 Credits**
Examines theories, research, and strategies for facilitating adult learning in different settings. Applies knowledge of adult teaching and learning to create facilitative learning environments.
Registration Restrictions: Graduate standing

EDTL A633 Leadership and Self-development in Adult Learning **3 Credits**
Investigates theories and research in leadership and self-development in the field of adult learning. Applies an adult developmental framework to explore and facilitate self-development and leadership capacities.
Registration Restrictions: Graduate standing

EDTL A650 Mindfulness in Education **3 Credits**
Examines mindfulness as an approach to teaching and learning and for professional growth and development. Analyzes and critiques mindfulness from multiple perspectives including theory and research in education, social and emotional learning, adult and professional development, and cognitive science. Applicable to educators in P-12 schools, universities, and other community organizations.

EDTL A651 Curriculum Theory and Design **3 Credits**
Examines curriculum theory and design in education. Analyzes history of and current themes in curriculum studies. Examines and applies curriculum design approaches and models, with particular attention given to culturally responsive and place-based education.
Registration Restrictions: Graduate standing

EDTL A680 Teaching and Learning Capstone Portfolio **1 Credit**
Prepare a capstone portfolio demonstrating attainment of the M.Ed. Teaching and Learning Program Student Learning Outcomes. Portfolio includes an inquiry project, academic and professional artifacts, and self-reflections on learning.
Special Note: May be repeated for a maximum of 3 credits. Students enroll three times, each time for one credit.
Registration Restrictions: Graduate standing and admission to the School of Education and Master of Education in Teaching and Learning
Prerequisites: EDRS A660 with a minimum grade of C.

EDTL A690 Selected Topics in Teaching and Learning **3 Credits**
Examines current issues, themes, strategies and/or trends in teaching and learning.
Special Note: May be repeated for a maximum of 6 credits with change in subtitle.
Registration Restrictions: Graduate standing

EDTL A692 Seminar in Culturally Responsive Education **3 Credits**
Seminar for educators offering in-depth discussion, analysis, and inquiry on culturally responsive education in Alaska and similar contexts. Connects students' experiences as teachers to educational theory and research to support development as culturally responsive educators.
Registration Restrictions: Graduate standing or department approval.

Electrical Engineering (EE)

Courses

EE A203 Fundamentals of Electrical Engineering I **3 Credits**
Introduces DC and AC circuit analysis techniques including transient analysis, steady state analysis, three phase circuits and ideal amplifiers.
Prerequisites: MATH A253 with a minimum grade of C or concurrent enrollment.

EE A203L Fundamentals of Electrical Engineering I Laboratory **1 Credit**
Introduces laboratory techniques to measure and analyze DC and AC circuits, including transient analysis, steady state analysis, three phase circuits and ideal amplifiers.
Prerequisites: EE A203 with a minimum grade of C or concurrent enrollment.

EE A241 Computer Hardware Concepts **4 Credits**
Analysis and design of electronic devices used as building blocks for construction of simple combinational and sequential digital systems. Presents formats for data storage, number systems and alphanumeric codes, and methods of implementing logical and arithmetic operations within computers. Relates hardware components' capabilities and limitations to design requirements for computer processing, memory and control functions.
Registration Restrictions: Students must register concurrently for lab section.
Crosslisted With: CSCE A241.
Prerequisites: CSCE A201 with a minimum grade of C or CSE A205 with a minimum grade of C.
Corequisites: EE A241L.

EE A261 MATLAB for Electrical Engineers **3 Credits**
Introduces programming skills and MATLAB to solve problems in various electrical engineering focus areas, including circuit analysis, signal analysis and communication.
Prerequisites: CSE A205 with a minimum grade of C and (MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C).

EE A306 Dynamics of Systems **3 Credits**
Modeling of mechanical, electrical, fluid and thermal elements and systems. Study of free and forced response by the Laplace transform, transfer function and state space models. Time domain and frequency domain responses. Coupled systems, system analogy, sensing and actuation principles.
Registration Restrictions: Admission to the Bachelor of Science in Mechanical Engineering
Crosslisted With: ME A306
Prerequisites: EE A203 with a minimum grade of C or concurrent enrollment and ES A210 with a minimum grade of C and MATH A302 with a minimum grade of C.

EE A307 Introduction to Power Systems **3 Credits**
An analysis of electric power systems, including topologies, ideal power transformers, balanced three-phase systems, symmetrical components, transmission line parameter calculation and power flow.
Prerequisites: EE A353 with a minimum grade of C.

EE A308 Instrumentation and Measurement **3 Credits**
Principles of measurement, instrumentation, Laplace transform, Fourier series, transfer function, steady-state response, calibration, and errors. Signal filtering and amplification, data acquisition, recording, and processing. Methods and devices for measuring strain, force, torque, displacement, velocity, acceleration, pressure, fluid flow properties, and temperature.
Registration Restrictions: Admission to the Bachelor of Science in Electrical Engineering or the Bachelor of Science in Mechanical Engineering
Crosslisted With: ME A308.
Prerequisites: MATH A302 with a minimum grade of C and (EE A306 with a minimum grade of C or ME A306 with a minimum grade of C or EE A353 with a minimum grade of C).

EE A314 Electromagnetics **3 Credits**
Electromagnetic theory and applications. Static electric fields in free space and material media; steady current systems and associated magnetic effects. Includes electrostatics, magnetostatics, Maxwell's equations, electromagnetic wave propagation and transmission lines. Application of Maxwell's equations to engineering systems.
Crosslisted With: PHYS A314.
Prerequisites: PHYS A212 with a minimum grade of C and PHYS A212L with a minimum grade of C and MATH A302 with a minimum grade of C.

EE A324 Electromagnetics II **3 Credits**
Use of Maxwell's equations in analysis of plane wave propagation, wave reflection, radiation and antennas, waveguides, cavity resonators, transmission lines, and radio propagation.
Crosslisted With: PHYS A324.
Prerequisites: EE A314 with a minimum grade of C or PHYS A314 with a minimum grade of C.

EE A324L Electromagnetics Laboratory II **1 Credit**
Laboratory experiments using Maxwell's equations in analysis of plane wave propagation, wave reflection, radiation and antennas, waveguides, cavity resonators, transmission lines, and radio propagation.
Corequisites: EE A324.

EE A333 Electronic Devices **3 Credits**
Introduces the properties of semiconductors and the analysis of electronics and electrical devices including diodes, field effect transistors (FETs) and bipolar junction transistors (BJTs). Covers large signal and small signal analysis techniques and common electrical circuit topologies.
Prerequisites: EE A353 with a minimum grade of C or concurrent enrollment.
Corequisites: EE A333L.

EE A333L Electronic Devices Laboratory **1 Credit**
Introduces laboratory practices for design of semiconductors and analysis of electronics and electrical devices including diodes, field effect transistors (FETs) and bipolar junction transistors (BJTs). Covers large signal and small signal analysis techniques and common electrical circuit topologies.
Corequisites: EE A333.

EE A353 Circuit Theory **3 Credits**
Analysis of transfer functions, passive and active filters, Laplace transforms and applications. Introduction to Fourier series and transforms and two port networks.
Prerequisites: EE A203 with a minimum grade of C and MATH A302 with a minimum grade of C or concurrent enrollment.

EE A353L Circuit Theory Lab **1 Credit**
Analysis of circuit behavior for passive and active filters. Application of Laplace and Fourier techniques to circuit characterization. This course serves as a laboratory component to EE A353.
Corequisites: EE A353.

EE A354 Engineering Signal Analysis **3 Credits**
An introduction to signal analysis using the Fourier Series and Fourier Transform, for both continuous (analog) and discrete (digital) signals.
Prerequisites: EE A353 with a minimum grade of C and MATH A302 with a minimum grade of C.

EE A407 Power Distribution **3 Credits**
Analysis of electrical power distribution and control systems, power flow control, symmetrical faults, power interruption, voltage variations, distributed generation, and economic dispatch with computer-aided analysis.
Prerequisites: EE A353 with a minimum grade of D.

EE A415 Energy Data Analytics **3 Credits**
Covers analysis and principles of energy system data. Discusses major classes of renewable energy data as well as tools and techniques used for energy data analytics. Major focuses are on data sources from the electricity grid, heat systems, and gas networks. Discussions of economic and environmental social policy are integral components of the course. Includes application of data dimensionality reduction to energy data.
Special Note: Not available for credit to students who have completed EE A615.
May Be Stacked With: EE A615
Prerequisites: EE A307 with a minimum grade of C.

EE A417 Green Electrical Energy Systems **3 Credits**
Presents major renewable energy sources and methods used to assess, harness and operate them. Discusses the application of power electronics, control and the use of demand-side management, and the effects of market forces on renewable energy and power systems. Major focuses are on power electronics and grid integration of renewable energy systems. Discussions of economic and environmental social policy are integral components of the course.
May Be Stacked With: EE A617
Prerequisites: EE A353 with a minimum grade of C.

EE A427 Fundamentals of Smart Grids **3 Credits**
Introduces the fundamentals of design, analysis and development of smart grids. Covers elements of control, computing, communication, automation and monitoring techniques needed to ensure smart grid operation. Emphasizes design of smart grids to ensure adaptability as well as interoperability with renewable energy, distributed generation and smart loads.
May Be Stacked With: EE A627
Prerequisites: EE A307 with a minimum grade of C.

EE A437 Electrical Machines **3 Credits**
Covers the analysis and principles of electromechanical systems. Discusses major classes of electric machines, interactions in electromechanics, and tools and techniques used for operation and control.
May Be Stacked With: EE A637
Prerequisites: EE A307 with a minimum grade of C.

EE A438 Design of Electrical Engineering Systems **3 Credits**
Capstone course in which electrical engineering students design an electrical engineering component or system as a team. Covers the entire electrical engineering process from an initial design specification to implementation and testing. Students apply knowledge and skills learned in their undergraduate curriculum.
Registration Restrictions: Senior standing, admission to the College of Engineering, admission to the Bachelor of Science in Electrical Engineering, completion of GER Tier 1 (basic college-level skills) courses or instructor approval
Prerequisites: EE A354 with a minimum grade of C.
Attributes: UAA Integrative Capstone GER.

EE A441 Integrated Circuit Design **3 Credits**
Develops the design and fabrication of integrated circuits (ICs) used in computer electronics. Describes the material properties, methods of charge transport, energy exchanges, fundamentals of device fabrication, and fabrication process capabilities and limits. Electrical characteristics, timing considerations, heat and power considerations, and reliability of IC devices.
Prerequisites: CHEM A105 with a minimum grade of D and EE A353 with a minimum grade of D.

EE A447 Power Electronics **3 Credits**
Applies electronic circuits to energy conversion. Discusses modeling, design, analysis, and control of DC-DC converters, AC-DC rectifiers, DC-AC inverters, AC-AC converters, and switch-mode power supplies. Includes power electronics applications in motor drives, uninterrupted power supplies, and power systems.
Prerequisites: EE A307 with a minimum grade of C and EE A333 with a minimum grade of C.

EE A451 Digital Signal Processing **3 Credits**
Develops properties and methods of analysis of discrete-time signals, and the techniques used in creating and processing those signals. Topics include discrete-time linear systems, Z-transforms, the Discrete Fourier Transform and Fast Fourier Transform algorithms, digital filter design, system performance analysis and problem-solving. Methods and effects of signal processing are analyzed and evaluated.
Prerequisites: EE A354 with a minimum grade of C or (STAT A307 with a minimum grade of C and MATH A261 with a minimum grade of C).

EE A458 Antenna Theory **3 Credits**
Analysis of dipole, loop, aperture, reflector, and other antennas; array theory, radiation resistance, directivity, and input impedance of antennae.
Prerequisites: EE A324 with a minimum grade of C or PHYS A324 with a minimum grade of C.

EE A462 Communication Systems **3 Credits**
Develops the theory behind the design and operation of electronic communication systems. Includes the mathematical representation of signal and system components and their interaction. Covers power spectra, modulation techniques, frequency response of media and components, detection and recovery of information, and the effects of noise.
Prerequisites: EE A354 with a minimum grade of C.

EE A465 Telecommunications **3 Credits**
Covers concepts in data transmission, guided and wireless transmission, signal encoding, digital data, multiplexing, and circuit and packet switching. Analyze data communications, networking, protocols and standards.
Prerequisites: EE A354 with a minimum grade of C.

EE A467 Real-Time Embedded Systems **3 Credits**
Covers the design and programming of microcontroller-based embedded systems, emphasizing low-level hardware interaction using standard C and assembly language. Students will learn to develop real-time embedded applications and integrate hardware and software efficiently. Details strategies for power-efficient computing in embedded environments.
Crosslisted With: CSCE A467
Prerequisites: CSCE A248 with a minimum grade of C.

EE A471 Automatic Control **3 Credits**
Linear system representation by transfer functions, signal flow graphics and state equations. Feedback, time and frequency response of linear systems. Stability analysis by Routh-Hurwitz criterion and frequency domain methods. Specifications of higher order linear systems. System design and compensation.
Crosslisted With: ME A471.
Prerequisites: (EE A306 with a minimum grade of C or ME A306 with a minimum grade of C or EE A353 with a minimum grade of C) and ES A210 with a minimum grade of C and MATH A302 with a minimum grade of C.

EE A472 Advanced Linear Systems **3 Credits**
Presents a state space linear algebra approach to multiple input and multiple output systems. Explores concepts of controllability and observability that motivate design techniques for optimal open loop and closed loop systems. Presents analysis and design of optimal feedback control systems and design of observers and estimators.
Special Note: Not available for credit to students who have completed ME A672.
May Be Stacked With: ME A672
Prerequisites: EE A471 with a minimum grade of C or ME A471 with a minimum grade of C.

EE A475 Communication Networks **3 Credits**
Provides an in-depth study of telecommunications networks, focusing on the design, implementation, and operation of local area networks (LANs), wireless LANs, wide area networks (WANs), and cellular wireless networks. Covers key topics on Internet Protocol (IP), transport protocols (TCP/UDP), routing, and internetworking. Emphasizes real-world telecom applications and performance analysis of fiber-optic, microwave, cellular, and satellite systems.
May Be Stacked With: EE A675
Prerequisites: EE A354 with a minimum grade of C.

EE A495 Electrical Engineering Internship **3 Credits**
Application of electrical engineering in a professional work setting. The student will undertake the design, analysis and documentation of an electrical engineering problem under the supervision of a qualified professional who has agreed in advance to undertake this role.
Special Note: This course cannot be substituted for EE A438.
Registration Restrictions: Instructor approval required.
Prerequisites: EE A354 with a minimum grade of C or EE A307 with a minimum grade of C.

EE A615 Energy Data Analytics **3 Credits**
Analyzes the principles of energy system data. Discusses major classes of renewable energy data as well as tools and techniques used for energy data analytics. Focuses on data sources from the electricity grid, heat systems, and gas networks. Discusses economic and environmental social policy as integral components of the course. Applies data dimensionality reduction to real-world energy data.
Special Note: Not available for credit to students who have completed EE A415.
Registration Restrictions: Graduate standing
May Be Stacked With: EE A415

EE A617 Advanced Green Electrical Energy Systems **3 Credits**
Presents major renewable energy sources and methods used to assess, harness and operate them. Discusses the application of power electronics, control and the use of demand-side management, and the effects of market forces on renewable energy and power systems. Major focus is on power electronics and grid integration of renewable energy systems. Discussions of economic and environmental social policy are integral components of the course.
Special Note: Not available for credit to students who have completed EE A417.
Registration Restrictions: Graduate Standing
May Be Stacked With: EE A417

EE A627 Smart Grids **3 Credits**
Introduces the fundamentals of design, analysis and development of smart grids. Covers elements of control, computing, communication, automation and monitoring techniques needed to ensure smart grid operation. Emphasizes design of smart grids to ensure adaptability as well as interoperability with renewable energy, distributed generation and smart loads. Focuses on conducting a comprehensive literature review and simulating a project at the intersection of communication network and energy grid real-time operation.
Special Note: Not available for credit to students who have completed EE A427.
Registration Restrictions: Graduate standing
May Be Stacked With: EE A427

EE A637 Electrical Machines **3 Credits**
Analysis and principles of electromechanical systems. Discusses major classes of electric machines, interactions in electromechanics, and tools and techniques used for operation and control.
Special Note: Not available for credit to students who have completed EE A437.
Registration Restrictions: Graduate standing
May Be Stacked With: EE A437

EE A675 Communication Networks **3 Credits**
Provides an in-depth study of telecommunications networks, focusing on the design, implementation, and operation of local area networks (LANs), wireless LANs, wide area networks (WANs), and cellular wireless networks. Covers key topics on Internet Protocol (IP), transport protocols (TCP/UDP), routing, and internetworking. Emphasizes real-world telecom applications and performance analysis of fiber-optic, microwave, cellular, and satellite systems.
Registration Restrictions: Graduate standing
May Be Stacked With: EE A475

EE A690 Selected Topics in Data Science and Engineering **1-3 Credits**
Examines advanced topics in data science and engineering.
Special Note: May be repeated for a maximum of 6 credits with a change of subtitle.
Registration Restrictions: Graduate standing or instructor approval
Crosslisted With: GIS A690

EE A695 Professional Internship **3 Credits**
Applies data science and/or data engineering skills in a professional work setting. Arranges assignments and projects with cooperating organizations and agencies.
Registration Restrictions: Graduate standing and instructor approval
Crosslisted With: CSCE A695 and GIS A695

EE A698 Individual Research **3 Credits**
Engages students in independent research projects under the supervision of a faculty member. Results in a research paper prepared to publication standards of a refereed journal or conference.
Special Note: May be repeated once for credit.
Registration Restrictions: Graduate standing and instructor approval

EE A698A Project **3 Credits**
Arranges an individualized project in an area of electrical engineering as related to the profession. The graduate committee must approve the project topic.
Special Note: May be repeated once for credit.
Registration Restrictions: Graduate standing and instructor approval

EE A699 Thesis **1-6 Credits**
Engages student in individual research of an advanced electrical engineering problem resulting in a thesis.
Special Note: May be repeated for a maximum of 6 credits.
Registration Restrictions: Graduate standing and instructor approval

Electronics Technology (ET)

Courses

ET A101 Basic Electronics: DC Circuits **3 Credits**
Presents principles of electricity in direct current (DC) circuits, including voltage, current, resistance, and power. Properties of series and parallel circuits. Covers circuit analysis theorems and techniques.
Prerequisites: MATH A105 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A211 with a minimum grade of C or MATH A212 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C.
Corequisites: ET A101L.

ET A101L Basic Electronics: DC Circuits Lab **1 Credit**
Demonstrate understanding of the principles of electricity in direct current (DC) circuits, including voltage, current, resistance, and power. Covers series and parallel circuits and circuit analysis theorems and techniques.
Prerequisites: MATH A105 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A211 with a minimum grade of C or MATH A212 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C.
Corequisites: ET A101.

ET A102 Basic Electronics: AC Circuits **3 Credits**
Presents principles of alternating current (AC) circuits, including vectors, phase relationships, inductive and capacitive reactance and impedance. Covers AC circuit analysis, series and parallel resonant circuits, transformers, and network analysis.
Prerequisites: ET A101 with a minimum grade of C and ET A166 with a minimum grade of C or concurrent enrollment and (MATH A105 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A211 with a minimum grade of C or MATH A212 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C).
Corequisites: ET A102L.

ET A102L Basic Electronics: AC Circuits Lab **1 Credit**
Demonstrates understanding of the principles of alternating current (AC) circuits, including vectors, phase relationships, inductive and capacitive reactance and impedance. Covers AC circuit analysis, series and parallel resonant circuits, transformers, and network analysis.
Prerequisites: ET A101 with a minimum grade of C and ET A166 with a minimum grade of C and (MATH A105 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A211 with a minimum grade of C or MATH A212 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C).
Corequisites: ET A102.

ET A126 Digital Electronics **3 Credits**
Presents principles of digital logic, including number systems, logic gates, logic functions, logic design, and analysis methods.
Prerequisites: MATH A105 with a minimum grade of C or concurrent enrollment or MATH A121 with a minimum grade of C or concurrent enrollment or MATH A151 with a minimum grade of C or concurrent enrollment or MATH A152 with a minimum grade of C or concurrent enrollment or MATH A155 with a minimum grade of C or concurrent enrollment or MATH A211 with a minimum grade of C or concurrent enrollment or MATH A212 with a minimum grade of C or concurrent enrollment or MATH A221 with a minimum grade of C or concurrent enrollment or MATH A251 with a minimum grade of C or concurrent enrollment or MATH A251F with a minimum grade of C or concurrent enrollment or MATH A252 with a minimum grade of C or concurrent enrollment or MATH A252F with a minimum grade of C or concurrent enrollment or MATH A253 with a minimum grade of C or concurrent enrollment.
Corequisites: ET A126L.

ET A126L Digital Electronics Lab **1 Credit**
Demonstrates principles of digital logic, including number systems, logic gates, logic functions, logic design, and analysis methods.
Prerequisites: MATH A105 with a minimum grade of C or concurrent enrollment or MATH A121 with a minimum grade of C or concurrent enrollment or MATH A151 with a minimum grade of C or concurrent enrollment or MATH A152 with a minimum grade of C or concurrent enrollment or MATH A155 with a minimum grade of C or concurrent enrollment or MATH A211 with a minimum grade of C or concurrent enrollment or MATH A212 with a minimum grade of C or concurrent enrollment or MATH A221 with a minimum grade of C or concurrent enrollment or MATH A251 with a minimum grade of C or concurrent enrollment or MATH A251F with a minimum grade of C or concurrent enrollment or MATH A252 with a minimum grade of C or concurrent enrollment or MATH A252F with a minimum grade of C or concurrent enrollment or MATH A253 with a minimum grade of C or concurrent enrollment.
Corequisites: ET A126.

ET A151 Basic Electricity for the Trades **4 Credits**
Introduces the principles and concepts of electricity as it applies to the non-electronics major. Covers basic electricity and electrical theory, reading of blue prints and electrical plans, analysis of building electrical systems, and installation of electrical devices used in the industry: switches, receptacles, and appliances with 120-volt through 480-volt systems.
Prerequisites: MATH A055 with a minimum grade of D or MATH A105 with a minimum grade of D or MATH A121 with a minimum grade of D or MATH A151 with a minimum grade of D or MATH A152 with a minimum grade of D or MATH A155 with a minimum grade of D or MATH A211 with a minimum grade of D or MATH A212 with a minimum grade of D or MATH A221 with a minimum grade of D or MATH A251 with a minimum grade of D or MATH A251F with a minimum grade of D or MATH A252 with a minimum grade of D or MATH A252F with a minimum grade of D or MATH A253 with a minimum grade of D.

ET A166 Technical Calculations for AC Circuit Applications **2 Credits**
Presents applied calculations for students in AC electronics. Covers basic arithmetic, unit conversions, solving algebraic equations, working with logarithmic and exponential functions, applied basic concepts of trigonometry, and AC electronics applications.
Prerequisites: MATH A105 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A211 with a minimum grade of C or MATH A212 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C.

ET A175 Technical Introduction to Computing Systems **3 Credits**
Covers principles of digital computing systems, including number systems, data representation, the central processing unit, computer system organization and programming in both assembly and the high-level languages.
Prerequisites: MATH A105 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A211 with a minimum grade of C or MATH A212 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C.

ET A240 Computer Systems Interfacing **3 Credits**
Introduces concepts, programming techniques and device connections for computer sensing and control systems. Covers program design for device interfacing, common interfacing circuits, analog to digital conversion, digital to analog conversion, and serial communications.
Prerequisites: ET A126 with a minimum grade of C and ET A175 with a minimum grade of C and (MATH A105 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A211 with a minimum grade of C or MATH A212 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C).

ET A241 Digital Control Systems **3 Credits**
Introduces concepts, architecture and development of digital supervisory control and data acquisition (SCADA) systems. Includes systems organization, industrial data communications, data point addressing and recording, programmable logic controller (PLC) connections and programming, and human-machine interface (HMI) design and development.
Prerequisites: ET A240 with a minimum grade of C and (MATH A105 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A211 with a minimum grade of C or MATH A212 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C).

ET A243 Programmable Logic Controllers **3 Credits**
Introduces the programmable logic controller (PLC) for industrial control applications. Includes PLC system design, hardware selection, configuration, input/output connections, programming, and troubleshooting.
Prerequisites: ET A126 with a minimum grade of C and ET A241 with a minimum grade of C and (MATH A105 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A211 with a minimum grade of C or MATH A212 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C or ALEKS Overall Test 1 with a score of 055 or ALEKS Overall Test 2 with a score of 055 or ALEKS Overall Test 3 with a score of 055 or ALEKS Overall Test 4 with a score of 055 or ALEKS Overall Test 5 with a score of 055).

ET A246 Electronic Industrial Instrumentation **3 Credits**
Explains the methods of analog signal conditioning and transmission. Describes common sensors for level, pressure, temperature and chemical analysis. Includes instrument connections, wiring, shielding, voltage loops, current loops and digital controllers.
Prerequisites: ET A102 with a minimum grade of C and (MATH A105 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A211 with a minimum grade of C or MATH A212 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C).

ET A248 Digital Automation Systems **2 Credits**
Introduces digital automation systems for industrial control applications. Incorporates lecture and practical application using Emerson Delta V or similar automation simulator workstations.
Registration Restrictions: Admission to the Associate of Applied Science in Industrial Process Instrumentation
Prerequisites: ET A243 with a minimum grade of C or concurrent enrollment.

Emergency Medical Technology (EMT)

Courses

EMT A100 Wilderness First Aid **1 Credit**
Introduces personal safety and response to trauma and medical incidents in remote locations.
Special Note: Students who complete this course may meet the requirements for the American Red Cross Wilderness and Remote First Aid certification.
Registration Restrictions: Valid American Red Cross or American Heart Association Cardio-Pulmonary Resuscitation (CPR) card

EMT A110 Emergency Trauma Technician **3 Credits**
Alaska State certified basic emergency medical course beyond advanced first aid. Emphasizes prevention, assessment, and care of injury and illness commonly encountered in both urban and rural settings.
Registration Restrictions: Must provide evidence of cardiopulmonary resuscitation (CPR) training at the Health Care Provider or Basic Life Support level prior to course conclusion.

EMT A130 Emergency Medical Technician I **8 Credits**
Presents skills for proficiency in victim assessment, recognition, and treatment of medical emergencies and other basic life support procedures. May include practicum experience in hospitals, emergency rooms or other sites. Provides the necessary training to become state or nationally registered as an EMT, which is optional.
Special Note: Students must have the strength to be able to move victims, sufficient vision to assess condition of victims and dexterity to perform the skills application procedures.
Registration Restrictions: Provide evidence of CPR training at the professional provider level. A valid CPR credential includes CPR cards, course rosters or a letter from the CPR instructor attesting to the applicant's successful completion of a CPR program and indicating the course included adult, child and infant CPR and AED utilization. Restriction may be waived with instructor approval.
Prerequisites: WRTG A090 with a minimum grade of C or WRTG A110 with a minimum grade of D or concurrent enrollment or WRTG A111 with a minimum grade of C or concurrent enrollment or WRTG A1W with a minimum grade of C or (Accuplacer-Reading Comp with a score of 065 and Accuplacer-Sentence Skills with a score of 075) or Accuplacer-Sum AASS + AARC with a score of 140 or (Accuplacer NG Writing with a score of 250 and Accuplacer NG Reading with a score of 250) or Accuplacer NG AAWR + AARE with a score of 500 or Enhanced ACT English with a score of 18 or EVIDENCE-BASED READ/WRIT SCORE with a score of 450.

EMT A140 Community Emergency Response Bridge **2 Credits**
Introduces basic training in the incident command system, including team-oriented response to basic disasters, fire, emergency medical, and search and rescue.
Special Note: Students who complete this course along with the course prerequisites may meet the requirements for a Community Emergency Response Team (CERT) Level I training in accordance with the Federal Emergency Management Agency (FEMA).
Prerequisites: EMT A100 with a minimum grade of C and KIN A112 with a minimum grade of C.

EMT A230 Emergency Medical Technician II **3 Credits**
Provides the EMT I with added skills of advanced airway, specialized tourniquets, and intravenous treatment.
Special Note: Students desiring Alaska certification must pass, within one year after completing the education program, the written and practical examination for Emergency Medical Technician II administered by Community Health and Emergency Medical Services (CHEMS). In order to obtain a State of Alaska EMT II certification, the student must obtain a CHEMS-approved physician sponsor.
Registration Restrictions: Must be certified as a State of Alaska EMT I or Nationally Registered EMT-Basic (comity is required). Current health care provider CPR card; documentation of 10 patient contacts since becoming a certified EMT and a DHSS-approved sponsoring physician.
Prerequisites: EMT A130 with a minimum grade of D.

EMT A231 Emergency Medical Technician III **3 Credits**
Emphasizes knowledge and skills necessary to apply electrodes and monitor cardiac activity, defibrillate life-threatening arrhythmias, and administer specific pharmacological agents.
Special Note: Students desiring Alaska certification must pass, within one year after completing the education program, the written and practical examination for Emergency Medical Technician III administered by the Community Health and Emergency Medical Services (CHEMS).
Registration Restrictions: Currently certified in Alaska as an EMT II, documented 10 patient contacts and 10 intravenous sticks.
Prerequisites: EMT A130 with a minimum grade of D and EMT A230 with a minimum grade of D.

EMT A235 Advanced Emergency Medical Technician **10 Credits**
Provides training for Advanced Emergency Medical Training (AEMT) using invasive procedures such as IV therapy, the use of advanced airway devices, medication administration and cardiac monitoring. Individuals who complete the course are eligible to take the National Registry AEMT exam.
Special Note: Students must have the strength to be able to move victims, sufficient vision to assess condition of victims and dexterity to perform the skills application procedures.
Registration Restrictions: Provide evidence of state or national certification, at a minimum, as an Emergency Medical Technician I. Provide evidence of CPR training at the professional provider level (BLS). Restriction may be waived with instructor approval.
Prerequisites: EMT A130 with a minimum grade of C.

Engineering (ENGR)

Courses

ENGR A105A Engineering Graphics **1 Credit**
Introduces engineering graphics without the use of software. Focuses on hand drawing skills with an emphasis on orthographic projections, isometric views, auxiliary views and sectional views.

ENGR A105B Computer-Aided Graphics **1 Credit**
Focuses on the use of computer-aided design (CAD) software as a tool for creating engineering graphics.
Prerequisites: ENGR A105A with a minimum grade of D.

ENGR A151 Introduction to Engineering **1 Credit**
Provides an introduction to engineering both as a profession and as a field of study. Introduces students to the roles, responsibilities and capabilities of civil, computer systems, electrical, and mechanical engineers.

ENGR A495 Engineering Internship **1 Credit**
Professional work experience designed to provide students with the opportunity to investigate the practical applications of engineering design within engineering organizations. Assignments and projects arranged with cooperating organizations and agencies.
Registration Restrictions: Instructor permission.

Engineering Science (ES)

Courses

ES A106 Engineering Graphics **2 Credits**
Develops visualization skills, orthographic projections, creation of sectional views, auxiliary views, isometric pictorials, and adding necessary details such as dimensions and tolerances. Develops hand drawing skills and the use of computer-aided design (CAD) software as tools for creating engineering graphics.
Prerequisites: (MATH A151 with a minimum grade of C and MATH A152 with a minimum grade of C) or MATH A155 with a minimum grade of C or MATH A211 with a minimum grade of C or MATH A212 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C or ALEKS Overall Test 1 with a score of 78 or ALEKS Overall Test 2 with a score of 78 or ALEKS Overall Test 3 with a score of 78 or ALEKS Overall Test 4 with a score of 78 or ALEKS Overall Test 5 with a score of 78.

ES A209 Statics **3 Credits**
Introduces concepts of engineering mechanics with applications using calculus, graphical, scalar, and vector methods. Develops representation of forces and force systems in two and three dimensions for analysis of equilibrium of particles and rigid bodies with applications to structures such as trusses, frames, and machines. Introduces computation of internal forces and moments, and determination of centroids, centers of gravity, and moments of inertia. Includes analyses of static equilibrium problems with Coulomb friction, and introduces the principle of virtual work.
Prerequisites: (MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C) and PHYS A211 with a minimum grade of C.

ES A210 Dynamics **3 Credits**
Introduces kinematics and kinetics of particles and rigid body motion. Applies principles of work and energy, impulse and momentum to particles and rigid body motion. Applies concept of vector algebra wherever required.
Prerequisites: ES A209 with a minimum grade of C.

ES A261 Introduction to Engineering Computation **3 Credits**
Introduces computation methods and tools for engineering applications. Introduction to computer programming with MATLAB.
Prerequisites: MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C.

ES A302 Engineering Data Analysis **3 Credits**
Introduces concepts of probability and statistics needed to solve various engineering problems.
Prerequisites: (MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C) and (ES A261 with a minimum grade of C or EE A261 with a minimum grade of C).

ES A331 Mechanics of Materials **3 Credits**
Introduces the concepts of stress and strain. Relate stresses and strains by modeling material behavior. Analyze and design axially loaded members, torsional shafts, transversely loaded beams, thin-walled pressure vessels, and axially loaded columns, relating loads and displacements with stresses and strains. Analyze a general state of stress and strain, including the special cases of plane stress and plane strain.
Prerequisites: ES A209 with a minimum grade of C and MATH A302 with a minimum grade of C or concurrent enrollment.

ES A341 Fluid Mechanics **3 Credits**
Introduces physical properties and behavior of fluids. Topics include hydrostatics and dynamics of liquids and gases, dimensional analysis, fluid forces on immersed bodies, pipe flow, fluid machinery, and open channel flow.
Prerequisites: ES A209 with a minimum grade of C and (ES A302 with a minimum grade of C or concurrent enrollment or STAT A307 with a minimum grade of C or concurrent enrollment) and MATH A302 with a minimum grade of C or concurrent enrollment.

ES A341L Fluid Mechanics Laboratory **1 Credit**
Provides supplemental explanation and practical exercises applying physical properties and behavior of fluids, including hydrostatics, fluid forces, pipe flow, fluid machinery, and open channel flow.
Prerequisites: ES A341 with a minimum grade of C or concurrent enrollment.

ES A346 Introduction to Thermodynamics **3 Credits**
Covers thermodynamic systems, properties, processes and cycles. Introduces fundamental principles of thermodynamics (first and second laws) and elementary applications.
Prerequisites: (MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C) and PHYS A211 with a minimum grade of C.

ES A603 Fundamentals of Data Science and Engineering **3 Credits**
Covers concepts and practical skills in the field of data science. Emphasizes the essential knowledge and hands-on expertise required to work with data, including data collection, cleaning, visualization, and analysis. Cultivates problem-solving abilities in the context of data-centric applications.
Registration Restrictions: Graduate standing or instructor approval

ES A666 Assessment and Communication of Engineering Research **1 Credit**
Discusses the structure, methods and assessment tools needed to communicate basic and applied research at the graduate level in engineering fields. The course is designed to guide the student through the process of establishing, organizing, writing, and orally expressing graduate level research conducive to a publication, thesis or proposal.
Special Note: Can be repeated once to further develop and enhance research and communication skills.
Registration Restrictions: Graduate standing and admission to the College of Engineering

Engineering & Science Management (ESM)

Courses

ESM A450 Economic Analysis and Operations **3 Credits**
Introduces fundamentals of engineering economy, project scheduling, estimating, legal principles, professional ethics and human relations. Prepares students to successfully complete engineering economy questions on the Fundamentals of Engineering licensing exam.
Special Note: Not available for credit toward the Master of Science in engineering management or science management.
Prerequisites: (MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C) and (WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C or WRTG A2W with a minimum grade of C).

English as an Additional Language (EAL)

Courses

EAL A100 Intermediate Reading and Writing **3 Credits**
Emphasizes increasing English language reading and writing proficiency for academic and professional settings. Focuses on development of reading comprehension and writing short texts. Presents current research on second language acquisition of reading and writing and introduces resources for English proficiency development.
Special Note: Intermediate-level English as an additional language proficiency recommended.
May Be Stacked With: EAL A200

EAL A101 Intermediate Listening and Speaking **3 Credits**
Emphasizes increasing English language proficiency for academic and professional settings. Presents listening and speaking skills for participation in seminars, group discussions, and presentations using formal and academic English. Presents current research on second language acquisition of speaking and listening and introduces resources for English proficiency development.
Special Note: Intermediate-level English as an additional language proficiency recommended.
May Be Stacked With: EAL A201

EAL A102 Intermediate Vocabulary and Reading Comprehension **3 Credits**
Emphasizes increasing vocabulary and comprehension for academic and professional settings. Presents current research on second language acquisition of vocabulary for comprehension of English texts and introduces resources for English proficiency development.
Special Note: Intermediate-level English as an additional language proficiency recommended.
May Be Stacked With: EAL A202

EAL A103 Intermediate Grammar and Written Expression **3 Credits**
Emphasizes increasing proficiency in English grammar in written expression for academic and professional settings. Includes focused practice in the most difficult aspects of English grammar to acquire. Presents current research on second language acquisition of grammar and writing and introduces resources for English proficiency development.
Special Note: Intermediate-level English as an additional language proficiency recommended.
May Be Stacked With: EAL A203

EAL A200 Advanced Reading and Writing **3 Credits**
Emphasizes increasing English language reading and writing proficiency for academic and professional settings. Focuses on development of critical reading comprehension and writing longer texts. Presents current research on second language acquisition of reading and writing and evaluates further resources for English proficiency development.
Special Note: Advanced-level English as an additional language proficiency recommended.
May Be Stacked With: EAL A100

EAL A201 Advanced Listening and Speaking **3 Credits**
Emphasizes increasing English language proficiency for academic and professional settings. Focuses on greater participation in seminar, discussion, debate and presentation skills using formal and academic English. Presents current research on second language acquisition of speaking and listening and evaluates further resources for English proficiency development.
Special Note: Advanced-level English as an additional language proficiency recommended.
May Be Stacked With: EAL A101

EAL A202 Advanced Vocabulary and Reading Comprehension **3 Credits**
Emphasizes increasing vocabulary for academic and professional settings. Presents current research on second language acquisition of vocabulary for comprehension of English texts and evaluates further resources for English proficiency development.
Special Note: Advanced-level English as an additional language proficiency recommended.
May Be Stacked With: EAL A102

EAL A203 Advanced Grammar and Written Expression **3 Credits**
Emphasizes increasing proficiency in English grammar through written expression for academic and professional settings. Includes focused practice in the most difficult aspects of English grammar to acquire. Presents current research on second language acquisition of grammar and writing and evaluates further resources for English proficiency development.
Special Note: Advanced-level English as an additional language proficiency recommended.
May Be Stacked With: EAL A103

English (ENGL)

Courses

ENGL A120 Reasoning, Thinking, and Discourse **3 Credits**
Emphasizes principles and techniques of critical thinking to explore issues, ideas, artifacts and events before accepting or forming an opinion or conclusion. Focuses on varied methods for analyzing written, visual, digital and oral arguments and the application of these methods in personal, academic and professional settings.
Attributes: UAA Humanities GER.

ENGL A121 Introduction to Literature **3 Credits**
Introduces students to literary genres as a reflection of culture and develops the capacity to analyze and interpret texts through discussions and critical analysis of selected readings.
Attributes: UAA Humanities GER.

ENGL A200 Global Literature and Culture **3 Credits**
Emphasizes world literatures from 2000 BCE through the present and teaches essential vocabulary, the development of critical thinking, and the analysis of global and historical perspectives.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER.

ENGL A203 British Narratives of Power and Global Change **3 Credits**
Teaches essential vocabulary, development of critical thinking, and analysis of literary narratives that shaped the global impact of British culture and empire from the Early Medieval to the present.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER.

ENGL A205 Literary Narratives that Shaped the United States **3 Credits**
Surveys the diverse voices, themes, and periods that have shaped the United States. Explores the foundational works of American letters, from indigenous oral stories to contemporary works, and explores the vibrant mosaic of voices that contribute to the nation's identity.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER.

ENGL A209 Fields and Careers in English Studies **3 Credits**
Introduces the areas of study that comprise English studies at the University of Alaska Anchorage, and provides information on career applications.

ENGL A245 Alaska Native Literatures **3 Credits**
Studies traditional, historical stories and contemporary texts written in English by Alaska Natives.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER, UAA Alaska Native-Themed GER.

ENGL A259 Short Format: Introduction to Creative Writing **1 Credit**
Introduces the creative writing genre in short 1-credit workshops.
Special Note: May be repeated twice for credit with change of subtitle.

ENGL A260 Introduction to Creative Writing **3 Credits**
Introduces creative writing in multiple genres. Reading fiction, nonfiction and poetry; analysis of stylistic features; participation in writing workshop; and production of written exercises and texts.
Special Note: May be repeated once for credit.

ENGL A278 Sharing Science with Diverse Audiences **1-3 Credits**
Builds practical skills in sharing science among diverse audiences using a variety of methods, with an emphasis on nonfiction writing, interpretive techniques, public speaking and facilitating interactive discussion in community fora, and the use of social media. Focuses on the effective communication of clear messages to target audiences using evidence-based strategies about how people learn and are motivated to change environmental attitudes and behaviors. Appropriate methods for sharing traditional ecological knowledge in cross-cultural situations will also be emphasized.
Crosslisted With: JPC A278

ENGL A278L Sharing Science with Diverse Audiences Lab **1-2 Credits**
Builds practical skills in observing and evaluating expert practitioners in the field of science communication. Applies evidence-based strategies to engage diverse audiences. Emphasizes appropriate methods for sharing traditional knowledge in cross-cultural situations.
Crosslisted With: JPC A278L

ENGL A309 Texts of American Cultures and Regions **3 Credits**
Intensive study of the texts of an American culture or region from the beginnings to the present day, with emphasis on major figures within their historical context.
Special Note: May be repeated once for credit with a change in the subtitle.
Prerequisites: WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C.

ENGL A311 Writing in Public Life **3 Credits**
Covers advanced rhetorical problem solving and writing to engage public issues.
Prerequisites: WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C or WRTG A2W with a minimum grade of C.

ENGL A312 Technical Writing and Design **3 Credits**
Introduces advanced study of technical writing principles, practices, and genres. Utilizes extensive practice in designing, revising, and editing print and electronic documents.
Prerequisites: WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C or WRTG A2W with a minimum grade of C.

ENGL A313 Professional Writing **3 Credits**
Instructs writing for a profession, focusing on the various genres and on the technological, cultural, and social aspects of a selected profession. Concentrates on acquiring workplace literacy through analysis and composition of workplace genres, and through analysis of work sites.
Special Note: May include special fees if delivered in a computerized classroom.
Prerequisites: WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C or WRTG A2W with a minimum grade of C.

ENGL A385 Creative Writing Workshop **3 Credits**
Provides creative writing practice at the intermediate level, with intensive critique of student work in fiction, nonfiction, poetry or drama.
Special Note: May be repeated once for credit.
Prerequisites: (WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C or WRTG A2W with a minimum grade of C) and (ENGL A121 with a minimum grade of C or ENGL A200 with a minimum grade of C or ENGL A205 with a minimum grade of C or ENGL A245 with a minimum grade of C or ENGL A260 with a minimum grade of C or ENGL A390B with a minimum grade of C).

ENGL A390A Literature by Period **3 Credits**
Surveys multiple genres of selected literature of a selected time period with special attention paid to historical and cultural contexts. Topics may include but are not limited to: Ancient Literature, Survey of Medieval Literature, Renaissance Literature, Neoclassical Literature, Romantic Literature, Victorian Literature, and Modern and Contemporary Literature.
Special Note: May be repeated once with a change of subtitle.
Prerequisites: ENGL A121 with a minimum grade of C or ENGL A200 with a minimum grade of C.

ENGL A390B Literature by Genre **3 Credits**
Studies the forms and techniques used in a particular literature genre in their historical contexts. Topics may include but are not limited to: poetry, the novel, short story, narrative nonfiction, drama and film interpretation.
Special Note: May be repeated once with a change of subtitle.
Prerequisites: ENGL A121 with a minimum grade of C or ENGL A200 with a minimum grade of C.

ENGL A414 Research Writing **3 Credits**
A guided deep revision of a research paper from a student's home discipline, adapted to a specific scholarly or professional audience. Concentration on audience, method, argument, evidence, and style.
Special Note: Repeatable once with a new research project.
May Be Stacked With: ENGL A614
Prerequisites: WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C or WRTG A2W with a minimum grade of C.

ENGL A429 Major Authors **3 Credits**
Studies a single writer or a small connected movement among writers.
Special Note: May be repeated once for credit with a change of subtitle.
Prerequisites: ENGL A121 with a minimum grade of C or ENGL A200 with a minimum grade of C.

ENGL A433 Literacy, Rhetoric and Social Practice **3 Credits**
Surveys literacy and rhetoric as socially embedded practices within the larger contexts of human activity. Explores rhetoric as the production and interpretation of texts for specific audiences in social contexts. Explores literacy as the construction of meaning in professional, public and private settings, including print-based reading and writing as well as other modes of representation.
Prerequisites: WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C or WRTG A2W with a minimum grade of C.

ENGL A434 Rhetoric and Composition Research Theories and Methodologies **3 Credits**
Study of selected rhetoric and composition research theories and methodologies. Emphasis on principles, purposes, types of evidence, and challenges associated with selected theories and methodologies.
Registration Restrictions: Completion of GER Tier 1 (basic college-level skills) courses and junior standing.
Prerequisites: WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C.

ENGL A435 Critical Theory **3 Credits**
Study of critical theory with an emphasis on historical continuity and change.
Special Note: Does not fulfill degree requirements for the MA in English.
May Be Stacked With: ENGL A635

ENGL A440 Topics in Comparative Literature **3 Credits**
Compares and analyzes selected texts from modern and contemporary international literatures. Includes readings in poetics and literary history.
Special Note: May be repeated once for credit with a change of subtitle.
Prerequisites: ENGL A121 with a minimum grade of C or ENGL A200 with a minimum grade of C.

ENGL A450 Linguistics and English Language Teaching **3 Credits**
Surveys linguistic principles and methods for teachers of English, ESL, and literacy. Addresses English language structure and variation in both spoken and written contexts. Emphasis on developing practical teaching techniques.
Prerequisites: LING A101 with a minimum grade of C or LING A201 with a minimum grade of C.

ENGL A467 The History and Future of Global English **3 Credits**
Investigates the historical development of the English language from linguistic, social, literary, and technological perspectives, including the effects of cross-linguistic processes and histories of language contact. Relates history and variation in English to local and global contexts.
Registration Restrictions: Junior or Senior standing and Completion of GER Tier 1 (basic college-level skills)
Crosslisted With: LING A467
May Be Stacked With: ENGL A667
Prerequisites: (HIST A101 with a minimum grade of C or HIST A102 with a minimum grade of C) and (WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C or WRTG A2W with a minimum grade of C).
Attributes: UAA Integrative Capstone GER.

ENGL A478 Public Science Writing **3 Credits**
Engages in the study and practice of writing for public audiences to communicate scientific knowledge and ways of knowing. Emphasizes public understanding of science, models of science communication, historical case studies, and local and indigenous knowledge.
Registration Restrictions: Completion of Tier 1 GER courses and 4 credits of Natural Science GER, including one lab credit
Prerequisites: WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C or WRTG A2W with a minimum grade of C.
Attributes: UAA Integrative Capstone GER.

ENGL A479 Advanced Studies in Literature **3 Credits**
Examines--in the study of literature--the intricacies of interpretation, the application of theory, and the vital role of context in the creation of meaning.
Registration Restrictions: Senior standing, admission to the Bachelor of Arts in English, and completion of Tier 1 GER courses and 12 credits of upper-division coursework in addition to the prerequisites
Prerequisites: (WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C or WRTG A2W with a minimum grade of C) and ENGL A435 with a minimum grade of C.
Attributes: UAA Integrative Capstone GER.

ENGL A490 Topics in English Studies **3 Credits**
Current topics in English literature, composition, rhetoric or linguistics. Topics will vary.
Special Note: May be repeated for a maximum of 9 credits with change of subtitle. Not available for credit to students who have completed ENGL A690 with the same subtitle.
May Be Stacked With: ENGL A690
Prerequisites: WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C or WRTG A2W with a minimum grade of C.

ENGL A490A Selected Topics in Literature **3 Credits**
Studies topics in literature, which may include but are not limited to: women's literature, comparative literature and Native literatures.
Special Note: May be repeated once with a change of subtitle.
May Be Stacked With: ENGL A690A
Prerequisites: ENGL A200 with a minimum grade of C.

ENGL A490B Language in Use **3 Credits**
Studies principles and practices of language in use. Topics may include but are not limited to: sociolinguistics; rhetoric and composition research theories and methodologies; composition; literacy and the teaching of writing; and professional editing.
Special Note: May be repeated once with a change of subtitle.
Prerequisites: LING A101 with a minimum grade of C or LING A201 with a minimum grade of C.

ENGL A490C Topics in Native Literatures **3 Credits**
Investigates particular topics in Native literatures. Emphasizes primary American Indian and Alaska Native literatures, but may also focus on other Indigenous world literatures.
Special Note: Applies once towards requirement for English majors; may be repeated once for elective credit with a change of subtitle.
Prerequisites: WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C or WRTG A2W with a minimum grade of C.
Attributes: UAA Alaska Native-Themed GER.

ENGL A490D Selected Topics in Style and Social Innovation **3 Credits**
Investigates topics in the analysis of linguistic choices in literary texts.
Special Note: May be repeated once for credit with a change of subtitle.
Crosslisted With: LING A490D
May Be Stacked With: ENGL A690D
Prerequisites: WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C or WRTG A2W with a minimum grade of C.

ENGL A490E Selected Topics in Women's Literature **3 Credits**
Studies topics in literature written by women.
Special Note: May be repeated once with a change of subtitle.
Prerequisites: WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C or WRTG A2W with a minimum grade of C.

ENGL A495 Internship in Professional Writing **1-6 Credits**
Applies advanced knowledge and skills in a professional setting, including writing, editing, designing, publishing, organizational, and/or researching.
Special Note: May be repeated for up to 6 credits with change in setting and/or responsibilities or change in venue.
Registration Restrictions: Instructor approval
Prerequisites: WRTG A211 with a minimum grade of B or WRTG A212 with a minimum grade of B or WRTG A213 with a minimum grade of B or WRTG A214 with a minimum grade of B or WRTG A2W with a minimum grade of B.

ENGL A498 Individual Research **3 Credits**
Individual research or creative project in English Studies arranged with and supervised by a faculty member.
Special Note: May be repeated for a maximum of 6 credits.
Registration Restrictions: Minimum of 9 credits of upper-division English courses and instructor approval

ENGL A499 English Honors Thesis **3 Credits**
Individual in-depth study of a selected topic, with that study resulting in a thesis.
Registration Restrictions: Junior or senior standing, instructor approval and 6 credits of 400-level ENGL courses with a minimum grade of A

ENGL A601 Introduction to Graduate Studies in English **3 Credits**
Advanced study and practice of the skills required for graduate studies in English. Involves analysis of the nature and scope of the discipline, as well as bibliographical and primary research methodologies.
Registration Restrictions: Graduate standing

ENGL A614 Advanced Research Writing **3 Credits**
Guides development or revision of a graduate research project for a selected audience. Concentration on audience, method, argument, evidence, and style.
Special Note: May be repeated once for credit.
Registration Restrictions: Graduate standing
May Be Stacked With: ENGL A414

ENGL A635 Advanced Critical Theory **3 Credits**
Offers advanced study and application of critical theory with an emphasis on historical continuity and change.
Registration Restrictions: Graduate standing
May Be Stacked With: ENGL A435

ENGL A667 The Historical Development of Global English **3 Credits**
Investigates the origins and historical development of the English language in the social contexts that led to its emergence as a global language, with a focus on cross-linguistic historical processes and the role and effects of linguistic variation across time and space.
Registration Restrictions: Graduate standing and instructor approval
May Be Stacked With: ENGL A467 and LING A467

ENGL A690 Advanced Topics in English Studies **3 Credits**
Advanced study of current topics in English literature, composition, rhetoric or linguistics. Topics will vary.
Special Note: May be repeated for a maximum of 9 credits with a change of subtitle. Not available for credit to students who have completed ENGL A490 with the same subtitle.
Registration Restrictions: Graduate standing
May Be Stacked With: ENGL A490

ENGL A690A Advanced Selected Topics in Literature **3 Credits**
Advanced study of topics in literature, which may include but are not limited to: women's literature, comparative literature and Native literatures. Students will have opportunities to design class-based or small-group based activities.
Special Note: May be repeated once with a change of subtitle.
Registration Restrictions: Graduate standing
May Be Stacked With: ENGL A490A

ENGL A690D Selected Topics in Style and Stylistics **3 Credits**
Covers current topics in analysis and implementation of styles and stylistic techniques in literary texts.
Special Note: May be repeated once for credit with a change of subtitle.
Registration Restrictions: Graduate standing
May Be Stacked With: ENGL A490D and LING A490D

ENGL A690E Selected Topics in Interdisciplinary Studies of Texts and Cultures **3 Credits**
Studies at an advanced level the relationships between cultural forces and the production, reception, and interpretation of texts across multiple disciplines. Focuses on both theory and analysis of selected texts.
Special Note: May be repeated once for credit with a change of subtitle.
Registration Restrictions: Graduate standing

ENGL A695 Internship in English **1-6 Credits**
Advanced internship in English-related professional context.
Special Note: May be repeated for up to 6 credits with change in setting and/or responsibilities.
Registration Restrictions: Graduate standing and instructor approval

ENGL A698 Individual Research **1-6 Credits**
Students work individually with faculty mentors to research a topic of the students' choice, generally in preparation for the MA thesis.
Special Note: May be repeated for a maximum of 6 credits.
Registration Restrictions: Graduate standing and faculty permission.

ENGL A699 Thesis **1-6 Credits**
Students work individually with a faculty mentor to research and write the master's thesis, a thoroughly researched and carefully argued article-length work that demonstrates the student's academic achievement and is suitable for academic presentation and publication.
Special Note: May be repeated for a maximum of 6 credits.
Registration Restrictions: Graduate standing, faculty permission, and an approved thesis proposal.

Environmental Studies (ENVI)

Courses

ENVI A211 Environmental Science: Systems and Processes **3 Credits**
Introduces science as a powerful but limited tool for understanding and solving environmental problems. The Earth is discussed as a system with feedbacks, interrelationships, cycles and flows that is undergoing natural and human-induced changes. Topics include basic ecology and biogeochemistry, natural hazards, resources the environment provides to humans, and current environmental issues. Uses Alaskan, Arctic and other regional examples.
Prerequisites: WRTG A111 with a minimum grade of C and (MATH A105 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C).
Attributes: UAA Natural Sciences GER.

ENVI A212 Living on Earth: Introduction to Environmental Studies **3 Credits**
Examines relationships between people and their environment. Considers environmental problems, potential solutions, and the social and ecological impacts of our daily choices as citizens and consumers.
Prerequisites: ENVI A211 with a minimum grade of C.
Attributes: UAA Social Sciences GER.

ENVI A280 Professional Preparation in Environmental Fields I **1 Credit**
A professional preparation course that will guide students in professional preparation through their academic program, begin the development of professional portfolios, introduce internship opportunities, encourage the pursuit of undergraduate research opportunities and assist in planning for graduate school.
May Be Stacked With: ENVI A480
Prerequisites: ENVI A212 with a minimum grade of D or concurrent enrollment.

ENVI A370 Environmental Field Methods **3 Credits**
Introduces methods of data collection and basic analysis for environmental studies. Focuses on the development of quantitative skills and tools used in science professions, with a particular emphasis on field-based data collection techniques. Combines hands-on outdoor field labs with classroom-based analysis and group presentations.
Registration Restrictions: Sophomore, junior, or senior standing and completion of GER Tier 1 (basic college-level skills) courses
Prerequisites: ENVI A211 with a minimum grade of C and (STAT A200 with a minimum grade of C or concurrent enrollment or STAT A253 with a minimum grade of C or concurrent enrollment).

ENVI A395 Environmental Studies Internship **3-9 Credits**
Intensive experience applying environmental studies disciplinary knowledge and skills in a professional setting. Internships will be completed with a community partner (such as an agency or private organization) that engages in environmentally based work.
Special Note: May be repeated for a maximum of 9 credits.
Registration Restrictions: Instructor permission required.
Prerequisites: ENVI A211 with a minimum grade of D.

ENVI A480 Professional Preparation in Environmental Fields II **1 Credit**
A professional preparation course that will require students to report on their internships and undergraduate research, systematically reflect on their degree program, and develop career and academic plans.
Registration Restrictions: Admission to the Bachelor of Arts in Environment and Society or the Bachelor of Science in Environment and Society
May Be Stacked With: ENVI A280
Prerequisites: ENVI A280 with a minimum grade of C and ENVI A395 with a minimum grade of C and GEOG A470 with a minimum grade of C.

ENVI A490 Topics in Environment and Society **3 Credits**
A seminar focusing on approaches and practices for addressing social concerns related to environmental problems.
Special Note: May be repeated twice with change of subtitle.
Prerequisites: ENVI A211 with a minimum grade of D or ENVI A212 with a minimum grade of D.

ENVI A498 Directed Research **2-6 Credits**
Student research conducted on specific topic in environmental studies and/or science. Research topic to be approved and directed by a faculty member in the Department of Geography and Environmental Studies.
Special Note: May be repeated for a maximum of 6 credits.
Registration Restrictions: Faculty permission

ENVI A499 Senior Thesis **3 Credits**
Independent research culminating in the completion of a senior thesis in environmental studies and/or science. Research topic to be approved and directed by a faculty member in the Department of Geography and Environmental Studies.
Special Note: May be repeated for a maximum of 6 credits.
Registration Restrictions: Senior standing and faculty permission

Fire Science (FIRE)

Courses

FIRE A101 Principles of Emergency Services **3 Credits**
Provides overview of fire protection and emergency services (ES). Includes introduction to the history and development of the fire service, as well as careers in fire and emergency service.

FIRE A105 Fire Prevention **3 Credits**
Provides fundamental knowledge relating to the field of fire prevention. Topics include history and philosophy of fire prevention, organization and operation of a fire prevention bureau, use and application of codes and standards, review of prevention plans, fire inspections, fire and life safety education, and fire investigation.

FIRE A121 Fire Behavior and Combustion **3 Credits**
Explores the theories and fundamentals of how and why fires start, spread, and are controlled.
Prerequisites: MATH A105 with a minimum grade of C or concurrent enrollment or MATH A121 with a minimum grade of C or concurrent enrollment or MATH A151 with a minimum grade of C or concurrent enrollment or MATH A152 with a minimum grade of C or concurrent enrollment or MATH A155 with a minimum grade of C or concurrent enrollment or MATH A211 with a minimum grade of C or concurrent enrollment or MATH A212 with a minimum grade of C or concurrent enrollment or MATH A221 with a minimum grade of C or concurrent enrollment or MATH A251 with a minimum grade of C or concurrent enrollment or MATH A251F with a minimum grade of C or concurrent enrollment or MATH A252 with a minimum grade of C or concurrent enrollment or MATH A252F with a minimum grade of C or concurrent enrollment or MATH A253 with a minimum grade of C or concurrent enrollment.

FIRE A131 Firefighter I, Series I **3 Credits**
Presents fundamental knowledge of fire behavior, fire organizations, types of fire equipment, emergency response services processes, and methods of their use. Includes orientation, safety, fire behavior, building construction, protective clothing, and self-contained breathing apparatus (SCBA).
Special Note: Successful completion of all four Firefighter I series will qualify/prepare the student to sit for Alaska State Fire Fighter I certification exam. All students are required to wear a complete set of fire department approved protective clothing (turnout gear) during skills training. (Turnout gear provided)

FIRE A133 Firefighter I, Series II **3 Credits**
Introduces the fundamental knowledge of fire behavior, fire organizations, types of fire equipment, emergency services processes and methods of their use. Includes portable extinguishers, ropes and knots, building search, victim removal, forcible entry tools, construction, techniques, and ground ladders.
Special Note: Successful completion of all four Firefighter I series will qualify/prepare the student to sit for Alaska State Fire Fighter I certification exam. All students are required to wear a complete set of fire department approved protective clothing (turnout gear) during skills training. (Turnout gear provided)
Prerequisites: FIRE A131 with a minimum grade of D.

FIRE A135 Firefighter I, Series III **3 Credits**
Provides fundamental knowledge of fire behavior, fire organizations, types of fire equipment, emergency response services processes, and methods of their use. Includes ventilation, water supply, hose rolling, coupling, loading, carrying, advancing, laying, and water fire streams.
Special Note: Successful completion of all four Firefighter I series will qualify/prepare the student to sit for Alaska State Fire Fighter I certification exam. All students are required to wear a complete set of fire department approved protective clothing (turnout gear) during skills training. (Turnout gear provided)
Prerequisites: FIRE A133 with a minimum grade of D.

FIRE A137 Firefighter I, Series IV **3 Credits**
Provides fundamental knowledge of fire behavior, fire organizations, types of fire equipment, emergency response services processes, and methods of their use. Includes wildland fire control, classes of fire, vehicle fires, sprinkler systems, salvage, overhaul, fire cause, communications equipment and techniques, fire prevention, and public fire education.
Special Note: Successful completion of all four Firefighter I series will qualify/prepare the student to sit for Alaska State Fire Fighter I certification exam. All students are required to wear a complete set of fire department approved protective clothing (turnout gear) during skills training. (Turnout gear provided)
Prerequisites: FIRE A135 with a minimum grade of D.

FIRE A151 Wildland Fire Control I **3 Credits**
Provides entry level and experienced firefighters with fundamental knowledge of wildland fire organization, fire behavior, air operations, suppression methods, safety, ICS, portable pumps, water use and wildfire chainsaw operations.
Special Note: Successful course completion combined with physical fitness requirements may qualify the student for an Interagency Fire Qualification Card (Red Card) with a rating of "Firefighter."

FIRE A160 Personal Emergency Preparedness **1 Credit**
Introduces the main components of the Incident Command System (ICS).
Special Note: Course prepares student to complete the Federal Emergency Management Agency (FEMA) Incident Command System (ICS) 100/700/800 certification exam.

FIRE A161 Community Emergency Organization Response **2 Credits**
Introduces how the Incident Command System (ICS) responds to a disaster.
Special Note: Course prepares a student to complete the Federal Emergency Management Agency (FEMA) Incident Command System (ICS) 200 certification exam.
Registration Restrictions: Instructor approval if prerequisite is not met
Prerequisites: FIRE A160 with a minimum grade of C.

FIRE A162 Community Emergency Response Resources **2 Credits**
Introduces how ICS fits into the command structure of the National Incident Management Structure (NIMS). Defines and identifies the primary features of the Unified Command.
Special Note: Course prepares students to complete the Federal Emergency Management Agency (FEMA) Incident Command System (ICS) 300 certification exam.
Registration Restrictions: Instructor approval if prerequisite is not met
Prerequisites: FIRE A161 with a minimum grade of C.

FIRE A163 Community Response to Complex Incidents **2 Credits**
Introduces community-level complex incident response management.
Special Note: Course prepares students to complete the Federal Emergency Management Agency (FEMA) Incident Command System (ICS) 400 certification exam.
Registration Restrictions: Instructor approval if prerequisite is not met
Prerequisites: FIRE A162 with a minimum grade of C.

FIRE A190 Selected Topics in Fire and Emergency Services **1-3 Credits**
Covers various topics in fire and emergency services technology. Course content is determined by student or industry needs.
Special Note: Course may not be repeated with same title.
Registration Restrictions: Departmental approval

FIRE A201 Principles of Emergency Management **3 Credits**
Examines the history of emergency management. Identifies and determines risk assessments for natural and technological hazards. Identifies and assesses the disciplines of emergency management. Examines international disaster management, emergency management and terrorism, and discusses the future of emergency management.
Prerequisites: FIRE A101 with a minimum grade of D.

FIRE A206 Building Construction Issues Related to Fire Protection **3 Credits**
This course examines building construction and design related to firefighter and life safety.
Prerequisites: FIRE A101 with a minimum grade of C and FIRE A121 with a minimum grade of C.

FIRE A214 Fire Protection Systems **3 Credits**
Provides information relating to the features of design and operation of fire alarm systems, water-based fire suppression systems, special hazard fire suppression systems, water supply for fire protection and portable fire extinguishers.
Prerequisites: FIRE A101 with a minimum grade of C and FIRE A105 with a minimum grade of C and FIRE A121 with a minimum grade of C.

FIRE A221 Principles of Fire and Emergency Services Safety and Survival **3 Credits**
Introduces the basic principles and history related to the national firefighter life safety initiatives, focusing on the need for cultural and behavioral change throughout the emergency services.
Prerequisites: FIRE A101 with a minimum grade of C and FIRE A121 with a minimum grade of C.

FIRE A295 Fire and Emergency Services Practicum **3 Credits**
Provides an opportunity to observe, participate and apply firefighting, emergency medical or emergency management skills in a structured and supervised organizational setting.
Registration Restrictions: Departmental approval
Prerequisites: FIRE A101 with a minimum grade of C and (EMT A110 with a minimum grade of C or EMT A130 with a minimum grade of C or FIRE A121 with a minimum grade of C or FIRE A201 with a minimum grade of C).

French (FREN)

Courses

FREN A101 Elementary French I **4 Credits**
Introductory course for students with no previous knowledge of the French language. Develops listening, speaking, reading, and writing skills in French for effective communication at the elementary level. Students gain understanding of basic cross-cultural perspectives. Course conducted in French.
Attributes: UAA Humanities GER.

FREN A102 Elementary French II **4 Credits**
Continuation of introductory course. Further develops elementary listening, speaking, reading, and writing skills in French for effective communication. Enhances appreciation of cross-cultural perspectives. Course conducted in French.
Prerequisites: FREN A101 with a minimum grade of D.
Attributes: UAA Humanities GER.

FREN A201 Intermediate French I **4 Credits**
Intermediate course for students with basic knowledge of French. Enhances listening, speaking, reading, and writing skills for effective communication at the intermediate level. Students critically examine diverse cultural perspectives. Course conducted in French.
Prerequisites: FREN A102 with a minimum grade of D.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER.

FREN A202 Intermediate French II **4 Credits**
Continuation of first semester in intermediate French. Further develops listening, speaking, reading, and writing proficiency for effective communication and in preparation for advanced study of French. Students interpret diverse cultural perspectives. Course conducted in French.
Prerequisites: FREN A201 with a minimum grade of D.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER.

FREN A301 Advanced French I **4 Credits**
Advanced French course in refining listening, speaking, reading, writing, and analytical skills for effective interaction in communicatively complex situations. Students critically analyze diverse cultural topics.
Special Note: Course conducted in French.
Registration Restrictions: If prerequisite not met, students can gain entrance to course with departmental approval.
Prerequisites: FREN A202 with a minimum grade of C.

FREN A302 Advanced French II **4 Credits**
Continuation of first semester in advanced French. Further refines listening, speaking, reading, writing, and analytical skills for effective interaction in communicatively complex situations. Students critically analyze diverse cultural topics.
Special Note: Course conducted in French.
Registration Restrictions: If prerequisite not met, students can gain entrance to course with departmental approval.
Prerequisites: FREN A301 with a minimum grade of C.

FREN A306 Advanced French Conversation and Composition **3 Credits**
Reading, speaking and writing about France and Francophone countries, their peoples, customs and cultures.
Special Note: May be repeated twice with a change of subtitle. Course conducted in French.
Prerequisites: FREN A302 with a minimum grade of C.

FREN A310 Selected Topics: Literary Trends and Traditions **3 Credits**
Focuses on diverse literary traditions of multiple French-speaking communities. Critical analysis through a variety of disciplinary methodologies (e.g. historical, cultural, artistic); terminology also explored and developed. Enhances French language skills in writing, reading, speaking, listening and cultural literacy.
Special Note: May be repeated for credit with a change of subtitle. Course conducted in French.
Prerequisites: FREN A302 with a minimum grade of C.

FREN A490 Selected Topics: Studies in French/Francophone Literature and Culture **3 Credits**
Focuses on the intensive study of authors, literary movements, periods and genres in their historical and cultural contexts. Enhances French language skills in reading, listening, writing, speaking and cultural literacy.
Special Note: May be repeated five times for credit with a change in subtitle. Course conducted in French.
Prerequisites: FREN A302 with a minimum grade of C.

Geographic Information Systems (GIS)

Courses

GIS A101 Introduction to Geographic Information Systems **2 Credits**
Introduces the concepts and practical skills of geographic information systems (GIS). Covers the digital representation of geographic objects, data sources, data input and manipulation, map projection and coordinate systems including the Public Land Survey System (PLSS), data management and analysis, and mapping and presentation of geographic information.
Corequisites: GIS A101L.

GIS A101L Introduction to Geographic Information Systems Lab **1 Credit**
Provides practical, hands-on experience with Geographic Information Systems (GIS), reinforcing key concepts from the accompanying lecture. Subjects include but are not limited to geospatial data collection, data visualization, mapping techniques, and fundamental spatial analysis to support decision-making.
Corequisites: GIS A101.

GIS A201 Intermediate Geographic Information Systems **3 Credits**
Introduces theoretical and practical examination of analytical methods used in advanced Geographic Information Systems (GIS). Topics include intermediate spatial analysis, geodatabases, attribute data and metadata development, advanced cartographic theory-design, and raster analysis.
Prerequisites: GIS A101 with a minimum grade of C and (MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C).

GIS A301 Web GIS **3 Credits**
Introduces the principles and practical applications of using web technologies to solve geospatial problems.
Prerequisites: CSCE A101 with a minimum grade of C and GIS A201 with a minimum grade of C.

GIS A351 Remote Sensing **3 Credits**
Introduces principles of image formation, electromagnetic spectrum, imaging systems, photo interpretation and image classification using image analysis software.
Prerequisites: GIS A201 with a minimum grade of C or concurrent enrollment.

GIS A458 Spatial Data Management **3 Credits**
Presents database technology underlying database management systems. Topics include database design concepts, spatial databases, querying, implementation of relational and spatial operators, and system architecture for spatial and non-spatial databases.
Special Note: Not available for credit to students who have taken GIS A658.
May Be Stacked With: GIS A658
Prerequisites: GIS A201 with a minimum grade of C.

GIS A466 Spatial Analysis **3 Credits**
Introduces theoretical foundation for, and practical application of, the statistical analysis of spatial data. Topics include characterization of spatial data, techniques for visualizing, exploring and modeling spatial data distributed as point patterns, continuous data, area data, and spatial interaction data.
Special Note: Not available for credit to students who have taken GIS A666.
May Be Stacked With: GIS A666
Prerequisites: GIS A201 with a minimum grade of C and STAT A253 with a minimum grade of C.

GIS A467 Image Analysis **3 Credits**
Introduces principles of digital image processing, multi-temporal image analysis, change detection and spatio-temporal geo-visualization.
Special Note: Not available for credit to students who have taken GIS A667.
May Be Stacked With: GIS A667
Prerequisites: CSCE A101 with a minimum grade of C and GIS A201 with a minimum grade of C.

GIS A498 Individual Research **1-3 Credits**
Covers process of successful undergraduate research from literature review to completion of the research and its publication. Students will be engaged in an independent research project covering topics in geomatics under the supervision of a faculty member.
Special Note: May be repeated for a maximum of 6 credits.
Registration Restrictions: Admission to the Bachelor of Science in Geomatics, junior or senior standing, and department approval

GIS A658 Advanced Database Management Systems **3 Credits**
Presents database technologies underlying database management systems. Includes database design concepts, querying, implementation of relational and spatial operators, and system architecture for spatial and non-spatial databases. Includes analysis of research articles on working with large datasets.
Special Note: Not available for credit to students who have completed GIS A458.
Registration Restrictions: Graduate standing or instructor approval
May Be Stacked With: GIS A458

GIS A666 Statistical Analysis for Geospatial Applications **3 Credits**
Presents the theoretical basis for, and practical application of the statistical analysis of spatial data. Covers characterization of spatial data, techniques for visualizing, exploring and modeling spatial data distributed as point patterns, continuous data, area data, and spatial interaction data. Includes analysis of research articles on advanced spatial analysis subjects.
Special Note: Not available for credit to students who have completed GIS A466.
Registration Restrictions: Graduate standing or instructor approval
May Be Stacked With: GIS A466

GIS A667 Digital Image Processing and Analysis **3 Credits**
Covers principles of digital image processing, multi-temporal image analysis, change detection, and spatio-temporal geo-visualization. Includes analysis of research articles on advanced digital image processing and analysis topics.
Special Note: Not available for credit to students who have completed GIS A467.
Registration Restrictions: Graduate standing or instructor approval
May Be Stacked With: GIS A467

GIS A690 Selected Topics in Data Science and Engineering **1-3 Credits**
Examines advanced topics in data science and engineering.
Special Note: May be repeated for a maximum of 6 credits with a change of subtitle.
Registration Restrictions: Graduate standing or instructor approval
Crosslisted With: EE A690

GIS A695 Professional Internship **3 Credits**
Applies data science and/or data engineering skills in a professional work setting. Arranges assignments and projects with cooperating organizations and agencies.
Registration Restrictions: Graduate standing and instructor approval
Crosslisted With: CSCE A695 and EE A695

GIS A698 Individual Research **3 Credits**
Engages students in an independent research project under the supervision of a faculty member. Results will be prepared to a publishable standard as determined by the graduate advisor.
Special Note: May be repeated once for credit.
Registration Restrictions: Graduate standing and instructor approval

Geography (GEOG)

Courses

GEOG A101 Local Places/Global Regions: An Introduction to Geography **3 Credits**
Explores cultural, social, political, and environmental diversity in an international context. Focus on key global issues, current events, and geographic approaches to understanding world problems.
Crosslisted With: INTL A101.
Attributes: UAA Intercultural Fluency GER, UAA Social Sciences GER.

GEOG A111 Discovering Alaska and Earth's Physical Geography: From Weather to Glaciers **3 Credits**
Surveys the processes that form the physical environment and the resulting physical patterns. Studies landforms, climate, soils, water resources, vegetation and their world and regional patterns.
Attributes: UAA Natural Sciences GER.

GEOG A111L Discovering Alaska and Earth's Physical Geography: From Weather to Glaciers Laboratory **1 Credit**
Introduces concepts in physical geography including maps and map interpretation, fundamentals of geographic information systems, collection and evaluation of data in field settings, and the scientific method.
Special Note: Primarily for non-science majors.
Prerequisites: GEOG A111 with a minimum grade of C or concurrent enrollment.
Attributes: UAA Natural Sci Lab Only GER.

GEOG A307 Demography **3 Credits**
Analyzes population change, distribution and composition at the global and local level with an emphasis on fertility, mortality and health, and migration. Examines major theories of population change, evaluates demographic methods, and applies empirical data to population-based questions.
Crosslisted With: SOC A307.
Prerequisites: SOC A101 with a minimum grade of C or GEOG A101 with a minimum grade of C or INTL A101 with a minimum grade of C.

GEOG A390A Selected Topics in Global Geography **3 Credits**
Explores a thematic approach to human geography in a global context. Draws on the interdisciplinary nature of geography to provide students with a broad understanding of critical global issues.
Special Note: May be repeated twice with change of subtitle.
Registration Restrictions: Completion of Tier 1 (basic college-level skills) courses and junior or senior standing
Prerequisites: GEOG A101 with a minimum grade of C or INTL A101 with a minimum grade of C.
Attributes: UAA Integrative Capstone GER.

GEOG A470 Environmental Policy and Regulation in Alaska **3 Credits**
Examines environmental policy and law as it applies to Alaska. Covers key legislation such as the National Environmental Policy Act, Clean Air and Water Acts, Endangered Species Act, Marine Mammal Protection Act, Executive Orders on Environmental Justice, etc. Involves substantial practical work, including hands-on, team exercises writing environmental documents related to NEPA, environmental assessment, and environmental impact statements.
Registration Restrictions: Completion of Tier 1 (basic college-level) GER courses and junior or senior standing
May Be Stacked With: GEOG A670
Attributes: UAA Integrative Capstone GER.

GEOG A475 Geospatial and Cartographic Techniques for the Sciences **3 Credits**
Examines mobile geospatial data collection, concepts in Geographic Information Systems (GIS), vector cartography, geographic story maps and other forms of geospatial visualization. Application of tools in scientific (natural and social sciences) and public policy context.
Registration Restrictions: Completion of Tier 2 courses and junior or senior standing.

GEOG A670 Environmental Policy and Regulation in Alaska **3 Credits**
Examines environmental policy and law as it applies to Alaska. Covers key legislation such as the National Environmental Policy Act, Clean Air and Water Acts, Endangered Species Act, Marine Mammal Protection Act, Executive Orders on Environmental Justice, etc. Involves substantial practical work, including hands-on, team exercises writing environmental documents related to NEPA, environmental assessment, and environmental impact statements.
Special Note: Not available for credit to students who have completed GEOG A470.
Registration Restrictions: Graduate standing
May Be Stacked With: GEOG A470

Geology (GEOL)

Courses

GEOL A111 Planet Earth **3 Credits**
Introduces physical geology, study of earth and its materials. Includes processes that operate on and within earth. Formation of common rocks and minerals, and basics of mineral and rock identification and classification.
Registration Restrictions: MATH A055 or higher
Attributes: UAA Natural Sciences GER.

GEOL A111L Planet Earth Laboratory **1 Credit**
Introduces students to laboratory skills in physical geology. Emphasizes practical skills such as the identification and classification of minerals and rocks. Covers the proper use and interpretation of topographic and geologic maps, and remote sensing data. Applies lab skills to solve real-world problems in the geosciences. Includes on-site interpretation of geology on a field trip led by the instructor.
Prerequisites: GEOL A111 with a minimum grade of C or concurrent enrollment.
Attributes: UAA Natural Sci Lab Only GER.

GEOL A115 Dangerous Earth **3 Credits**
Introduces the study of applied environmental geology with a focus on geologic processes and linkages to how humans interact with the geologic environment. Includes both internal and external Earth processes and related topics such as climate change, earthquakes, volcanic eruptions, coastal processes, and mineral and energy resources.

Registration Restrictions: MATH A055 or higher
Attributes: UAA Natural Sciences GER.

GEOL A115L Dangerous Earth Laboratory **1 Credit**
Investigates problems in environmental geology related to volcanic and earthquake hazards, surface and groundwater pollution, landslides, coastal processes, and waste disposal with emphasis on the local areas in Alaska. Includes several local field trips.
Registration Restrictions: MATH A055 or higher
Prerequisites: GEOL A115 with a minimum grade of C or concurrent enrollment.
Attributes: UAA Natural Sci Lab Only GER.

GEOL A121 Physical Geology for Science and Engineering Majors **4 Credits**
Development of applied geology skills through the study of Earth, its materials, and processes operating on and within the planet. Laboratory training in geologic maps and identification and interpretation of minerals and rocks.
Registration Restrictions: MATH A055 or higher. Declared major in science or engineering and instructor approval.

GEOL A178 Introduction to Oceanography **3 Credits**
Study of the oceans combining insights from geological, chemical, physical and biological oceanography. Topics include plate tectonics and the evolution of the ocean basins, the chemical composition of seawater, forces acting on water to generate waves and currents, interrelationships among physical, chemical and biological processes, and complex societal issues such as global climate change, fisheries management and pollution.
Registration Restrictions: Placement into Quantitative Skills GER
Crosslisted With: BIOL A178
Attributes: UAA Natural Sciences GER.

GEOL A190 Introductory Topics in Geology **1-3 Credits**
Introductory study of a selected topic in geology.
Special Note: May be repeated with change of topic.

GEOL A221 Journey Through Time **4 Credits**
Introduces the history of the Earth through geologic time, emphasizing North America. Includes major events in plate tectonics, the evolution of life forms and interpretation of the rock record. Lab includes invertebrate fossil identification, geologic map interpretation, stratigraphic principles and field trip.
Prerequisites: (GEOL A111 with a minimum grade of C and GEOL A111L with a minimum grade of C) or (GEOL A115 with a minimum grade of C and GEOL A115L with a minimum grade of C) or (GEOL A121 with a minimum grade of C) and (MATH A105 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A211 with a minimum grade of C or MATH A212 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C or ALEKS Overall Test 1 with a score of 055 or ALEKS Overall Test 2 with a score of 055 or ALEKS Overall Test 3 with a score of 055 or ALEKS Overall Test 4 with a score of 055 or ALEKS Overall Test 5 with a score of 055).
Attributes: UAA Natural Science w/ Lab GER.

GEOL A225 Earth Surface Processes **3 Credits**
Introduces the identification and mapping of landforms, and quantitative study of processes that shape the earth's surface. Combines theory, field observations, basic data analysis, and modeling to investigate geomorphic systems that affect humanity.
Prerequisites: GEOL A221 with a minimum grade of C.

GEOL A310 Professional Practices in Geology **3 Credits**
Introduces workplace ethics, responsibilities, and expectations of geologists in a professional role. Practices research methods, writing, and presentation techniques in the geosciences. Includes research design, proposal writing, resume and job applications, scientific writing, critical review, and oral presentation techniques.
Registration Restrictions: Admission to the Bachelor of Science in Geological Sciences
Prerequisites: (GEOL A111 with a minimum grade of C and GEOL A111L with a minimum grade of C) or (GEOL A115 with a minimum grade of C and GEOL A115L with a minimum grade of C) or (GEOL A121 with a minimum grade of C) and (WRTG A211 with a minimum grade of D or WRTG A212 with a minimum grade of D or WRTG A213 with a minimum grade of D or WRTG A214 with a minimum grade of D or WRTG A2W with a minimum grade of D).

GEOL A315 Geological Data Visualization and Analysis **3 Credits**
Introduces different types of geological data and basic computational methods for visualization and analysis. Provides skills to understand the nature of geoscience datasets and perform quantitative interpretation to fully understand many subject areas in geosciences.
Prerequisites: GEOL A225 with a minimum grade of C.

GEOL A320 Volcanology **3 Credits**
The description and classification of volcanoes, volcanic eruptions, and volcanic deposits. Includes the history of volcanic studies, myths, and legends. Emphasis on the dynamics of volcanic eruptions, pyroclastic rocks, lava flows, and volcanic hazard assessment.
Prerequisites: GEOL A221 with a minimum grade of D.

GEOL A321 Mineralogy **4 Credits**
Covers crystallography, including external form and internal order. Includes crystal chemistry, atomic structure, crystal structure, and compositional variation, nature and origin of physical properties of minerals. Mineral association, occurrence and paragenesis. Introduces x-ray crystallography and optical mineralogy. Laboratory includes determinative crystallography, optical mineralogy and systematic determinative mineralogy.
Prerequisites: (CHEM A105 with a minimum grade of C and CHEM A105L with a minimum grade of C) and ((GEOL A111 with a minimum grade of C and GEOL A111L with a minimum grade of C) or (GEOL A115 with a minimum grade of C and GEOL A115L with a minimum grade of C) or GEOL A121 with a minimum grade of C) and (MATH A105 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A211 with a minimum grade of C or MATH A212 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C or ALEKS Overall Test 1 with a score of 055 or ALEKS Overall Test 2 with a score of 055 or ALEKS Overall Test 3 with a score of 055 or ALEKS Overall Test 4 with a score of 055 or ALEKS Overall Test 5 with a score of 055) and (PHYS A123 with a minimum grade of C and PHYS A123L with a minimum grade of C).

GEOL A322 Igneous and Metamorphic Petrology **4 Credits**
Covers identification and classification of igneous and metamorphic rocks, interpretation of textures, structures, and mineralogy of rocks. Includes the study of chemical and physical principles controlling the formation of rocks, importance of various rock types in economic and industrial arenas. Extensive study of hand specimens with emphasis on composition, texture and structure.
Prerequisites: GEOL A310 with a minimum grade of C and GEOL A321 with a minimum grade of C.

GEOL A331 Sedimentology and Stratigraphy **4 Credits**
Surveys sediments including origins, classification, transportation, composition, structures, and diagenesis. Includes stratigraphic principles of lithostratigraphy, biostratigraphy, magnetostratigraphy, chronostratigraphy, and seismic stratigraphy. Lab includes grain size analysis, sedimentary structures, correlation, and field practicum.
Prerequisites: GEOL A225 with a minimum grade of C and GEOL A310 with a minimum grade of C.

GEOL A333 Earthquakes and Seismic Hazards **3 Credits**
Examines the geology of earthquake-prone regions in all tectonic settings and the impact that earthquakes have on society in terms of hazard assessment and preparation. Addresses fundamental reasons for failure along a fault surface in order to explain when, where and why earthquakes occur. Examines seismic waves, how they are measured, and the information they contain regarding the style of faulting that produced the earthquake. Also considers the study of ancient earthquakes, or paleoseismology, and its usefulness in predicting future earthquakes. Introduces deterministic and probabilistic methods of assessing the seismic hazard in active fault environments for enhanced earthquake preparation in high risk locations.
Prerequisites: GEOL A221 with a minimum grade of C.

GEOL A335 Structural Geology **4 Credits**
Covers fundamental concepts of rock deformation: description and formation of geologic structures; brittle and ductile deformation; characteristic structures in different tectonic environments; concepts of stress, strain and brittle failure mechanics; and salt tectonics. Laboratory includes analysis of structure contours, geologic maps and cross sections, stereonets, kinematic analysis, and the Mohr circle technique.
Prerequisites: GEOL A331 with a minimum grade of C and (MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A211 with a minimum grade of C or MATH A212 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C) and PHYS A123 with a minimum grade of C and PHYS A123L with a minimum grade of C.

GEOL A345 Hydrogeology **3 Credits**
Comprehensively covers the fundamentals of hydrogeology, including physical and hydraulic properties of subsurface aquifers, Darcy's Law and the groundwater flow equation, hydraulic head, storage and effective stress, regional groundwater flow, aquifer hydraulics, and water well design and development.
Special Note: Laboratory time will be used to enhance data analysis, mathematical and problem-solving skill sets.
Prerequisites: GEOL A315 with a minimum grade of C and GEOL A331 with a minimum grade of C and (MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C).

GEOL A350 Geomorphology **4 Credits**
Study of landforms and processes that affect their development, including tectonics, geologic structures, bedrock lithology, streams, glaciers, groundwater, and oceans. Laboratory focuses on formation and genesis of landforms based on evidence from topographic maps and aerial photography.
Prerequisites: GEOL A221 with a minimum grade of D.

GEOL A361 Earth Resources and Society **3 Credits**
A global-scale investigation of the state of water, energy and mineral resources and the linkages to society and the environment. Review of historical sources, uses and demands on water, energy and mineral resources and the connection to human population growth over time. Investigation of the scientific and social motivations for shifting how humans use water, energy and mineral resources.
Registration Restrictions: Junior or senior standing and completion of Tier 1 GER courses
Prerequisites: (GEOL A111 with a minimum grade of C or GEOL A115 with a minimum grade of C or GEOL A121 with a minimum grade of C or GEOL A221 with a minimum grade of C) and (ENVI A211 with a minimum grade of C or ENVI A212 with a minimum grade of C).
Attributes: UAA Integrative Capstone GER.

GEOL A436 Petroleum Geology **3 Credits**
Formation of hydrocarbons, their migration and accumulation in the context of the petroleum system, and their exploration and extraction. Includes an introduction to subsurface datasets used in the petroleum industry and how to integrate them. Conventional and unconventional petroleum systems are discussed in the class using examples from Alaska and around the world.
Special Note: Not available for credit to students who have completed GEOL A636.
May Be Stacked With: GEOL A636
Prerequisites: GEOL A221 with a minimum grade of C.

GEOL A437 Depositional Systems and Dynamic Stratigraphy **3 Credits**
Advanced skills in sedimentary geology that can be applied in oil/gas, hydrology, and mining. Includes greater detail in depositional environments, characteristics of resultant sedimentary deposits, and sequence stratigraphy using various geologic datasets. Emphasis on hands-on application of course concepts in outcrop, core and well-log data.
Special Note: Not available for credit to students who have completed GEOL A637.
May Be Stacked With: GEOL A637
Prerequisites: GEOL A221 with a minimum grade of C.

GEOL A441 Paleoclimatology **3 Credits**
Examines the fundamentals of climate science, changes in Earth's climate, and methods used to reconstruct past climates. Use of paleoclimate data from proxy records like cores of ice, peatland and ocean sediments, and tree rings to help understand how Earth's atmosphere, oceans and land interact with climate through time.
Special Note: Not available for credit to students who have completed GEOL A641.
May Be Stacked With: GEOL A641
Prerequisites: GEOL A221 with a minimum grade of C.

GEOL A444 The Cryosphere **3 Credits**
Examines the components of the cryosphere: sea ice, freshwater ice, snow, glaciers, permafrost and ice sheets. Addresses how the cryosphere is changing, including interconnections with Earth systems such as climate. Explores various datasets and models, from the Arctic to the Antarctic, to learn about the fundamental geoscience processes that govern this critical Earth system component.
Prerequisites: GEOL A225 with a minimum grade of C.

GEOL A448 Structural Geology and Geomechanics **3 Credits**
Examines the classification, origin, and evolution of all types of rock fractures with application to structural analysis, oil and gas reservoirs, resource recovery, engineering geology, hydrogeology, and hazards analysis. Applies continuum and rock mechanics principles to brittle deformation, including rock strength and failure criteria, stress states in the lithosphere, stress tensors, and linear elastic fracture mechanics theory.
Special Note: Students may need to provide their own transportation to a field trip location. Not available for credit to students who have completed GEOL A648.
May Be Stacked With: GEOL A648
Prerequisites: GEOL A335 with a minimum grade of C.

GEOL A461 Geochemistry **3 Credits**
Introduction to principles and applications of inorganic geochemistry. Emphasis on crystal structures and substitution in crystals, equilibrium geochemistry, dissociation of acids and bases, and mineral stability. Applying the laws of thermodynamics, Eh-pH diagrams, and oxidation-reduction reactions to geologic problems. Principles of radioactivity and geochronometers for age determination. A review of applications of stable isotopes to geologic problems.
Special Note: Not available for credit to students who have completed GEOL A661.
Registration Restrictions: Admission to the Bachelor of Science in Geological Sciences
May Be Stacked With: GEOL A661
Prerequisites: CHEM A106 with a minimum grade of C and GEOL A322 with a minimum grade of C.

GEOL A463 Environmental Geochemistry **3 Credits**
Principles and applications of environmental geochemistry on a global scale. Geochemical cycles and chemical mass balance of elements. Chemical weathering and the composition of natural waters. Processes affecting the distribution of trace elements in geologic environments. Stable isotope fractionation and applications to modeling environmental systems. Review of specific cases of modern environmental geochemistry problems.
Special Note: Not available for credit to students who have completed GEOL A663.
May Be Stacked With: GEOL A663
Prerequisites: GEOL A461 with a minimum grade of C.

GEOL A465 Isotope Geochemistry **3 Credits**
Examine principles and applications of radiogenic and stable isotopes with emphasis on application in the hydrologic, earth, and ecosystem sciences. Focuses on both traditional and environmental aspects of isotope geochemistry and biogeochemistry and some special applications to other fields of study such as anthropology, archaeology, and forensics. A class research project will include field sampling, sample analysis, and interpretation.
May Be Stacked With: GEOL A665
Prerequisites: CHEM A106 with a minimum grade of D and GEOL A461 with a minimum grade of D.

GEOL A468 Geomicrobiology **3 Credits**
Examines the mutual interactions between geology and microbiology. Emphasizes microbial processes that affect local and global environments including biogeochemical cycles, co-evolution, microbe-mineral interactions and life in extreme environments.
Crosslisted With: MBIO A468
Prerequisites: MBIO A340 with a minimum grade of C or GEOL A360 with a minimum grade of C.
Attributes: UAA Integrative Capstone GER.

GEOL A476 Applied Geophysics **3 Credits**
Overview of geophysical techniques used for subsurface visualization, mapping and interpretation, with applications to natural resource exploration, geotechnical investigations and environmental studies. Techniques include gravity, magnetic, electric, seismic and well logging. Applications of mathematics and physics-based principles to image shallow and deep subsurface at local and regional scales.
Special Note: Not available for credit to students who have completed GEOL A676.
Registration Restrictions: Instructor permission required for non-majors. Background in calculus-based mathematics or physics is required for geology non-majors.
May Be Stacked With: GEOL A676
Prerequisites: GEOL A335 with a minimum grade of C and (MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C) and PHYS A124 with a minimum grade of C and PHYS A124L with a minimum grade of C.

GEOL A477 Integrated Subsurface Mapping and Analysis **3 Credits**
Integration of different geologic and geophysical data for subsurface interpretation and energy exploration. Application of state-of-the-art technologies on real datasets for subsurface mapping, quantitative basin analysis, technical assessment of hydrocarbon prospects, and uncertainty analysis in active and team-based learning environments.
Special Note: Optionally, a group of five students may be selected to participate in the nationally competitive Imperial Barrel Award (IBA) competition organized by the American Association of Petroleum Geologists. GEOL A476 or GEOL A676 is recommended prior to enrollment in this course, but not required. Not available for credit to students who have completed GEOL A677.
May Be Stacked With: GEOL A677
Prerequisites: GEOL A315 with a minimum grade of C and GEOL A335 with a minimum grade of C.

GEOL A480 Geologic Field Methods **3 Credits**
Introduces principles and applications of basic geologic field methods including construction of bedrock geologic maps and cross-sections. Emphasizes field note taking, geologic mapping, stratigraphic section measurement and construction. Requires students to complete several field projects including written summary reports.
Special Note: Students may be required to provide their own transportation to and from field sites.
Prerequisites: GEOL A310 with a minimum grade of C and GEOL A322 with a minimum grade of C and GEOL A335 with a minimum grade of C and GEOL A350 with a minimum grade of C.

GEOL A490 Advanced Topics in Geology **1-4 Credits**
Detailed study of a selected topic in geology.
Special Note: May be repeated for credit with change of subtitle. Not available for credit to students who have completed GEOL A690 with same subtitle.
May Be Stacked With: GEOL A690
Prerequisites: GEOL A221 with a minimum grade of C.

GEOL A492 Geology Seminar **1 Credit**
Lecture series with invited professional geologists, discussion of relevant professional papers and research. Topical nature of material.
Special Note: May be repeated under different subtitles for a maximum of 3 credits.
Prerequisites: GEOL A221 with a minimum grade of D.

GEOL A495 Geology Internship **1-3 Credits**
Work experience in an approved position with supervision and training in various agencies and businesses. Exposes student to work environment beyond the campus setting, to acquire essential practical skills and enhance self-confidence and career direction.
Special Note: May be repeated, but only 3 credits count toward major requirements.
Registration Restrictions: Junior standing

GEOL A498 Student Research **1-3 Credits**
Student research conducted on specific subjects in geology. Research topic to be approved and directed by a faculty member in the Department of Geological Sciences.
Special Note: May be repeated for a maximum of 6 credits.
Registration Restrictions: Faculty permission.

GEOL A499 Senior Thesis **3 Credits**
Planning, preparation and completion of senior thesis for the BS in Geological Sciences.
Special Note: May be repeated for a maximum of 6 credits.
Registration Restrictions: Senior standing and faculty permission.

GEOL A636 Advanced Petroleum Geology **3 Credits**
Advanced study of the formation of hydrocarbons, their migration and accumulation in the context of the petroleum system, and their exploration and extraction. Emphasizes interpretation of subsurface data used in the petroleum industry and their integration. Conventional and unconventional petroleum systems from Alaska and around the world included.
Registration Restrictions: Graduate standing
Special Note: Not available for credit to students who have completed GEOL A436.
May Be Stacked With: GEOL A436

GEOL A637 Advanced Depositional Systems and Dynamic Stratigraphy **3 Credits**
Advanced skills in sedimentary geology that can be applied in oil/gas, hydrology, and mining. Includes greater detail in depositional environments, characteristics of resultant sedimentary deposits, and sequence stratigraphy using various geologic datasets. Emphasis on hands-on application of course concepts in outcrop, core and well-log data.
Special Note: Not available for credit to students who have completed GEOL A437.
Registration Restrictions: Graduate standing
May Be Stacked With: GEOL A437

GEOL A641 Paleoclimatology **3 Credits**
Examines the fundamentals of climate science, changes in Earth's climate, and methods used to reconstruct past climates. Use of paleoclimate data from proxy records like cores of ice, peatland and ocean sediments, and tree rings to help understand how Earth's atmosphere, oceans and land interact with climate through time.
Special Note: Not available for credit to students who have completed GEOL A441. Graduate students have additional student learning outcomes and course expectations.
May Be Stacked With: GEOL A441

GEOL A648 Advanced Structural Geology and Geomechanics **3 Credits**
Classification, origin and evolution of all types of rock fractures with application to structural analysis, oil and gas reservoirs, resource recovery, engineering geology, hydrogeology and hazards analysis. Application of continuum and rock mechanics principles to brittle deformation, including rock strength and failure criteria, stress states in the lithosphere, stress tensors and linear elastic fracture mechanics theory.
Special Note: Students may need to provide their own transportation to a field trip location. Not available for credit to students who have completed GEOL A448.
Registration Restrictions: Graduate standing or instructor permission.

May Be Stacked With: GEOL A448

GEOL A661 Advanced Geochemistry **3 Credits**
Introduction to principles and applications of inorganic geochemistry. Emphasis on crystal structures and substitution in crystals, equilibrium geochemistry, dissociation of acids and bases, and mineral stability. Applying the laws of thermodynamics, Eh-pH diagrams, and oxidation-reduction reactions to geologic problems. Principles of radioactivity and geochronometers for age determination. A review of applications of stable isotopes to geologic problems.
Special Note: Not available for credit to students who have completed GEOL A461.
Registration Restrictions: Graduate standing or instructor permission
May Be Stacked With: GEOL A461

GEOL A663 Environmental Geochemistry **3 Credits**
Principles and applications of environmental geochemistry on a global scale. Geochemical cycles and chemical mass balance of elements. Chemical weathering and the composition of natural waters. Processes affecting the distribution of trace elements in geologic environments. Stable isotope fractionation and applications to modeling environmental systems. Review of specific cases of modern environmental geochemistry problems. Independent research project required.
Special Note: Students are required to have background in physical and historical geology. Not available for credit to students who have completed GEOL A463.
Registration Restrictions: Graduate standing or instructor approval
May Be Stacked With: GEOL A463

GEOL A665 Isotope Geochemistry **3 Credits**
Principles and applications of radiogenic and stable isotopes with emphasis on applications in the hydrologic, earth and ecosystem sciences. Focus on both traditional and environmental aspects of isotope geochemistry and biogeochemistry and some special applications to other fields of study such as anthropology, archaeology and forensics. A class research project will include field sampling, sample analysis and interpretation. Independent research project required.
Registration Restrictions: Graduate standing
May Be Stacked With: GEOL A465
Prerequisites: CHEM A106 with a minimum grade of D and GEOL A461 with a minimum grade of D.

GEOL A676 Applied Geophysics **3 Credits**
Overview of geophysical techniques used for subsurface visualization, mapping and interpretation, with applications to natural resource exploration, geotechnical investigations and environmental studies. Techniques include gravity, magnetic, electric, seismic and well logging. Applications of mathematics and physics-based principles to image shallow and deep subsurface at local and regional scales.
Special Note: Not available for credit to students who have completed GEOL A476.
Registration Restrictions: Graduate standing or instructor permission.

May Be Stacked With: GEOL A476

GEOL A677 Integrated Subsurface Mapping and Analysis **3 Credits**
Integration of different geologic and geophysical data for subsurface interpretation and energy exploration. Application of state-of-the-art technologies on real datasets for subsurface mapping, quantitative basin analysis, technical assessment of hydrocarbon prospects, and uncertainty analysis in active and team-based learning environments.
Special Note: A group of five students will be selected to participate at the Imperial Barrel Award (IBA) competition organized by the American Association of Petroleum Geologists (AAPG). Not available for credit to students who have completed GEOL A477.
May Be Stacked With: GEOL A477

GEOL A678 Petroleum Geophysics and Petrophysics **3 Credits**
Principles and methods in seismic analysis and petrophysics, with emphasis on hydrocarbon exploration from conventional and unconventional reservoirs and CO2 storage. Extensive practical training on 2D/3D seismic data analysis, and integration with petrophysical logs to interpret structural and stratigraphic features, analyze subsurface lithology, pore fluid, and map reservoir geobodies.
Registration Restrictions: Graduate standing or instructor permission. Basic understanding of structural geology and/or stratigraphy required.

GEOL A688 Professional Project **3 Credits**
Individualized professional project in an area of geological sciences as related to the profession. Project topic must be approved by the graduate committee.
Registration Restrictions: Graduate standing or instructor permission.

GEOL A689 Geology Graduate Professional Practices **3 Credits**
Professional development of graduate students in preparation for careers in the geosciences.
Registration Restrictions: Graduate students must take this course by the end of the second semester of their degree program.

GEOL A690 Graduate Topics in Geology **1-4 Credits**
Intensive study of narrowly defined topic in geology with emphasis on current problems. Independent research project required.
Special Note: Students are required to have background in physical and historical geology. May be repeated for a maximum of 9 credits with change of subtitle. Not available for credit to students who have completed GEOL A490 with the same subtitle.
Registration Restrictions: Graduate standing or instructor approval.
May Be Stacked With: GEOL A490

GEOL A698 Directed Research **1-6 Credits**
Thesis-specific research for the Master of Science in Applied Geological Sciences. Research topic must be approved by thesis advisor.
Special Note: May be repeated for a maximum of 9 credits.
Registration Restrictions: Graduate standing and thesis advisor approval

GEOL A699 Graduate Thesis **1-3 Credits**
Preparation and completion of thesis for the Master of Science in Applied Geological Sciences.
Special Note: May be repeated for a maximum of 3 credits.
Registration Restrictions: Graduate standing and permission of graduate advisor required.

Geomatics (GEO)

Courses

GEO A146 Geomatics Computations **3 Credits**
Introduces fundamental methods of computation and analytic geometry in Geomatics. Covers the representation of points, lines, and planes, calculation of distances, intersections, and areas, as well as coordinate systems and basic transformations.
Prerequisites: MATH A152 with a minimum grade of C or concurrent enrollment or MATH A155 with a minimum grade of C or concurrent enrollment or MATH A211 with a minimum grade of C or concurrent enrollment or MATH A212 with a minimum grade of C or concurrent enrollment or MATH A221 with a minimum grade of C or concurrent enrollment or MATH A251 with a minimum grade of C or concurrent enrollment or MATH A251F with a minimum grade of C or concurrent enrollment or MATH A252 with a minimum grade of C or concurrent enrollment or MATH A252F with a minimum grade of C or concurrent enrollment or MATH A253 with a minimum grade of C or concurrent enrollment.

GEO A155 Introduction to Surveying **2 Credits**
Introduces field surveying theory and techniques for non-geomatics majors. Subject areas include distance measurement, leveling, angular measurements, volume measurement, basic traversing, measurement adjustments, fundamentals of mapping, geographic information systems and use and care of surveying instruments.
Prerequisites: ES A106 with a minimum grade of C or concurrent enrollment.
Corequisites: GEO A155L.

GEO A155L Introduction to Surveying Laboratory **1 Credit**
Covers laboratory skills in geospatial plane measurement. Subject areas include field applications of leveling, distance measurements, angular measurements, volume measurements, control surveys, and location of physical features using conventional surveying instruments.
Corequisites: GEO A155.

GEO A156 Geospatial Measurement I **2 Credits**
Introduces fundamentals of geospatial plane measurements. Subject areas include theory of errors in observations, leveling theory, distance measurements, angular measurements, traversing, traverse adjustments, contouring, fundamentals of mapping, and typical instruments used for measurement.
Prerequisites: MATH A151 with a minimum grade of C or concurrent enrollment or MATH A152 with a minimum grade of C or concurrent enrollment or MATH A155 with a minimum grade of C or concurrent enrollment or MATH A211 with a minimum grade of C or concurrent enrollment or MATH A212 with a minimum grade of C or concurrent enrollment or MATH A221 with a minimum grade of C or concurrent enrollment or MATH A251 with a minimum grade of C or concurrent enrollment or MATH A251F with a minimum grade of C or concurrent enrollment or MATH A252 with a minimum grade of C or concurrent enrollment or MATH A252F with a minimum grade of C or concurrent enrollment or MATH A253 with a minimum grade of C or concurrent enrollment.

GEO A156L Geospatial Measurement I Laboratory **1 Credit**
Laboratory skills in geospatial plane measurement. Subject areas include field applications of leveling, distance measurements, angular measurements, traversing, traverse adjustments, and location of physical features using conventional surveying instruments.
Prerequisites: GEO A156 with a minimum grade of C or concurrent enrollment.

GEO A157 Computer-Aided Drafting for Surveyors **3 Credits**
Introduction to the knowledge and skills necessary to create maps and plats using computer-aided drafting. Topics of study include basic drafting principles, drawing setup and scale, drawing commands, digital terrain modeling, and mapping standards and accuracies.
Prerequisites: GEO A156 with a minimum grade of C.

GEO A181 Construction Surveying **1 Credit**
Covers basic construction surveying procedures including staking for roads, buildings and excavations, use of maps, construction plans, datums and co-ordinate systems, and machine control systems.
Special Note: The course is predominantly field work.
Prerequisites: MATH A105 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A211 with a minimum grade of C or MATH A212 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C.

GEO A246 Geomatics Computations II **3 Credits**
Covers computational methods and computer programming techniques for geomatics.
Prerequisites: GEO A146 with a minimum grade of C and (MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C).

GEO A256 Engineering Surveying **2 Credits**
Covers the theory of engineering surveying including, construction applications, setting out of structures, route surveying, geometric design of horizontal and vertical curves, earthwork computations, utility location and hydrography.
Prerequisites: GEO A266 with a minimum grade of C or concurrent enrollment.

GEO A256L Engineering Surveying Laboratory **1 Credit**
Laboratory skills in engineering surveying, including construction applications, setting out of structures, route surveying, geometric design of horizontal and vertical curves, earthwork computations, utility location and hydrography.
Prerequisites: GEO A256 with a minimum grade of C or concurrent enrollment and GEO A266 with a minimum grade of C or concurrent enrollment and GEO A266L with a minimum grade of C or concurrent enrollment.

GEO A266 Geospatial Measurement II **2 Credits**
Examines advanced geospatial measurement techniques using conventional survey instruments and GPS. Theoretical concepts of control surveys, leveling, adjustment of survey data and data collection is provided through topographic surveying projects. Introduces field-to-finish mapping and processing of electronic field records.
Prerequisites: GEO A156 with a minimum grade of C and GEO A156L with a minimum grade of C.

GEO A266L Geospatial Measurement II Laboratory **1 Credit**
Laboratory skills in advanced geospatial measurement techniques using conventional survey instruments and GPS. Practical application of control surveys, leveling, adjustment of survey data and data collection is provided through topographic surveying projects. Examines field techniques used in field-to-finish mapping and processing of electronic field records.
Prerequisites: GEO A266 with a minimum grade of C or concurrent enrollment.

GEO A267 Boundary Law I **3 Credits**
Presents elements of boundary control and legal principles. Course topics include boundary history, ownership, rights, interests, title, transfer, description of real property, the rectangular system, sequential conveyances, simultaneously created boundaries and water boundary elements.
Prerequisites: WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C or WRTG A2W with a minimum grade of C and GEO A156 with a minimum grade of C.

GEO A346 Advanced Geomatics Computations **3 Credits**
Covers advanced applied mathematics in Geomatics, including vector and matrix operations, numeric solutions to systems of equations, coordinate transformations, function approximation, partial differentiation, and iterative root finding problems.
Prerequisites: GEO A146 with a minimum grade of C and (MATH A251 with a minimum grade of C or concurrent enrollment or MATH A251F with a minimum grade of C or concurrent enrollment or MATH A252 with a minimum grade of C or concurrent enrollment or MATH A252F with a minimum grade of C or concurrent enrollment or MATH A253 with a minimum grade of C or concurrent enrollment).

GEO A357 Photogrammetry **3 Credits**
Introduces principles of optics, image formation, and lens distortions. Introduces geometry of photographs acquired by terrestrial and aerial cameras. Outlines basic geometric and mathematical concepts used in analytical photogrammetry. Illustrates methods of image acquisition, stereoscopic measurements, and 3D model reconstruction in terrestrial and aerial photogrammetry. Develops the student's ability to use photogrammetric techniques within the framework of Geomatics, including the use of industry-standard photogrammetric software.
Prerequisites: GEO A346 with a minimum grade of C and GIS A351 with a minimum grade of C.

GEO A359 Geodesy and Map Projections **3 Credits**
Introduces geometrical and physical geodesy. Examines computations on the ellipsoid, elements of datums, map projections and state plane coordinate systems.
Prerequisites: GEO A346 with a minimum grade of C.

GEO A364 Spatial Data Adjustments **3 Credits**
Examines fundamental concepts of statistical error analysis with applications to surveying measurements. Covers fundamental properties of data sets, including measures of central tendency, measures of data variation, sampling distribution theory, statistical confidence intervals and testing, and propagation of variance. Covers theory and applications of least squares adjustment.
Prerequisites: GEO A346 with a minimum grade of C and STAT A253 with a minimum grade of C.

GEO A366 Spatial Data Adjustments II **3 Credits**
Presents the theory and mechanics of least squares adjustment using the traditional surveying observations of distances, angles, azimuths and elevation differences. Covers post-adjustment analysis through the use of various statistical tests and error ellipse computation and analysis. Examines least squares adjustment and analysis of differential leveling, triangulations, trilateration, traverse and network observations.
Prerequisites: GEO A364 with a minimum grade of C.

GEO A369 Cadastral Surveys **1 Credit**
Discusses the United States Public Land Survey System with emphasis on Alaska: sectionalized land subdivision, corner restoration, resurveys, evidence, sources for legal research, and current BLM procedures and regulations.
Prerequisites: GEO A267 with a minimum grade of C.

GEO A410 High-Density Surveying **3 Credits**
Introduces principles of high-density surveying, outlines theory and practice of collection and processing of high-density spatial data (point clouds). Covers the use of automated photogrammetric and structure from motion (SFM) techniques, airborne LiDAR, terrestrial and mobile laser scanners.
Prerequisites: GEO A357 with a minimum grade of C and GEO A364 with a minimum grade of C.

GEO A420 Point Cloud Analysis **3 Credits**
Introduces principles of point cloud data analysis for geospatial applications. Outlines theory and practice of processing of point clouds generated from automated photogrammetric and structure from motion (SFM) techniques, airborne LiDAR, terrestrial and mobile laser scanners. Covers theoretical and practical aspects of high-density spatial data analysis including classification of LiDAR data, point cloud fusion, surface generation, shape fitting, and feature extraction.
Prerequisites: GEO A410 with a minimum grade of C.

GEO A433 Hydrographic Surveying **3 Credits**
Provides students with knowledge of and skills to apply physical principles, instrumentation, data analysis methods, and visualization techniques associated with hydrographic surveying, chart publication, and related marine measurement practices of government and industry.
Prerequisites: GEO A266 with a minimum grade of C or concurrent enrollment.

GEO A457 Boundary Law II **3 Credits**
Covers Alaskan survey history and case law, Alaska statutes and administrative code, writing legal descriptions, and the standards of practice for surveying in Alaska.
Prerequisites: GEO A369 with a minimum grade of C.

GEO A460 Geomatics Capstone Project **3 Credits**
Utilizes techniques of research, design, data compilation, analysis and mapping learned throughout the geomatics curriculum to complete a geomatics capstone project. Addresses professional standards and ethical concerns for geomatics professionals.
Registration Restrictions: Senior standing and admission to the Bachelor of Science in Geomatics
Attributes: UAA Integrative Capstone GER.

GEO A466 Geopositioning **2 Credits**
Introduces the theory of global navigation satellite systems (GNSS), primarily the global positioning system (GPS). Examines GNSS methodologies, solution types, biases, quality assessment, analysis and adjustment.
Prerequisites: GEO A359 with a minimum grade of C and GEO A364 with a minimum grade of C.

GEO A466L Geopositioning Laboratory **1 Credit**
Laboratory practice of global navigation satellite systems (GNSS), primarily the global positioning system (GPS). Examines data collection, quality assessment, analysis and adjustment.
Prerequisites: GEO A466 with a minimum grade of C or concurrent enrollment.

GEO A490 Selected Advanced Topics in Geomatics **1-3 Credits**
Explores advanced theoretical or practical concepts in geomatics. Specific course content is determined according to student needs, developments in technology or licensing requirements.
Special Note: May be repeated for a maximum of 12 credits with a change of subtitle.
Prerequisites: GEO A146 with a minimum grade of C and GIS A201 with a minimum grade of C.

GEO A698 Project **3 Credits**
Arranges an individualized project in an area of geomatics as related to the profession. The graduate committee must approve the project topic.
Special Note: May be repeated once for credit.
Registration Restrictions: Graduate standing and instructor approval

GEO A699 Thesis **1-6 Credits**
Engages student in individual study of an advanced geomatics problem resulting in a thesis.
Special Note: May be repeated for a maximum of 6 credits.
Registration Restrictions: Graduate standing and instructor approval

German (GER)

Courses

GER A101 Elementary German I **4 Credits**
Introductory course for students with no previous knowledge of the German language. Develops listening, speaking, reading, and writing skills in German for effective communication at the elementary level. Students gain understanding of basic cross-cultural perspectives. Course conducted in German.
Attributes: UAA Humanities GER.

GER A102 Elementary German II **4 Credits**
Continuation of introductory course. Further develops elementary listening, speaking, reading, and writing skills in German for effective communication. Enhances appreciation of cross-cultural perspectives. Course conducted in German.
Prerequisites: GER A101 with a minimum grade of D.
Attributes: UAA Humanities GER.

GER A201 Intermediate German I **4 Credits**
Intermediate course for students with basic knowledge of German. Enhances listening, speaking, reading, and writing skills for effective communication at the intermediate level. Students critically examine diverse cultural perspectives. Course conducted in German.
Prerequisites: GER A102 with a minimum grade of D.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER.

GER A202 Intermediate German II **4 Credits**
Continuation of first semester in intermediate German. Further develops listening, speaking, reading, and writing proficiency for effective communication and in preparation for advanced study of German. Students interpret diverse cultural perspectives. Course conducted in German.
Prerequisites: GER A201 with a minimum grade of D.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER.

GER A301 Advanced German I **4 Credits**
Advanced German course in refining listening, speaking, reading, writing, and analytical skills for effective interaction in communicatively complex situations. Students critically analyze diverse cultural topics.
Special Note: Course conducted in German.
Registration Restrictions: If prerequisite not met, students can gain entrance to course with departmental approval.
Prerequisites: GER A202 with a minimum grade of C.

GER A302 Advanced German II **4 Credits**
Continuation of first semester in advanced German. Further refines listening, speaking, reading, writing, and analytical skills for effective interaction in communicatively complex situations. Students critically analyze diverse cultural topics.
Special Note: Course conducted in German.
Registration Restrictions: If prerequisite not met, students can gain entrance to course with departmental approval.
Prerequisites: GER A301 with a minimum grade of C.

GER A310 Selected Topics: Literary Trends and Traditions **3 Credits**
Focuses on diverse literary traditions of multiple German-speaking communities. Critical analysis through a variety of disciplinary methodologies (e.g. historical, cultural, artistic); terminology also explored and developed. Enhances German language skills in writing, reading, speaking, listening and cultural literacy.
Special Note: May be repeated for credit with a change of subtitle. Course conducted in German.
Prerequisites: GER A302 with a minimum grade of C.

GER A490A Topics in Literatures and Cultures of the German-Speaking Countries **3 Credits**
Focuses on the intensive study of authors, literary movements, periods and genres in their historical and cultural contexts. Enhances German language skills in reading, listening, writing, speaking, and cultural literacy.
Special Note: May be repeated four times for credit with change of subtitle. Course conducted in German.
Prerequisites: GER A302 with a minimum grade of C.

Health Care Assisting (HCA)

Courses

HCA A105 Certified Nurse Aide **6-8 Credits**
Prepares the student to be an Alaska State Certified Nurse Aide. Includes CPR training, medical terminology, basic anatomy, first aid and skills labs. Students receive on-site clinical training at local health care facilities.
Registration Restrictions: English placement: WRTG A090 or higher; Math placement: MATH A055 or higher.

Health (HLTH)

Courses

HLTH A101 Introduction to Health Occupations **3 Credits**
Introduces basic knowledge and skills of health care occupations including principles of infection control, medical office procedures, general patient care, professionalism, cardiopulmonary resuscitation and first aid. Provides laboratory component for development of associated clinical skills. Includes introduction to health care facilities and careers in health care.

HLTH A111 Becoming a Healthcare Professional **2 Credits**
Introduces key topics in healthcare including anatomy and physiology, the components and functions of various body systems, and basic health assessment skills used by healthcare professionals. Explores careers within the healthcare field in the following areas: medical, nursing, therapies and allied health.

HLTH A112 Becoming a Behavioral Health Professional **2 Credits**
Introduces key topics in behavioral health including mental health, trauma, substance abuse, suicide, resiliency, and therapeutic methods. Introduces skills of high functioning teams. Explores careers within the field of behavioral health and social services. Provides opportunity to earn appropriate Mental Health First Aid certification.

HLTH A113 Professionalism in Healthcare **2 Credits**
Focuses on development of professional employability skills in health care. Emphasizes cultural competency to provide high quality patient care. Provides job shadowing opportunities.

HLTH A151 Breaking Trail on Your Health and Social Services Career **3 Credits**
Introduces students to the roles, ethics, and responsibilities of health and social service professionals. Explores factors influencing health behaviors and health outcomes, while considering careers in health-related fields. Emphasizes peer collaboration, academic success strategies, and professional development. Reflects on how professionals can address health disparities and improve outcomes through interprofessional practice.

Health Science (HS)

Courses

HS A210 Introduction to Environmental Health **3 Credits**
Introduces the field of environmental health, including environmental epidemiology, policy, justice and the health effects of global climate change. Reviews diseases and injuries related to environmental conditions, occupational health and associated public health applications.

HS A220 Introduction to Population Health Sciences **3 Credits**
Introduces students to the public health profession and population health approach in the United States and Alaska. Examines principles of population health, the framework for thinking about underlying problems that lead to death or disability and explores public health institutions and health-care systems.

HS A230 Introduction to Global Health **3 Credits**
Introduces the field of global health with a focus on exploring the links between health, economic and social factors involved in development. Reviews socioeconomic and environmental determinants of health, along with disparities in the global burden of disease, global health priorities, efforts and initiatives.

HS A305 Public Health for an Aging Society **3 Credits**
An overview of issues related to public health and aging, including demography, epidemiology, theories of aging, the implications of chronic illness and disability for public health, health promotion for older adults, and how older adulthood is viewed in society today.

HS A320 Death, Dying, and End-of-Life Care **3 Credits**
Surveys the psycho-sociocultural and biomedical aspects of death, dying, and practical implications for end-of-life care planning, including in-depth exploration of grief and preparation for death, end-of-life care options, care and treatment of terminally ill patients, assisted euthanasia, and legal and policy implications for the future healthcare professional.
Registration Restrictions: Instructor permission may substitute for listed prerequisites.
Prerequisites: PSY A150 with a minimum grade of C or HS A220 with a minimum grade of C.

HS A326 Introduction to Epidemiology **3 Credits**
Introduces basic principles and methods of epidemiology, with emphasis on critical thinking, analytic skills, and application to population health practice and research. Includes outcome measures, methods, interpretation of analysis, surveillance, and sources of data. Provides tools for critically evaluating literature and epidemiological applications for science-based health planning and service disciplines.
Prerequisites: HS A220 with a minimum grade of C and (PSY A260 with a minimum grade of C or STAT A200 with a minimum grade of C or STAT A253 with a minimum grade of C).

HS A345 Planning and Management of Health Programs **3 Credits**
Explores the major components of health promotion program planning, conducting needs assessments, and developing appropriate interventions including an introduction to managing health promotion programs.
Prerequisites: HS A220 with a minimum grade of C and (WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C).

HS A370 Social and Cultural Determinants of Health **3 Credits**
Provides a historical and contemporary overview of selected social, political, and economic factors that influence the provision of health and healthcare in America. Focuses on the relationship between health care and race, sex, gender, social stratification, and social location. Lays out brief comparisons of international alternatives for-profit and not-for-profit national health care systems.
Prerequisites: HS A220 with a minimum grade of C or HS A230 with a minimum grade of C or SOC A101 with a minimum grade of C.

HS A420 Program Evaluation **3 Credits**
Describes the theories and practices of program evaluation for applied health and social services settings.
Registration Restrictions: Junior or senior standing and department approval.
Prerequisites: HS A326 with a minimum grade of C.

HS A433 Health Education: Theory and Practice **3 Credits**
Provides the theoretical foundation and methods for health education and health promotion. Develops students' abilities to plan, implement, and facilitate health promotion activities and health education lessons.
Prerequisites: HS A345 with a minimum grade of C or NS A333 with a minimum grade of C or KIN A343 with a minimum grade of C.

HS A485 Professional Preparation in Health Sciences **3 Credits**
Provides a foundation to help students prepare for practicums and careers including exploring professional competencies and goals, applying practical human relations skills and professional behaviors.
Special Note: Students will engage in 8 hours of field work.
Registration Restrictions: Admission to the College of Health, admission to the Bachelor of Science in Health Sciences, and junior or senior standing
Prerequisites: HS A345 with a minimum grade of C and HS A433 with a minimum grade of C or concurrent enrollment.

HS A490 Selected Topics in the Health Sciences **1-4 Credits**
Examines emerging, current, or other special topics in the health sciences.
Special Note: May be repeated for a maximum of 9 credits with a change of subtitle.
Registration Restrictions: Junior or senior standing
May Be Stacked With: HS A690
Prerequisites: WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C or WRTG A2W with a minimum grade of C.

HS A492 Senior Seminar: Contemporary Health Policy **3 Credits**
Focuses on contemporary health policy issues with an emphasis on population-level public policies and health equity.
Registration Restrictions: Senior standing and completion of GER Tier 1 (basic college-level skills) courses
Prerequisites: HS A220 with a minimum grade of C.
Attributes: UAA Integrative Capstone GER.

HS A495 Health Sciences Practicum **3 Credits**
Integrates acquired theoretical knowledge with practical application and applies health science competencies in a supervised community health practice setting. Designed to enhance students' professional experience through a minimum of 120 hours of work with a community organization.
Special Note: May be repeated once for a total of 6 credits.
Registration Restrictions: Senior standing and admission to the College of Health and the Bachelor of Science in Health Sciences
Prerequisites: HS A485 with a minimum grade of C.

HS A498 Senior Project in Health Sciences **3 Credits**
Under the supervision of a faculty member, students will either a) assist with carrying out a research project initiated by a faculty member or b) design and carry out an empirical research project or other approved health sciences project.
Special Note: May be repeated once for a total of 6 credits.
Registration Restrictions: Senior standing and approval by the faculty member acting as project advisor
Prerequisites: HS A220 with a minimum grade of C and HS A345 with a minimum grade of C and (HS A420 with a minimum grade of C or concurrent enrollment or HUMS A420 with a minimum grade of C or concurrent enrollment).

HS A499 Senior Thesis in Health Sciences **3 Credits**
Under faculty mentorship, students will be guided through the thesis writing process for undergraduate research that meets professional publication standards. Students will orally defend the thesis through a presentation or poster presentation.
Registration Restrictions: Senior standing and approval of the faculty member acting as thesis advisor
Prerequisites: HS A498 with a minimum grade of C or PSY A261 with a minimum grade of C or SOC A361 with a minimum grade of C.

HS A605 Public Health and Society **3 Credits**
Incorporates behavioral and social science concepts in analyzing a variety of public health issues nationally, in Alaska and the circumpolar north. Presents how socioeconomic status, culture, race/ethnicity, age, and gender relate to health and disease outcomes and quality of life. Provides knowledge on health promotion and disease prevention interventions.
Registration Restrictions: Admission to MPH program or faculty permission.

HS A610 Environmental and Occupational Health **3 Credits**
Provides an in-depth understanding of environmental factors, including biological, physical, chemical and occupational factors that affect the health of a community. Combines an overall ecological concern with specific elements related to individual and community health, emphasizing the interrelatedness of the two.
Registration Restrictions: Admission to MPH program or faculty permission.

HS A615 Health Services Administration **3 Credits**
Provides students with knowledge and tools to understand the planning, organization, administration, management, evaluation and policies of public health programs in the U.S. and particularly Alaska. Applies an epidemiological model for health services delivery, strategic planning, health care quality management, performance standards, interagency cooperation, human resource management and ethics.
Registration Restrictions: Admission to MPH program or faculty permission.

HS A624 Circumpolar Health Issues **3 Credits**
Provides a critical analysis of key circumpolar health issues, with a particular emphasis on the application of current research to professional practice, programs and policy. Aims to develop and demonstrate, among the students, a level of professionally sophisticated critical analysis skills, problem-solving abilities, and expertise in public health issues most relevant to Alaska and other circumpolar regions. Provides opportunity for students to explore these issues within an Alaskan context in their assignments.
Registration Restrictions: Graduate standing and admission to the Master of Public Health, or instructor approval

HS A625 Biostatistics for Health Professionals **3 Credits**
Reviews principles of statistical reasoning and quantitative skills for analyzing health data. Illustrates descriptive and inferential statistics. Addresses multivariate parametric and non-parametric statistical tests. Compares methodological techniques and the choice of appropriate statistical methods to answer health research questions. Emphasizes interpretation of statistical results in public health research and practice.

Registration Restrictions: Graduate standing or instructor approval

HS A626 Principles of Epidemiology **3 Credits**
Presents the study of patterns of disease and injury in human populations and the application of this study to the control of health problems. Introduces students to the basic principles and study designs of epidemiology. Covers the application of epidemiologic methods to the understanding of the occurrence and control of conditions such as infectious and chronic diseases, psychological and behavioral disorders, community and environmental health hazards, accidents, and genetic conditions.
Registration Restrictions: Graduate standing or instructor permission.

HS A628 Program Evaluation **3 Credits**
Explores the principles and methods of conducting evaluation of health-related programs. Covers conducting community needs assessments, program evaluation development, evaluation types and designs, politics and ethics of conducting program evaluations, and how to effectively communicate the evaluation process and disseminate findings in meaningful and actionable ways.
Registration Restrictions: Graduate standing and admission to the Master of Public Health or the Master of Social Work, or instructor approval. Master of Social Work students must have successfully completed the generalist curriculum
Crosslisted With: SWK A628

HS A629 Public Health Research Tools and Methods **4 Credits**
Introduces basic principles and methods of health-related research from its conception to analysis and evaluation. Provides an overview of quantitative and qualitative research methods and issues related to their reliability and validity. Provides hands-on training of quantitative and/or qualitative analytical software and completion of CITI Human Subjects Research Education course in lab.
Registration Restrictions: Graduate standing and admission to the Master of Public Health, or instructor approval
Prerequisites: HS A625 with a minimum grade of B and HS A626 with a minimum grade of B.

HS A630 Public Health Emergencies and Disasters **3 Credits**
Explores public health issues concerning natural and human-generated disasters and emergencies that occur in Alaska, the U.S., and different parts of the world. Covers topics on geophysical and weather-related problems, infectious diseases, war, and related concerns. Addresses prevention, mitigation and public health interventions, which include planning, preparedness, response, and recovery strategies, as well as socio-economic, political, legal and ethical challenges.
Registration Restrictions: Admission to MPH program or faculty permission.

HS A635 Geographic Information Systems for One Health **3 Credits**
Develops fundamentals of spatial analysis necessary to address One Health problems. Introduces fundamental concepts, conventions and capabilities of geographic information systems (GIS) from a broad and practical perspective. Imbeds learning how to use GIS software in the context of carrying out projects for mapping, visualizing, and analyzing human, animal and plant health data.
Special Note: Students will receive a free software license for GIS software. Students must have access to a computer capable of running ArcGIS software.
Registration Restrictions: Graduate standing or instructor permission.

HS A640 Health Communication in the Popular Media **3 Credits**
Discusses theory, research, and practice related to how popular media influences health and how health professionals can use or influence popular media to make populations who use it healthier. Students apply what they learned by developing a health communication project.
Registration Restrictions: Graduate standing

HS A648 Motivational Interviewing **3 Credits**
Motivational Interviewing (MI) is an empirically-supported, person-centered, goal-oriented approach for facilitating change by exploring & resolving ambivalence. With background lectures on the theoretical and empirical bases of MI, class sessions emphasize demonstration and practice of MI skills and strategies for diverse behavioral applications (e.g., addictions, health promotion, chronic disease management).
Registration Restrictions: Graduate standing
Crosslisted With: PSY A648 and SWK A648

HS A655 Global Health and Development **3 Credits**
Overview of global health issues and determinants of health, primarily in lesser developed countries. Covers maternal and child health, reproductive health, nutrition, infectious diseases, and environmental health issues. Explores intervention strategies and the impact of social, cultural, political, and economic factors.
Registration Restrictions: Graduate standing and instructor approval

HS A683 Innovative Practices in Telehealth **3 Credits**
Provides an overview of telehealth with an emphasis on telebehavioral health in Alaska. Includes topics on the history of telehealth and current legal, technical and logistical considerations to prepare leaders in the expanding field of telehealth. Includes hands-on experience with telehealth technology and clinical exercises.
Registration Restrictions: Graduate standing or instructor permission
Crosslisted With: SWK A683

HS A690 Selected Topics in the Health Sciences **1-4 Credits**
Examines emerging, current, or other special topics in the health sciences.
Special Note: May be repeated for a maximum of 12 credits with a change of subtitle.
Registration Restrictions: Graduate standing
May Be Stacked With: HS A490

HS A695 Applied Practice Experience **1-3 Credits**
Focuses on the development and implementation of a student-initiated practicum with a public-health-related community partner. Requires students to demonstrate their advanced scholarship, professional competence, and public health skills in an applied setting.
Special Note: May be repeated for a maximum of 3 credits.
Registration Restrictions: Graduate standing, admission to the College of Health, admission to the Master of Public Health (MPH) in Public Health Practice or the Graduate Certificate in Public Health, a minimum GPA of 3.00 in 600-level HS courses, completion of at least 28 credits towards the MPH or 12 credits towards the Graduate Certificate in Public Health, and advisor approval
Prerequisites: HS A628 with a minimum grade of C or SWK A628 with a minimum grade of C.

HS A696 Integrative Learning Experience **2 Credits**
Requires students to complete their Master of Public Health program ePortfolio; complete a written capstone project that integrates both foundational public health and generalist track-specific competencies identified by the students, in consultation with their academic advisor; and orally present highlights of their Integrative Learning Experience capstone project in a group setting.
Registration Restrictions: Graduate standing, admission to the College of Health, admission to the Master of Public Health (MPH) in Public Health Practice, completion of at least 37 credits towards the MPH, a minimum GPA of 3.00 in the MPH, and advisor approval
Prerequisites: HS A605 with a minimum grade of C and HS A610 with a minimum grade of C and HS A615 with a minimum grade of C and HS A624 with a minimum grade of C and (HS A628 with a minimum grade of C or SWK A628 with a minimum grade of C) and HS A629 with a minimum grade of C and HS A630 with a minimum grade of C.

HS A699 MPH Practicum-Thesis **1-5 Credits**
Focuses on the development and implementation of a student-initiated practicum and thesis with a public-health-related community partner and thesis committee for the culminating experience for the MPH Program. Guides and provides resources as a basis for the thesis. Requires students to demonstrate their advanced scholarship, professional competence and skills through proposal and report writing, subject matter expertise of their thesis, and public presentation.
Registration Restrictions: Graduate standing and admission to the Master of Public Health, academic advisor approval and an overall minimum GPA of 3.00 in the MPH program

History (HIST)

Courses

HIST A101 Western Civilization Before 1650 **3 Credits**
Surveys major developments in Western Civilization from its origins in the ancient Near East to 1650. Emphasizes key social, political, economic, intellectual and cultural characteristics and developments.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER.

HIST A102 Europe in the Modern World **3 Credits**
Surveys major developments in Europe and the world from 1650 to the present. Emphasizes key social, political, economic, intellectual and cultural characteristics and developments.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER.

HIST A104 History Matters! **3 Credits**
Introduces the practice of history as a discipline by examination of the historical background, processes and antecedents of events affecting our own day.
Attributes: UAA Humanities GER.

HIST A121 The Making of East Asian Civilization **3 Credits**
Surveys the major historical, cultural and social developments of Chinese, Japanese and Korean civilization from their prehistoric origins through approximately 1600 (the decline of Ming China, the unification of Japan under the Tokugawa and the end of the Japanese invasions of Korea).
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER.

HIST A122 East Asia in the Modern World **3 Credits**
Surveys the major historical, cultural and social developments in East Asia from approximately 1600 (the rise of Qing China, the unification of Japan under the Tokugawa and the revival of the Yi Dynasty in Korea) through the 21st century.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER.

HIST A131 History of the United States I **3 Credits**
Presents a chronological overview of the history of North America from the pre-colonial era through the U.S. Civil War. Examines social, cultural, political, and economic forces that have shaped the country during the period.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER.

HIST A132 History of the United States II **3 Credits**
Presents a chronological overview of United States history from Reconstruction to the present. Examines social, cultural, political and economic forces that have shaped the country during the period.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER.

HIST A226 Medieval History **3 Credits**
Surveys the origins and development of western civilization from the end of the Roman Empire to the beginnings of the Renaissance. Emphasis on interrelationships of political, social, economic, cultural and intellectual movements in various cultures.
Registration Restrictions: HIST A101 recommended

HIST A237 American Civil War **3 Credits**
Study of North-South differences causing American Civil War, war itself in considerable detail, and legacy of that war for today.

HIST A244 Studies in Film History **3 Credits**
Selected topics in motion picture history. Ranges from genre studies (musicals, comedies, science fiction) to special areas of film history (animation, special effects, major stars and studios, significant directors). Subtitle varies.
Special Note: May be repeated once for credit with a change of subtitle.

HIST A306 The Roman Empire **3 Credits**
Surveys the Roman Empire from the assassination of Julius Caesar to the "fall" of the Empire in 476 CE. Its principal focus is upon the political and social history of the Empire.
Prerequisites: HIST A101 with a minimum grade of C.

HIST A308 Europe in the High Middle Ages **3 Credits**
Analyzes key issues in Europe from roughly 1000-1400, including feudal and manorial structures, religious life, intellectual and economic developments, and political and social changes. Emphasizes the impact of the Crusades, the Twelfth Century Renaissance, religious minorities, dissent, and rural and urban life.
Prerequisites: HIST A101 with a minimum grade of C or HIST A102 with a minimum grade of C or HIST A121 with a minimum grade of C or HIST A122 with a minimum grade of C or HIST A132 with a minimum grade of C.

HIST A310 Renaissance/Reformation Europe **3 Credits**
Examines the key political, social, economic and cultural developments in Europe from 1300-1600. Emphasizes medieval legacies; Renaissance art, power and family life; European encounters and conquests; the emergence of global economies; religious reform and revolution; and daily life for common people.
Registration Restrictions: Sophomore, junior or senior standing
Prerequisites: HIST A101 with a minimum grade of C or HIST A102 with a minimum grade of C or HIST A121 with a minimum grade of C or HIST A122 with a minimum grade of C or HIST A131 with a minimum grade of C or HIST A132 with a minimum grade of C.

HIST A312 Princes, Pirates, and Puritans: Europe 1600-1789 **3 Credits**
Examines political developments across Europe from 1600-1789, with special attention to court culture, warfare and revolutions, as well as colonial expansion and competition. Traces developments in piracy, science, commerce, agriculture, media and art, and their impacts on society. Analyzes religious conflict, accommodation and toleration.
Prerequisites: HIST A101 with a minimum grade of C or HIST A102 with a minimum grade of C or HIST A121 with a minimum grade of C or HIST A122 with a minimum grade of C or HIST A131 with a minimum grade of C or HIST A132 with a minimum grade of C.

HIST A314 Nineteenth Century Europe **3 Credits**
Examines the key political, social, economic, intellectual and cultural developments in 19th century Europe. Special emphasis will be placed on the French and Napoleonic revolution; restoration and reaction; industrialization and urbanization; romanticism, liberalism and socialism; nationalism and national unification; imperialism; fin de siecle culture; gender and identity; and daily life.
Prerequisites: (HIST A101 with a minimum grade of C or HIST A102 with a minimum grade of C or HIST A131 with a minimum grade of C or HIST A132 with a minimum grade of C) and (WRTG A111 with a minimum grade of C or EVIDENCE-BASED READ/WRIT SCORE with a score of 610 or Enhanced ACT English with a score of 30).

HIST A316 Twentieth Century Europe **3 Credits**
Examines the key political, social, economic, intellectual and cultural developments in 20th century Europe. Special emphasis will be placed on key themes such as war, revolution, fascism, communism, democracy, modernization, decolonization and globalism, and how both elites and ordinary people responded to a changing world.
Prerequisites: HIST A101 with a minimum grade of C or HIST A102 with a minimum grade of C or HIST A131 with a minimum grade of C or HIST A132 with a minimum grade of C.

HIST A321 Modern China **3 Credits**
Chinese history from the middle of the Qing (Manchu) Dynasty, about 1800, through the present. Designed to provide a broad understanding of the historical, cultural, and social development of China as it made the transition to a modern state.
Prerequisites: HIST A101 with a minimum grade of C or HIST A102 with a minimum grade of C or HIST A121 with a minimum grade of C or HIST A122 with a minimum grade of C or HIST A131 with a minimum grade of C or HIST A132 with a minimum grade of C.

HIST A322 Modern Japan **3 Credits**
Japanese history from the last decades of the Tokugawa Shogunate, about 1800, through the present. Designed to provide a broad understanding of the historical, political, economic, cultural, and social development of Japan as it made the transition to a modern state and the consequences of pursuing modern statehood.
Prerequisites: HIST A101 with a minimum grade of C or HIST A102 with a minimum grade of C or HIST A121 with a minimum grade of C or HIST A122 with a minimum grade of C or HIST A131 with a minimum grade of C or HIST A132 with a minimum grade of C.

HIST A325 Northeast Asia in 21st Century **3 Credits**
An interdisciplinary examination and analysis of Northeast Asia covering China, the Koreas, and Japan designed to provide students with the means to understand how the societies of this region have developed separate and distinct identities despite their common cultural and philosophic roots.
Registration Restrictions: Completion of GER Tier 1 (basic college-level skills) courses.
Crosslisted With: INTL A325 and PS A325
Attributes: UAA Integrative Capstone GER, UAA Intercultural Fluency GER.

HIST A330 Russia in East Asia **3 Credits**
Examines the relationships between Russia and its neighbors in East Asia and the Pacific. Among the major themes to be explored are the impact of the Mongol conquest; contact and colonization in the "borderlands"; historical debates on the importance of East Asia and the Pacific to Russia; and the articulation and pursuit of Russian geo-political interests in the region.
Registration Restrictions: Junior or senior standing
Prerequisites: HIST A102 with a minimum grade of C or HIST A121 with a minimum grade of C.
Attributes: UAA Integrative Capstone GER.

HIST A336 Latin America to 1800 **3 Credits**
Analyzes pre-Columbian cultures, the impact of the arrival of Europeans on Indigenous societies in Mesoamerica and South America, and the societies that emerged out of conquest and colonization. Emphasizes changes and continuities in labor, economy, religion, culture, society, and daily life up to 1800.
Prerequisites: HIST A101 with a minimum grade of C or HIST A102 with a minimum grade of C or HIST A121 with a minimum grade of C or HIST A122 with a minimum grade of C or HIST A131 with a minimum grade of C or HIST A132 with a minimum grade of C.

HIST A338 Modern Latin America: Revolutions, Dictatorships, and Democracy **3 Credits**
Analyzes Latin American history from the Independence movements of the nineteenth century to the present, including the formation of states, the development of national identities, and Latin America's connection to growing global economies. Emphasizes post-Independence political and social conflicts, social reforms and revolutions, the impact of modernization and industrialization, and cultural and artistic developments.
Prerequisites: HIST A101 with a minimum grade of C or HIST A102 with a minimum grade of C or HIST A121 with a minimum grade of C or HIST A122 with a minimum grade of C or HIST A131 with a minimum grade of C or HIST A132 with a minimum grade of C.

HIST A341 History of Alaska **3 Credits**
Examines Alaska and its relationship to America and the world, including Alaska geography, Alaska Native anthropology, and a detailed chronological history of the 49th state. Emphasizes the themes of the persistence of Alaska as a global crossroads, the enduring contribution of Alaska Natives, and the ongoing tensions between those inside and outside Alaska about what the state could and should be.
Registration Restrictions: Junior or senior standing and completion of Tier 1 (basic college-level skills) GER courses
Prerequisites: HIST A101 with a minimum grade of C or HIST A102 with a minimum grade of C or HIST A121 with a minimum grade of C or HIST A122 with a minimum grade of C or HIST A131 with a minimum grade of C or HIST A132 with a minimum grade of C.
Attributes: UAA Integrative Capstone GER, UAA Intercultural Fluency GER, UAA Alaska Native-Themed GER.

HIST A346 History of Native Peoples of United States and Canada **3 Credits**
Examines the history of Indigenous peoples of the U.S. and Canada from pre-contact up through the 21st century, with an emphasis on Native voices and perspectives.
Prerequisites: HIST A131 with a minimum grade of C or HIST A132 with a minimum grade of C.
Attributes: UAA Alaska Native-Themed GER.

HIST A355 Major Themes in US History **3 Credits**
Examines major themes that have shaped and impacted American history and contemporary society. Such themes may include, but are not limited to, democracy, global relations, and multiculturalism. Course emphasizes reading and analysis of primary sources to discern and evaluate the human experience.
Prerequisites: HIST A131 with a minimum grade of D and HIST A132 with a minimum grade of D.

HIST A377 Historiography: The Uses and Abuses of History **3 Credits**
Explores how historians "do" history by examining the various historical methods, theories, and approaches used to interpret and to understand the human past and its significance. Investigates the relationships between experiencing, remembering, and reconstructing the past.
Registration Restrictions: Junior or senior standing
Prerequisites: (HIST A101 with a minimum grade of C and HIST A102 with a minimum grade of C) or (HIST A131 with a minimum grade of C and HIST A132 with a minimum grade of C).

HIST A390 Themes in World History **3 Credits**
A broadly comparative and interdisciplinary analysis of fundamental or universal aspects of the human experience from prehistory to the present, focused on a selected theme.
Special Note: May be repeated twice for credit with a change of subtitle.
Registration Restrictions: Junior or senior standing and completion of Tier 1 GER courses
Prerequisites: HIST A101 with a minimum grade of C or HIST A102 with a minimum grade of C or HIST A121 with a minimum grade of C or HIST A122 with a minimum grade of C or HIST A131 with a minimum grade of C or HIST A132 with a minimum grade of C.
Attributes: UAA Integrative Capstone GER, UAA Intercultural Fluency GER.

HIST A401 The History of Warfare **3 Credits**
Surveys the history of warfare from the classical age to the present. Examines theories of the origins of war; social, economic, and political organization for war; technology and weapons; administration and logistics; asymmetrical conflict; strategic and tactical systems; war and revolution; and the impact of nuclear weapons.
Prerequisites: HIST A101 with a minimum grade of C or HIST A102 with a minimum grade of C or HIST A121 with a minimum grade of C or HIST A122 with a minimum grade of C or HIST A131 with a minimum grade of C or HIST A132 with a minimum grade of C.

HIST A402 The Second World War **3 Credits**
Examines the origins of the war in Europe and Asia. Emphasizes the grand strategies of the belligerents, the principal military operations, the relationship between science and war, the mobilization of societies and economies for total war, wartime diplomacy, and postwar settlements.
Registration Restrictions: Junior or senior standing

HIST A406 Conflict and Coexistence in Medieval Iberia **3 Credits**
Analyzes key issues in Iberia from roughly 700 to 1492, including changing relationships between communities of Christians, Muslims and Jews. Emphasizes territorial, religious and civil wars; the emergence and development of different kingdoms; rural and urban life; the growth of military orders; the unification of crowns; and Iberian expansion.
Registration Restrictions: Sophomore, junior or senior standing
Prerequisites: HIST A101 with a minimum grade of C or HIST A102 with a minimum grade of C or HIST A121 with a minimum grade of C or HIST A122 with a minimum grade of C or HIST A131 with a minimum grade of C or HIST A132 with a minimum grade of C.

HIST A408 Iberian Empires: Globalization in the Early Modern World **3 Credits**
Analyzes key issues in Iberia and their overseas territories, from roughly 1450 to 1808, including imperial expansion and religious, political and social developments. Emphasizes the impact of ideologies of universal monarchy, the Union of Crowns, the Inquisition, rural and urban life, religious minorities, and the economics of empires.
Registration Restrictions: Sophomore, junior or senior standing
Prerequisites: HIST A101 with a minimum grade of C or HIST A102 with a minimum grade of C or HIST A121 with a minimum grade of C or HIST A122 with a minimum grade of C or HIST A131 with a minimum grade of C or HIST A132 with a minimum grade of C.

HIST A411 History of Modern Germany **3 Credits**
Examines the key political, social, economic and cultural developments in German history from the 1850s to present. Focuses on 19th-century unification, Imperial Germany, the Weimar Republic, Nazism and World War II, division and the Cold War, the two postwar Germanies, and contemporary re-unified Germany.
Prerequisites: HIST A101 with a minimum grade of C or HIST A102 with a minimum grade of C or HIST A131 with a minimum grade of C or HIST A132 with a minimum grade of C.

HIST A418 Tudor and Stuart England **3 Credits**
Examines the history of England from roughly 1485-1714. Examines the development of the English monarchy, the Reformation's impact, the English Civil War and Glorious Revolution, and the establishment of parliamentary government. Emphasizes social and cultural shifts; economic, intellectual, scientific and literary developments; gender roles; and English overseas expansion and colonialism.
Registration Restrictions: Sophomore, junior or senior standing
Prerequisites: HIST A101 with a minimum grade of C or HIST A102 with a minimum grade of C or HIST A121 with a minimum grade of C or HIST A122 with a minimum grade of C or HIST A131 with a minimum grade of C or HIST A132 with a minimum grade of C.

HIST A420 The Rise, Fall, and Reinvention of the Samurai **3 Credits**
Analyzes the historical origins, rise to prominence, dominance and the fall of the warrior caste of Japan. Principal focus on the constant reinvention of the samurai and how the "spirit of the samurai" was used in Japan's modernization.
Registration Restrictions: Junior or senior standing

HIST A422 "Communist" China **3 Credits**
Analyzes the historical origins, rise, struggles and eventual triumph of the Chinese Communist Party in 1949. Examines the wrenching upheavals of the People's Republic under Mao Zedong, "reform and opening up" under Deng Xiaoping and China's "rise" under subsequent generations of leadership to the present. Principal focus on the constant reinvention of Chinese communism to face perceived challenges in China's modernization.
Registration Restrictions: Junior or senior standing

HIST A425 History of the Soviet Union **3 Credits**
Explores the creation, maintenance, and collapse of the Soviet Union, beginning with the nineteenth-century antecedents of the Russian Revolutions of 1917. Examines major events, personalities, and ideas that played a leading role in constructing Soviet society from 1917 to 1991. Themes include the triumph of Bolshevism, the creation of "Soviet society," Stalinism and its legacies, and the dismantling of the Soviet regime.
Prerequisites: HIST A102 with a minimum grade of C.

HIST A427 Post-Soviet Culture and Society **3 Credits**
Interdisciplinary examination and analysis of Russian culture and society from the late 20th century to present. Explores major themes in post-Soviet society including shifting identities and changing social, cultural, political, and economic realities, and examines how these are expressed in a variety of contemporary sources. Conducted in English.
Registration Restrictions: Junior or senior standing and completion of Tier 1 GER courses
Prerequisites: HIST A102 with a minimum grade of C.
Attributes: UAA Integrative Capstone GER, UAA Intercultural Fluency GER.

HIST A431 America: Colonies and Revolution **3 Credits**
Presents American history from the early 1600s to 1801. The two main themes are the interaction between different ethnic and cultural groups, and the creation and development of various political, economic, social, and cultural institutions in the United States.
Registration Restrictions: Junior or senior standing
Prerequisites: HIST A131 with a minimum grade of C.

HIST A434 Government, Indigenous Peoples, Slaves, and Capitalists in Early United States, 1800-1850 **3 Credits**
Analyzes the political, economic, social, religious, and cultural developments in American history from 1800 to 1850. Topics include George Washington's Farewell Address, the Quasi War, the War of 1812, American economic development after 1815, transportation and communication improvements, the American System, the Indian Removal, expansion of Southern slavery, the Reform Movements, and the Second Great Awakening.
May Be Stacked With: HIST A634
Prerequisites: HIST A131 with a minimum grade of C.

HIST A437 Slavery and the Civil War **3 Credits**
Analyzes political, economic, ideological, social and cultural aspects of African slavery in the antebellum United States and the effects of slavery on American society. Topics include the start of western slavery, differences of slavery systems in various regions, changes to slave systems, slave resistance and culture, the coming of the Civil War, the Civil War battles, and the Reconstruction.
Prerequisites: HIST A131 with a minimum grade of C.

HIST A454 United States History in the New Gilded Age: 1980s to the Present **3 Credits**
Presents United States history from the 1980s to the present. Themes include American foreign relations, the end of the Cold War and the War on Terror, increasing levels of economic inequality, the decline of industrial labor, the rise of the service sector, and the changing nature of the nation's political, economic, social, and cultural institutions over the previous forty years.
Registration Restrictions: Junior or senior standing and completion of Written Communication Skills and Oral Communication Skills GER
Prerequisites: HIST A132 with a minimum grade of C.

HIST A477 Senior Seminar **3 Credits**
Provides senior history majors with a required program capstone experience focused on the preparation of a major research paper, utilizing primary and secondary source material on specific topics based on the expertise of department faculty.
Registration Restrictions: Junior or senior standing
Prerequisites: HIST A377 with a minimum grade of C.

HIST A490 Selected Topics in History **3 Credits**
Provides an intensive examination of aspects of history from the perspective of a major field in the discipline in order to provide professional certification or improve competency.
Special Note: May be repeated twice with a change of subtitle.
Registration Restrictions: Junior or senior standing
May Be Stacked With: HIST A690
Prerequisites: HIST A101 with a minimum grade of C or HIST A102 with a minimum grade of C or HIST A121 with a minimum grade of C or HIST A122 with a minimum grade of C or HIST A131 with a minimum grade of C or HIST A132 with a minimum grade of C.

HIST A490G Selected Topics in the History of Gender **3 Credits**
Provides an intensive examination of aspects of history from the perspective of gender as a category of analysis to meet professional certification or improve competency.
Special Note: May be repeated twice for credit with a change of subtitle. May be petitioned to meet the qualifications for WSGS seminar.
Registration Restrictions: Completion of Humanities Tier II GER course requirements
May Be Stacked With: HIST A690G

HIST A495 History Internship **1-3 Credits**
Advanced application of historical writing and/or research skills in a professional setting within the historical discipline.
Special Note: May be repeated for a maximum of 6 credits.
Registration Restrictions: Junior or senior standing, admission to Bachelor of Arts in History, Minor in History, or instructor permission
Prerequisites: (HIST A101 with a minimum grade of B or HIST A102 with a minimum grade of B) and (WRTG A111 with a minimum grade of B or WRTG A211 with a minimum grade of B) and (HIST A121 with a minimum grade of B or HIST A122 with a minimum grade of B or HIST A131 with a minimum grade of B or HIST A132 with a minimum grade of B).

HIST A601 The History Business **3 Credits**
Introduces applied history in non-academic contexts such as government, public or private organizations, heritage tourism, etc. Provides grounding in the discipline of history; practitioners must also be conversant with organizational and management principles, digital humanities, grant funding, as well as regulations relating to conservation and preservation.
Registration Restrictions: Graduate standing or instructor approval

HIST A634 Government, Indigenous Peoples, Slaves, and Capitalists in Early United States, 1800-1850 **3 Credits**
Analyzes the political, economic, social, religious, and cultural developments in American history from 1800 to 1850. Includes topics such as George Washington's Farewell Address, the Quasi-War, the War of 1812, American economic development after 1815, transportation and communication improvements, the American System, the Indian Removal, expansion of Southern slavery, the Reform Movements, and the Second Great Awakening.
Registration Restrictions: Graduate standing or instructor approval
May Be Stacked With: HIST A434

HIST A641 Telling Alaska's Story **3 Credits**
Provides advanced study of Alaska history, emphasizing the three critical themes of the persistence of Alaska as a global crossroads, the enduring presence of Alaska Natives, and the inherent tension in residents' and non-residents' perceptions of the state and its destiny. Trains professionals who would teach, transmit, preserve, or present Alaska history.
Registration Restrictions: Graduate standing or instructor approval

HIST A690 Selected Topics in History **3 Credits**
Provides an intensive examination of scholarship, issues, concerns, and methodology focused on a specialized topic in history. Offers perspectives of a major field in the discipline in order to provide professional certification or improve competency.
Special Note: May be repeated once for credit with a change in subtitle.
Registration Restrictions: Graduate standing or instructor approval
May Be Stacked With: HIST A490

HIST A690G Selected Topics in the History of Gender **3 Credits**
Provides an intensive examination of scholarship, issues, concerns, and methodology focused on a specialized topic in history with emphasis on gender as a category of analysis. Offers perspectives of a major field in the discipline in order to provide professional certification or improve competency.
Special Note: May be repeated once for credit with a change of subtitle.
Registration Restrictions: Graduate standing or instructor approval
May Be Stacked With: HIST A490G

HIST A695 History Internship **1-6 Credits**
Advanced application of historical writing and/or research skills in a professional setting within the historical discipline.
Special Note: May be repeated for a maximum of 6 credits.
Registration Restrictions: Graduate standing or instructor approval

Honors (HNRS)

Courses

HNRS A192 Honors Seminar: Enduring Books **3 Credits**
Focuses on the directed reading of a single book of enduring significance.
Special Note: May be repeated once with a change of subtitle. May be used once for GER Humanities.
Attributes: UAA Humanities GER.

HNRS A292 Honors Seminar in Social Science **3 Credits**
Examines selected topics from a social science perspective. Exposes students to a broad range of social issues, and helps them to develop skills to examine and evaluate their world. Emphasizes research findings and skills, including the collection and analysis of both quantitative and qualitative data. Students will gain considerable experience communicating both orally and in writing.
Special Note: May be repeated once for credit under a different subtitle.
Registration Restrictions: Registration limited to students admitted to the University Honors College, or to students who have permission to register from the University Honors College.
Attributes: UAA Social Sciences GER.

HNRS A310 Community Service: Theory and Practice **3 Credits**
Explores questions of service, community, and self, and includes guided volunteer service with a cultural organization, social service organization, or government agency.
Registration Restrictions: Sophomore or junior standing. Registration open to students admitted to University Honors College, to students who have permission to register from the University Honors College, and to students working on the Certificate in Civic Engagement.

HNRS A390 Selected Topics Honors Seminar **3 Credits**
Focuses on a theme generally outside the scope of those presented in non-seminar courses and often from interdisciplinary approaches. Emphasizes close discussions of readings and requires student research addressing the seminar's topic.
Special Note: May be repeated once for credit with a change of subtitle.
Prerequisites: WRTG A111 with a minimum grade of C or WRTG A1W with a minimum grade of C.
Attributes: UAA Integrative Capstone GER.

HNRS A392 Honors Thesis Seminar **1 Credit**
In-depth application of discipline research skills to a particular problem. Develops an understanding of research problems and research methods used by different disciplines.
Registration Restrictions: Registration limited to students admitted to the University Honors College, and to students who have permission to register from the University Honors College.
Prerequisites: HNRS A192 with a minimum grade of D and HNRS A292 with a minimum grade of D and HNRS A310 with a minimum grade of D.

HNRS A495 Honors Internship **1-6 Credits**
Applying interdisciplinary knowledge and skills to a student internship project, through a variety of governmental and private settings both within and outside of Alaska.
Special Note: Repeatable once for credit with a change of internship venue.
Registration Restrictions: Permission from the University Honors College and approval by a faculty member acting as the internship advisor.

HNRS A498 Individual Research **1-6 Credits**
Individual research project under the supervision of a faculty member. The project will include an academic literature review, experimental design, implementation, analysis, and written paper and/or presentation.

Special Note: May be repeated for a maximum of 6 credits.
Registration Restrictions: Permission from the University Honors College and approval by a faculty member acting as research project advisor

HNRS A499 Honors Thesis **3 Credits**
Independent research under faculty supervision, including formulation of research topic, research and analysis, and defense.
Special Note: May be repeated for a maximum of 6 credits.
Registration Restrictions: Senior standing. Permission from the University Honors College and approval by a faculty member acting as thesis advisor.
Prerequisites: HNRS A392 with a minimum grade of D.

Hospitality Administration (HA)

Courses

HA A105 Introduction to Hospitality Administration **3 Credits**
Introduces the basic principles of management, professionalism, customer service, and operations in hospitality administration. Presents the background and historical development of the hospitality industry and its relevant areas. Employment opportunities and trends in each area are discussed.

HA A201 Advanced Hospitality Administration **3 Credits**
Provides an overview of the hospitality and tourism industry, emphasizing its growth and development, industry segments, trends, leadership development, and current concerns.

HA A205 Front Desk Operations **3 Credits**
Introduces hospitality front desk procedures, including guest reception, night audit, bell desk, reservation systems, concierge service, valet services, and guest security.

HA A210 Hotel Facilities and Operations **3 Credits**
Examines employee supervision in hotel facility departments, maintenance of the physical plant, environmental sustainability practices, housekeeping, facilities management, and engineering.

HA A295 Hospitality Administration Internship **3 Credits**
Provides supervised workplace training in approved hospitality operations. Integrates knowledge and skills through work designed to meet students' individual competency needs and career objectives. Requires minimum of 225 hours at worksite plus 15 hours of consultation with faculty coordinator.
Registration Restrictions: Prior completion of 6 credits in the HA subject, and admission to the Occupational Endorsement Certificate in Hospitality or declaration of the Minor in Hospitality Administration.

HA A310 Hospitality Financial Management **3 Credits**
Examines hospitality accounting principles and practices pursuant to the industry's uniform system of accounts.
Registration Restrictions: Admission to the minor in Hospitality Administration, completion of GER Tier 1 courses with a cumulative GPA of 2.5, and junior or senior standing
Prerequisites: ACCT A201 with a minimum grade of C and ACCT A202 with a minimum grade of C and BA A300 with a minimum grade of C and BA A343 with a minimum grade of C and BA A361 with a minimum grade of C and CA A201 with a minimum grade of C and CA A224 with a minimum grade of C and CA A225 with a minimum grade of C and STAT A200 with a minimum grade of C.

HA A405 Hospitality Leadership and Ethics **3 Credits**
Examines skills necessary to lead and manage hospitality organizations in ethically, economically, environmentally, and socially sustainable ways. Includes analysis of organizational work environments, critical situations, problem solving and critical decision making.

HA A410 Hospitality Marketing **3 Credits**
Examines objectives and strategies related to marketing, consumer demands, marketing planning, and selling methodologies for the hospitality industry.

HA A495 Hospitality Administration Internship **6 Credits**
Application of theoretical concepts and principles in the hospitality management industry. Emphasizes professional competency in customer service, human resource management, operations management, food and beverage cost control, marketing, leadership and ethics. Requires 560 hours at worksite plus 40 hours of seminar instruction and project work.
Registration Restrictions: Admission to the minor in Hospitality Administration, completion of GER Tier 1 courses with a cumulative GPA of 2.5, and junior or senior standing
Prerequisites: ACCT A201 with a minimum grade of C and ACCT A202 with a minimum grade of C and BA A300 with a minimum grade of C and BA A343 with a minimum grade of C and BA A361 with a minimum grade of C and CA A201 with a minimum grade of C and CA A224 with a minimum grade of C and CA A225 with a minimum grade of C and HA A201 with a minimum grade of C and HA A205 with a minimum grade of C and HA A210 with a minimum grade of C and HA A310 with a minimum grade of C and HA A405 with a minimum grade of C and HA A410 with a minimum grade of C and STAT A200 with a minimum grade of C.
Attributes: UAA Integrative Capstone GER.

Humanities (HUM)

Courses

HUM A211 Introduction to Humanities I **3 Credits**
Uses humanities-based methods of inquiry and analysis to interpret art works representative of diverse media, world cultures, and historical eras. Approaches different systems of aesthetic representation through investigations of form, meaning, and values. Places the contributions of individual artists in historical and cultural context.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER.

HUM A212 Introduction to Humanities II **3 Credits**
Uses methods of contemporary humanities-based inquiry to explore major intellectual and aesthetic trends in the world's heritage of arts and ideas. Examines ideas and examples of the arts in the historical and cultural context of their development. Considers how the world's heritage of arts and ideas relates to the aesthetic and intellectual products of a specific world culture or historical era.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER.

HUM A220 Film as/and Literature **3 Credits**
Explores what makes good literature and good film, and the relationship between the two genres. Differentiates between literary and cinematic expression and how one can be adapted to the other. Teaches critical interpretation of novels, plays, films, and short stories.

Human Services (HUMS)

Courses

HUMS A105 Practice of Substance Use Disorder Treatment **3 Credits**
Introduces students to client-centered counseling, American Society of Addiction Medicine (ASAM) and Diagnostic and Statistical Manual (DSM) definitions, diagnostic criteria, and treatment guidelines within the crisis, acute, short-term, and long-term treatment. Provides students with case management models. Addresses ethics of treatment, including documentation guidelines and models, confidentiality, dual relationships, and conflict of interest. Examines motivational interviewing and integrated care.

HUMS A107 History of Systems of Change **3 Credits**
Introduces historical foundations of the human service profession through the lens of formative legislation and the evolution of the profession.

HUMS A122 Substance Use Disorder in Alaska **3 Credits**
Covers social and community factors influencing substance use as a social problem. Focuses on the epidemiology of substance use, substance use disorder, addiction, and co-occurring disorders. Addresses the social, psychological, behavioral and biophysiological aspects of substance use. Addresses infectious diseases that may co-occur with substance abuse.

HUMS A125 Prevention of High Risk Behaviors in Adolescents **3 Credits**
Provides an overview of brain development and its impact on behavior. Presents types of issues in adolescence and prevention approaches to high-risk behavior.

HUMS A155 Field Work and Human Service Practice **3 Credits**
Presents skills appropriate for human service professionals in practicum placements and in future careers. Includes skills related to task groups, leadership, problem-solving, workplace norms, technological literacy, digital communications, and working with diverse client populations. Presents the use of e-portfolios in the documentation of learning.

HUMS A156 Professional ePortfolio for Human Services **1 Credit**
Provides students an opportunity to explore documenting their achievements in a professional electronic portfolio and practice relevant technological literacy skills for the workplace. Includes the completion of self-assessments of students' skills and scope of work in human service organizations.

HUMS A181 Peer Support and Recovery Practices In Behavioral Health **3 Credits**
Prepares students with the academic knowledge to serve as peer support specialists in Alaska. Introduces peer support and recovery practices in behavioral health. Provides opportunities to learn about evidence-based wellness education and recovery action plans. Fulfills the 40-hour training required by the Alaska Commission of Behavioral Health for the Peer Support Professional.

HUMS A190 Selected Topics in Human Service Practice **1-3 Credits**
Examines special interest topics in the field of human services.
Special Note: May be repeated for credit with a change in subtitle.

HUMS A200 Introduction to Children's Behavioral Health **3 Credits**
Covers ethics and ethical practices, self-care, confidentiality, mandatory reporting, overview of child and adolescent development, building and maintaining therapeutic relationships, boundaries, culturally responsive interventions, resiliency, communication, and additional behavioral health topics impacting treatment outcomes for children and adolescents.

HUMS A205 Teaching Behavioral Support and Social Skills to Youth **3 Credits**
Equips students and professionals with practical strategies to enhance children's self-esteem, social competence, and resilience while incorporating positive behavior support principles. Introduces various intervention models and emphasizes effective interactions and conversations to support children from diverse backgrounds, providing a comprehensive framework for enhancing social development and behavior management skills.

HUMS A206 Understanding Mental Health Diagnosis, Treatment, and Interventions in Children’s Behavioral Health **3 Credits**
Offers students a comprehensive understanding of mental health diagnoses commonly observed in children, within the context of supporting the child's well-being. Engages students in exploring interventions associated with various diagnoses. Equips students with the knowledge and skills to effectively support children with behavioral and mental health challenges in various settings.

HUMS A207 Trauma Informed Work with Children **3 Credits**
Covers differentiation between types of trauma that children can experience and how trauma may affect their treatment outcomes. Examines safe and supportive trauma-informed interventions, as well as strategies to reduce the effects of caregiver fatigue.
Special Note: Not available for credit to students who have completed HUMS A307.
May Be Stacked With: HUMS A307

HUMS A212 Cases in Substance Use Disorder Treatment and Practice **3 Credits**
Serves as an integrative experience using the case method. Allows students to work individually and/or in small teams to address practice issues. Includes topics that include assessment of substance use disorder and co-occurring disorders, development of treatment plans, application of best practices such as motivational interviewing, case management process, crisis intervention methods, and team-based collaboration.

HUMS A224 Systems of Conflict and Collaboration **3 Credits**
Presents interpersonal conflict and collaboration through the social construction and general systems theoretical frameworks. Presents models to help manage and/or resolve conflict.

HUMS A225 Counseling in Human Service Practice **3 Credits**
Presents counseling approaches and skills within ethical and theoretical frameworks. Provides students with knowledge and practical application skills for helping relationships, including skills for understanding, positive action, crisis intervention, and trauma-informed care.

HUMS A241 Understanding Guardianship and Conservatorship **3 Credits**
Examines guardianship and conservatorship regarding statutes, authority, limitations, and fiduciary obligations. Explores alternatives to guardianship, the power of attorney, and supported decision-making for vulnerable adults. Introduces person-centered practice as well as medical decision-making obligations and limitations.

HUMS A242 Guardianship: Legal Process, Legal Forms and the Parties **3 Credits**
Describes the legal process of working with guardianships, including petitioners and their duties, types of opening letters, Guardian ad Litem (GAL) conversions, court visitors, motions, annual reports, repayment of benefits, and wills.

HUMS A243 Guardianship: Understanding Community Resources & Benefits **3 Credits**
Provides students with information for guardians working with clients, including knowledge of state and federal programs, the Department of Public Advocacy (DPA) application, Medicaid waivers, conservatorship accounts, eligibility issues, and trusts.

HUMS A244 Advanced Decision-Making, Ethics, and Preparing a Guardianship Business **3 Credits**
Provides students with information on decision-making, ethical issues, National Guardianship Association Standards, and steps necessary to be a public guardian, including licensing, bonding/insurance, national exam, background checks, and tax benefits.

HUMS A253 Human Services and Disabilities **3 Credits**
Explores human services in the diverse field of disabilities. Examines history, service systems, advocacy, and disability culture.

HUMS A254 Finding My Way Home: Place Identity & Historical Trauma **3 Credits**
Introduces historical trauma and its impact on marginalized populations. Explores the diversity of Alaska Native cultures and languages and the concept of place identity. Introduces the 1971 Alaska Native Claims Act. Utilizes case studies, story telling and talking circles to identify culturally appropriate prevention and treatment interventions.
Attributes: UAA Alaska Native-Themed GER.

HUMS A255 Group Work in Human Service Practice **3 Credits**
Presents practical knowledge of planning, facilitating, and sustaining task-centered, support, and psychoeducational groups within human service practice in the formation of supportive communities. Includes a typology of groups and their facilitation, ethical considerations, group leadership, management and evaluation skills, and discussion of basic issues in group membership and facilitation.

HUMS A285 Professional Communication in Human Service Practice **3 Credits**
Develops and enhances students' professional writing skills for successful workplace communications in the field of human services. Prepares students for writing that reflects the values and principles endorsed in human services practice; enhances students' ability in critical thinking and analysis.

HUMS A288 Case Management in Human Services Practice **3 Credits**
Focuses upon theory and application associated with service delivery, client assessment, case planning, implementation, evaluation and ethical decision making.
Registration Restrictions: Admission to the Associate of Applied Science in Human Services, the Bachelor of Human Services or department approval

HUMS A290 Selected Topics in Human Service Practice **3 Credits**
Addresses a selected topic or current issue in human services. Includes topics of national and international interest.
Special Note: May be repeated twice with change of subtitle. Department approval may be substituted for the required prerequisite course(s).

HUMS A295A Human Services Practicum I **3 Credits**
Places students in a community agency with an emphasis on observation of agency structure and function, development of professional and inter-agency relationships, and applying helping skills with agency clients. Includes having students construct e-portfolios to document their growth and development in practicum.
Special Note: Includes a mandatory weekly in-class seminar and 125 hours completed in the field placement agency.
Registration Restrictions: Admission to the Associate of Applied Science in Human Services or the Bachelor of Human Services
Prerequisites: HUMS A155 with a minimum grade of C and HUMS A225 with a minimum grade of C and (WRTG A111 with a minimum grade of C or concurrent enrollment or WRTG A1W with a minimum grade of C).

HUMS A295B Human Services Practicum II **3 Credits**
Provides students with advancing levels of responsibility in direct client services in the community and/or specialized activities/projects while increasing their professional development. Refines e-portfolio for further documentation of learning in practicum.
Special Note: Requires students to complete 125 hours of field placement in an agency setting and weekly classroom seminar.
Registration Restrictions: Admission to the Associate of Applied Science in Human Services or Bachelor of Human Services.
Prerequisites: HUMS A295A with a minimum grade of C.

HUMS A295C Guardianship Practicum **4 Credits**
Provides a practicum placement for students to gain experience working with actual guardianship clients.
Prerequisites: HUMS A241 with a minimum grade of C and HUMS A242 with a minimum grade of C and HUMS A243 with a minimum grade of C and HUMS A244 with a minimum grade of C or concurrent enrollment.

HUMS A301 Substance Abuse Prevention **3 Credits**
Presents knowledge and skills as tools in the development of community education and prevention programs in substance abuse.

HUMS A302 Substance Use Treatment Across the Life Course **3 Credits**
Offers a family-centric approach to substance use treatment and recovery focusing on four phases of the life course (childhood and adolescence, young adulthood, adulthood, and older adult). Addresses recovery ethics.

HUMS A307 Advanced Trauma Informed Work with Children **3 Credits**
Extends knowledge of learning theory to functional behavior assessments of problem behaviors and appropriate interventions in children. Examines the development of behavior support plans using non-aversive interventions for challenging and problematic behaviors with children, with a particular focus on understanding trauma and its impact on children's mental health.
Special Note: It is recommended that students have completed foundational coursework in psychology, child development, or a related field. Not available for credit to students who have completed HUMS A207.

HUMS A321 Diversity Issues in Human Services Practice **3 Credits**
Examines diversity from historical and current perspectives with an emphasis upon self-awareness. Incorporates the needs of diverse groups into human services best practices through readings, role-play and group activity.
Attributes: UAA Intercultural Fluency GER.

HUMS A325 Case Management in Complex Systems **3 Credits**
Introduces policy and process issues involved in providing case management services in highly structured systems. Identifies strengths in collaborating across and among systems and barriers to implementing culturally appropriate case management services to families.

HUMS A333 Alternative Dispute Resolution **3 Credits**
Provides a conceptual framework in alternative dispute resolution with emphasis on history, communication skills and ethics. Uses simulation exercises, including negotiation strategy and tactics, mediation process and techniques, and development of arbitration case theory presentation.

Registration Restrictions: Department approval

HUMS A334 Family Mediation **3 Credits**
Examines the role of mediation in resolving conflict in domestic relations, family business situations and crisis situations within the community. Incorporates systems theory, mediation theories, principles and skills of mediation, different approaches to family mediation and current research.
Registration Restrictions: Department approval

HUMS A355 Approaches for Working with Individual Clients **3 Credits**
Presents techniques for working with individual clients. Covers specific theoretical concepts and techniques appropriate to a broad range of human services delivery systems. Presents approaches in a cultural context for individual clients, particularly ones in which members experience oppression and marginalization.
Registration Restrictions: Admission to the Associate of Applied Science in Human Services, the Bachelor of Human Services, or department approval

HUMS A356 The Dynamics of Human Service Organizations **3 Credits**
Introduces the dynamics of human service organizations and the evolution of the human services field. Examines organizational behavior and its impact on clients, staff, and the community.
Prerequisites: HUMS A225 with a minimum grade of C.

HUMS A390 Selected Topics in Human Service Practice **3 Credits**
Examines special interest topics in the field of human services.
Special Note: May be repeated for a maximum of 9 credits with a change of subtitle.

HUMS A411 Diversity and Substance Use Recovery **3 Credits**
Offers a positive strengths-based perspective on working with diversity as a factor in substance use recovery. Adopts a community and culturally-centric approach to recovery. Builds on recovery ethics, and introduces ethics pertaining to respect and dignity.
Prerequisites: HUMS A302 with a minimum grade of C.

HUMS A412 Ethical Issues in Human Services Practice **3 Credits**
Examines ethical issues in human services practice defined in the National Organization of Human Services (NOHS) Ethical Code. Focuses on client rights, confidentiality and worker responsibility.
Registration Restrictions: Admission to the Associate of Applied Science in Human Services or the Bachelor of Human Services

HUMS A416 Substance Misuse Disorders and the Older Adult **3 Credits**
Addresses the issues related to older adults misusing alcohol, drugs, prescription medications and other substances. Emphasizes identification, assessment and intervention strategies. Highlights mental health issues related to an older population.

HUMS A417 Advanced Recovery Practice in Substance Use Treatment **3 Credits**
Addresses models of counseling and intervention that incorporate diversity and strengths-based approaches for advancing recovery, particularly those useful in challenging situations. Deepens students' understanding of tools to address those challenging situations, including relapse, infectious disease, developmental and cognitive factors, and socio-legal issues.

HUMS A441 Intersectionality - An Approach to Cultural Practice **3 Credits**
Presents the concept of a culturally attuned practitioner, acknowledging the pain of oppression and coming from a place of not knowing. Provides students with the principles of multiracial cultural attunement: critical multiraciality, intersectionality, and social constructivism. Presents theories of racism and oppression as well as theories consistent with cultural attunement.
Prerequisites: HUMS A321 with a minimum grade of C.

HUMS A442 Privilege & Oppression: Equity and Equality in America **3 Credits**
Presents historical information on laws, policies, and regulations that have impacted racism and anti-racism efforts. Provides a framework for recognizing racism in the context of today's society.
Prerequisites: HUMS A321 with a minimum grade of C.

HUMS A455 Crisis Intervention and Trauma Informed Practice **3 Credits**
Presents culturally responsive and effective interventions for crisis management. Presents practice issues related to children and adults who have experienced trauma. Examines the causes, interventions, strategies, and follow-up.
Registration Restrictions: Admission to the Associate of Applied Science in Human Services or the Bachelor of Human Services

HUMS A464 Leadership and Diversity in Contemporary Society **3 Credits**
Explores leadership development, styles and challenges in a global society through the frameworks of transformative and other structural change models. Examines profit and non-profit management as well as agents of change that improve or hinder human services delivery.

HUMS A490 Selected Topics in Human Services Practice **3 Credits**
Presents a systems approach to community and family human service delivery. Examines contemporary and changing service delivery values, perspectives and intervention techniques, in the correctional, child protection, mental health, health, housing, and other complex systems.
Special Note: May be repeated three times with a change of subtitle and content.
Registration Restrictions: Department approval.

HUMS A491 Qualitative Research and Evaluation in a Multicultural Environment **3 Credits**
Provides knowledge and skill development in qualitative research and evaluation. Prepares students for their Capstone research project.
Registration Restrictions: Junior or senior standing or department approval

HUMS A495 Human Services Practicum III **3 Credits**
Provides students with advancing levels of responsibility in direct client services and/or specialized activities/projects. Increases students' professional development through the use of electronic portfolios. Affords students an opportunity to develop the proposal for their Capstone project.
Special Note: Requires students to complete 125 hours in a field placement agency.
Registration Restrictions: Senior standing and admission to the Associate of Applied Science in Human Services or the Bachelor of Human Services
Prerequisites: HUMS A295B with a minimum grade of C.

HUMS A496 Human Services Integrative Capstone **3 Credits**
Prepares students to conduct research and complete an Integrative Capstone project. Includes 50 hours in their last field placement agency for data collection. Requires students to complete a literature review, collect and analyze the data, and present the results using e-portfolio. Provides an opportunity for students to develop grant-writing skills.
Registration Restrictions: Senior standing and admission to the Associate of Applied Science in Human Services or the Bachelor of Human Services
Prerequisites: HUMS A491 with a minimum grade of C and HUMS A495 with a minimum grade of C.
Attributes: UAA Integrative Capstone GER.

Industrial Technology (ITEC)

Courses

ITEC A101 Hazwoper 24 Hour **1.5 Credit**
Designed to provide the classroom requirements for students trained at the Hazardous Waste Site worker level as described in 29 CFR 1910.120.

ITEC A102 Core Curriculum for Skilled Trades **2 Credits**
Introduces foundational skills for skilled craft trades. Covers materials and equipment handling, basic safety for hand and power tools, tool use, and relevant mathematics and communication skills for the trades.
Registration Restrictions: Recommendation of placement into MATH A055 or higher.

ITEC A111 Millwright Level I **4 Credits**
Consists of six modules and the core NCCER curriculum. Provides students with knowledge in basic safety, basic math, hand tools, power tools, blueprints and basic rigging. Provides hands-on and classroom instruction to help students master the skills required in the millwright profession.
Registration Restrictions: At least one high school math class completed at a 10th-grade level, reading and writing at 10th-grade level.

ITEC A112 Millwright Level II **4 Credits**
Consists of nine modules of instruction. Provides hands-on and classroom instruction to help students master the skills required for the millwright profession. Classes will be conducted with the cooperation of industry partnership. Skilled millwrights will participate in instruction of modules and the on-the-job training and skill development.
Prerequisites: ITEC A111 with a minimum grade of D.

ITEC A125 Confined Space Awareness **0.5 Credits**
Designed to give students the training that is required in the federal Confined Space Entry Regulations, 29 CFR 1910.146, for supervisors, attendants and entrants.

ITEC A130 Introduction to Framing **1 Credit**
Introduces basic framing skills used in residential and small facility construction.

ITEC A131 Handyman Walls and Stairs **1 Credit**
Introduces techniques to install insulation, wallboard, windows, doors, and stairs in residential and small facility construction.
Special Note: This course covers skills that a State of Alaska Handyman (2015 SB 193) needs to perform basic residential or small facility improvements and repairs.

ITEC A132 Handyman Interior Finishing **1 Credit**
Introduces cabinet installation, trim carpentry, installing flooring, and tile work.
Special Note: This course covers skills that a State of Alaska Handyman (2015 SB 193) needs to perform basic residential or small facility improvements and repairs.

ITEC A134 Siding Installation **1 Credit**
Introduces principles and practices for the installation, maintenance, and repair of siding.

ITEC A135 Insulation Systems **1 Credit**
Introduces material selection and insulation methods.

ITEC A136 Floor Coverings **1 Credit**
Introduces students to the various types and practical applications of floor coverings.

ITEC A137 Drywall Installation and Finishing **1 Credit**
Introduces drywall installation and repair.

ITEC A138 Roofing Installation **1 Credit**
Introduces materials and installation techniques for basic types of roofing.

ITEC A139 Door and Window Installation **1 Credit**
Introduces the installation of windows and doors. Includes weather stripping and lock set installation.

ITEC A140 Handyman Rough Plumbing **1 Credit**
Introduces basic rough plumbing systems used in residential and small facility improvements and repairs.
Special Note: This course covers skills that a State of Alaska Handyman (2015 SB 193) needs to perform basic residential or small facility improvements and repairs.

ITEC A141 Kitchen and Bathroom Fixtures **1 Credit**
Introduces the installation of kitchen and bathroom fixtures.

ITEC A142 Handyman Outdoor and Hot Water Plumbing **1 Credit**
Introduces basic installation and maintenance of hot water heaters and outdoor water systems used in residential and small facility improvements and repairs.
Special Note: This course covers skills that a State of Alaska Handyman (2015 SB 193) needs to perform basic residential or small facility improvements and repairs.

ITEC A150 Handyman Basic Electrical **1 Credit**
Introduces basic electrical knowledge used in residential and small facility improvements and repairs.
Special Note: This course covers skills that a State of Alaska Handyman (2015 SB 193) needs to perform basic residential or small facility improvements and repairs.

ITEC A151 Handyman Electrical Wiring and Outlets **1 Credit**
Introduces basic electrical wiring and fixture installation used in residential and small facility improvements and repairs.
Special Note: This course covers skills that a State of Alaska Handyman (2015 SB 193) needs to perform basic residential or small facility improvements and repairs.
Prerequisites: ITEC A150 with a minimum grade of C.

ITEC A152 Electrical Fixtures **1 Credit**
Introduces the installation of basic electrical fixtures used in residential and small facilities.

ITEC A211 Millwright Level III **5 Credits**
Consists of 12 modules of instruction. Provides hands-on and classroom instruction to help students master the skills required for the millwright profession. Classes will be conducted with the cooperation of industry partnership. Skilled millwrights will participate in instruction of modules and on-the-job training and skill development.
Prerequisites: ITEC A111 with a minimum grade of D and ITEC A112 with a minimum grade of D.

ITEC A212 Millwright Level IV **5 Credits**
Consists of 12 modules of instruction. Provides hands-on and classroom instruction to help students master the skills required for the millwright profession. Conducted with the cooperation of industry partnership. Skilled millwrights will participate in instruction of modules and on-the-job training and skill development.

ITEC A213 Millwright Level V **5 Credits**
Consists of nine modules of instruction. Students will perform written and manual proficiency in each module. Provides hands-on and classroom instruction to help students master the skills required for the millwright profession. Classes will be conducted with cooperation of industry partnerships. Skilled millwrights will participate in instruction of modules and on-the-job training and skill development.

ITEC A295 Industrial Technology Internship **1-6 Credits**
Provides students with practical experience under the direction of field supervisors.
Special Note: While the college has internship partnerships in place and will make every effort to place students with a sponsoring organization, internship opportunities are not guaranteed; it is ultimately the responsibility of the student to secure an internship.

International Studies (INTL)

Courses

INTL A101 Local Places/Global Regions: An Introduction to Geography **3 Credits**
Explores cultural, social, political, and environmental diversity in an international context. Focus on key global issues, current events, and geographic approaches to understanding world problems.
Crosslisted With: GEOG A101.
Attributes: UAA Intercultural Fluency GER, UAA Social Sciences GER.

INTL A325 Northeast Asia in 21st Century **3 Credits**
An interdisciplinary examination and analysis of Northeast Asia covering China, the Koreas, and Japan designed to provide students with the means to understand how the societies of this region have developed separate and distinct identities despite their common cultural and philosophic roots.
Registration Restrictions: Completion of GER Tier 1 (basic college-level skills) courses.
Crosslisted With: HIST A325 and PS A325
Attributes: UAA Integrative Capstone GER, UAA Intercultural Fluency GER.

Japanese (JPN)

Courses

JPN A101 Elementary Japanese I **4 Credits**
Introductory course for students with no previous knowledge of the Japanese language. Develops listening, speaking, reading, and writing skills in Japanese for effective communication at the elementary level. Students gain understanding of basic cross-cultural perspectives. Course conducted in Japanese.
Attributes: UAA Humanities GER.

JPN A102 Elementary Japanese II **4 Credits**
Continuation of introductory course. Further develops elementary listening, speaking, reading, and writing skills in Japanese for effective communication. Enhances appreciation of cross-cultural perspectives. Course conducted in Japanese.
Prerequisites: JPN A101 with a minimum grade of D.
Attributes: UAA Humanities GER.

JPN A201 Intermediate Japanese I **4 Credits**
Intermediate course for students with basic knowledge of Japanese. Enhances listening, speaking, reading, and writing skills for effective communication at the intermediate level. Students critically examine diverse cultural perspectives. Course conducted in Japanese.
Prerequisites: JPN A102 with a minimum grade of D.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER.

JPN A202 Intermediate Japanese II **4 Credits**
Continuation of first semester in intermediate Japanese. Further develops listening, speaking, reading, and writing proficiency for effective communication and in preparation for advanced study of Japanese. Students interpret diverse cultural perspectives. Course conducted in Japanese.
Prerequisites: JPN A201 with a minimum grade of D.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER.

JPN A290 Selected Topics in Japanese Culture **1 Credit**
Topics in Japanese culture such as Shodo (calligraphy), Zen Meditation, Ikebana (flower arrangement), and Chado/Sado (tea ceremony). Gives students opportunities to learn Japanese culture first hand.
Special Note: May be repeated twice for credit, but not more than one credit can be applied to Language major.
Prerequisites: JPN A101 with a minimum grade of D.

JPN A301 Advanced Japanese I **4 Credits**
Advanced Japanese course in refining listening, speaking, reading, writing and analytical skills for effective interaction in communicatively complex situations. Students critically analyze diverse cultural topics.
Special Note: Course conducted in Japanese.
Registration Restrictions: If prerequisite not met, students can gain entrance to course with departmental approval.
Prerequisites: JPN A202 with a minimum grade of C.

JPN A302 Advanced Japanese II **4 Credits**
Continuation of first semester in advanced Japanese. Further refines listening, speaking, reading, writing and analytical skills for effective interaction in communicatively complex situations. Students critically analyze diverse cultural topics.
Special Note: Course conducted in Japanese.
Registration Restrictions: If prerequisite not met, students can gain entrance to course with departmental approval.
Prerequisites: JPN A301 with a minimum grade of C.

JPN A350 Business Japanese **3 Credits**
Focuses on working knowledge of Japanese business and financial terminology, Japanese business culture, and business practices. Study of business correspondence, terms and jargon, negotiations, and other topics useful in the Japanese business environment.
Special Note: Course conducted in Japanese.
Prerequisites: JPN A202 with a minimum grade of C.

JPN A390 Selected Topics: Studies in Japanese Culture and Society **3 Credits**
Examines various aspects of Japanese culture and society with critical analysis of textual and cultural artifacts (e.g., historical, political, literary) through a variety of disciplinary methodologies. Enhances Japanese language skills in writing, reading, speaking, listening and cultural literacy.
Special Note: Course may be repeated twice for credit with a change in subtitle. Course conducted in Japanese.
Prerequisites: JPN A301 with a minimum grade of C.

JPN A390A Selected Topics: English-Language Studies in Japanese Culture and Society **3 Credits**
An overview of Japanese culture and society on a selected topic, with critical analysis through a variety of disciplinary methodologies (e.g., historical, sociological, political and literary).
Special Note: May be repeated four times with a change of subtitle. Course is conducted in English.
Prerequisites: JPN A202 with a minimum grade of C.

JPN A490 Selected Topics: Studies in Japanese Literature and Culture **3 Credits**
Focuses on intensive study of authors, literary movements, periods and genres in historical and cultural contexts. Enhances Japanese language skills in reading, listening, writing, speaking, and cross-cultural literacy.

Special Note: May be repeated four times for credit with a change of subtitle. Course conducted in Japanese.
Prerequisites: JPN A302 with a minimum grade of C.

Journalism & Public Communications (JPC)

Courses

JPC A104 Media Literacy **3 Credits**
Examines how we access, analyze, evaluate and create media in a variety of forms. Explores how media and technology converge in a global culture. Emphasizes critical thinking skills, self-expression and information literacy.
Attributes: UAA Social Sciences GER.

JPC A201 Reporting and Writing News **3 Credits**
Presents the fundamentals of news reporting and writing, with a focus on the style, conventions and ethical principles. Students will learn to identify newsworthy events and people, conduct interviews, gather information, and prepare news reports for publication.
Prerequisites: WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C or WRTG A2W with a minimum grade of C.

JPC A202 First Amendment and Media Ethics **3 Credits**
Examines media ethics from its foundations to its modern practice. Emphasizes principles and practices of First Amendment law and media ethics.
Prerequisites: WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C or WRTG A2W with a minimum grade of C.

JPC A203 Multimedia Storytelling I **3 Credits**
Provides students with the basic principles and best practices for writing and producing for multiple media platforms. Introduces the fundamentals of writing, story structure, and audio and video production. Introduces student portfolio for major.

JPC A210 Infographics, Data Visualization and Strategy **3 Credits**
Introduces data science and analytics as used in journalism and public communications. Presents a broad overview of the various aspects of data analytics such as accessing, cleansing, modeling, visualizing and interpreting data. Students will perform hands-on learning of data analytics and visualization topics, including technologies and tools.

JPC A212 Editing for Journalism and Public Communications **3 Credits**
Focuses on principles and practices of editing copy for print, broadcast, Web and mobile; selecting pictures and video; and writing headlines, cutlines, blurbs, teases and promos. Emphasizes line editing, news judgment, leadership, ethical decision making, media design, language usage, and on-screen editorial and design tools.
Prerequisites: WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C or WRTG A2W with a minimum grade of C.

JPC A213 Digital Imaging **3 Credits**
Examines the creation and use of images to communicate with digital single-lens reflex (DSLR) cameras. Emphasizes visual aesthetics, composition, image layering, photo ethics, spatial relationships, compression techniques, selection, masking, stacking, editing, color adjustment, filtering, image capture and file formatting.

JPC A278 Sharing Science with Diverse Audiences **1-3 Credits**
Builds practical skills in sharing science among diverse audiences using a variety of methods, with an emphasis on nonfiction writing, interpretive techniques, public speaking and facilitating interactive discussion in community fora, and the use of social media. Focuses on the effective communication of clear messages to target audiences using evidence-based strategies about how people learn and are motivated to change environmental attitudes and behaviors. Appropriate methods for sharing traditional ecological knowledge in cross-cultural situations will also be emphasized.
Crosslisted With: ENGL A278

JPC A278L Sharing Science with Diverse Audiences Lab **1-2 Credits**
Builds practical skills in observing and evaluating expert practitioners in the field of science communication. Applies evidence-based strategies to engage diverse audiences. Emphasizes appropriate methods for sharing traditional knowledge in cross-cultural situations.
Crosslisted With: ENGL A278L

JPC A312 History of Alaska Media **3 Credits**
Examines the history and development of Alaska media. Emphasis on how Alaska media have shaped the development of Alaska from "Seward's Folly" through statehood to coverage of current political and social controversies.
Prerequisites: WRTG A111 with a minimum grade of C or WRTG A1W with a minimum grade of C.

JPC A314 Documentary Filmmakers and Filmmaking **3 Credits**
Analyzes cinematography and filmmaking techniques of significant American and international documentary filmmakers. Presents documentary film history and criticism from dawn of the genre to present day.

JPC A342 Photojournalism **3 Credits**
Presents history, theory and skills of photojournalism, including still and moving images. Emphasis on principles, practices and professional standards of shooting and editing digital images and video on deadline.
Prerequisites: JPC A104 with a minimum grade of C.

JPC A343 Radio News Reporting **3 Credits**
Emphasizes the principles and practices of professional audio news reporting, including story research, recording, writing, announcing, sound editing and deadline news production. Students produce and disseminate audio news stories for a variety of broadcast and online markets.
Prerequisites: JPC A201 with a minimum grade of C.

JPC A344 Television News Reporting **3 Credits**
Emphasizes the principles and practices of television news reporting, news judgment, ethics, story research, writing, shooting, and editing.
Prerequisites: JPC A104 with a minimum grade of C and JPC A203 with a minimum grade of C.

JPC A345 Web Design **3 Credits**
Emphasizes professional practices and processes, usability, design, and accessibility compliance in web design. Addresses mobile design and content management systems.

JPC A362 Principles of Strategic Communications **3 Credits**
Covers how to develop strategic messages in online and traditional media through public relations, integrated marketing and advertising. Emphasizes ethical strategies and tactics to communicate timely, effective and truthful messages while adhering to sound business principles. Explores how employee, consumer and stakeholder communications have changed with digital communication and social networks.

JPC A366 Planning and Writing for Strategic Communications **3 Credits**
Emphasizes essential elements involved in writing, planning, implementing and evaluating strategic communications. Introduces strategic communications materials in a variety of formats, including fact sheets, advertising, news releases, brochures, blogs, position papers, and social media strategy.

JPC A368 Commercial Photography **3 Credits**
Analyzes contemporary commercial photography. Emphasizes use of staging, lighting, and photographic techniques for advertising, public relations, and integrated marketing for commercial clients.
Prerequisites: JPC A213 with a minimum grade of C.

JPC A382 Podcasting **3 Credits**
Emphasizes professional principles and practices of digital audio production including recording voice and ambient sound, interviewing, narrating, multi-track mixing, and editing. Students write and produce digital audio programs (podcasts) for broadcast.
Prerequisites: JPC A203 with a minimum grade of C.

JPC A383 TV Studio Production **3 Credits**
Emphasizes professional principles and practices of television studio production. Focuses on fundamentals, including set up, operation, equipment, safety, workflow, the team process of studio-based video production, and the aesthetics and use of studio-based video for communication.
Prerequisites: JPC A104 with a minimum grade of C.

JPC A384 Digital Video Production **3 Credits**
Presents comprehensive digital, non-linear video production and editing practices. Emphasizes professional principles and practices of camera, lighting, sound, and editing of digital video for various distribution systems and audiences.
Prerequisites: JPC A203 with a minimum grade of C.

JPC A403 Communications and Media Research **3 Credits**
Emphasizes methods and practices of empirical research in communications and media, including concept framing, empirical methods, data generation, data analysis, peer review, and results presentation and publication. Students develop and produce empirical primary research papers using quantitative and/or qualitative research methods.
Registration Restrictions: Completion of GER Tier 1 (basic college-level skills) courses and junior standing.
Prerequisites: JPC A104 with a minimum grade of C and (MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A211 with a minimum grade of C or MATH A212 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C or STAT A200 with a minimum grade of C).
Attributes: UAA Integrative Capstone GER.

JPC A404 Global Media **3 Credits**
Compares major foreign mass media systems with the U.S. system. Focuses on dimensions of international mass media and describes issues facing global journalism and media systems. Provides frameworks to critically evaluate various national media and communications systems.
Prerequisites: JPC A104 with a minimum grade of C.

JPC A413 Communications Law **3 Credits**
Examines legal rights, privileges, and regulations of press, radio, television, Internet and films; libel, contempt, copyright, rights of privacy; decisions of regulatory bodies and how they interact with citizens.
Crosslisted With: LEGL A413.
Prerequisites: JPC A202 with a minimum grade of C or JUST A110 with a minimum grade of C or LEGL A101 with a minimum grade of C.

JPC A442 Multimedia Storytelling II **3 Credits**
Applies ethical principles and professional practices of multimedia journalism focused on the creation of storytelling techniques developed for online platforms. Emphasizes transition from student to emerging professional by providing opportunity and guidance for refinement of multimedia storytelling and technical production skills.
Prerequisites: JPC A203 with a minimum grade of C.

JPC A443 Public Service Reporting **3 Credits**
Applies advanced professional and ethical practices of newsgathering, reporting, producing and dissemination. Presents the most current multimedia resources and tools for public service and investigative journalism.
Prerequisites: JPC A201 with a minimum grade of C and JPC A203 with a minimum grade of C.

JPC A445 Magazines **3 Credits**
Covers magazine production from concept to publishing. Includes reporting, writing articles and other content, editing, photography, design and layout, and distribution. Class will produce a general interest color magazine.
Prerequisites: JPC A201 with a minimum grade of C or JPC A203 with a minimum grade of C.

JPC A463 Crisis Communications **3 Credits**
Presents strategic communication approaches to manage how organizations respond to crisis and change such as accidents, product recalls, executive malfeasance, mergers and layoffs, and natural disasters. Identifies and explains dynamics of a crisis, evaluates the effects of crisis and change on organizational reputation, and considers ethical implications. Emphasis is on crisis communications preparedness.
Prerequisites: JPC A362 with a minimum grade of C.

JPC A464 Community and Fundraising Communications **3 Credits**
Emphasizes practical community and fundraising communications. Applies ethical principles and professional practices of planning and execution of nonprofit and fundraising communications programs. Explores role of effective communication in engaging communities in solving problems, building community, and philanthropic giving in nonprofit and for-profit organizations.
Prerequisites: JPC A104 with a minimum grade of C.

JPC A465 Strategic Communications Campaigns **3 Credits**
Applies advanced professional strategic communications practices to a weeks-long campaign from the planning to the execution to the evaluation stages. Applies the ethical use of traditional media, social media and other public engagement forums in influencing audiences. Student teams produce all aspects of the campaign, from conception to presentation.
Prerequisites: JPC A104 with a minimum grade of C.

JPC A484 Digital Film Production **3 Credits**
Presents digital film production techniques, objectives, ethical foundations, and professional principles and practices, including preproduction, production and post-production for documentary and narrative film.
Prerequisites: ART A225 with a minimum grade of C or ENGL A372 with a minimum grade of C or JPC A213 with a minimum grade of C or JPC A382 with a minimum grade of C or JPC A383 with a minimum grade of C or THR A121 with a minimum grade of C or THR A131 with a minimum grade of C or THR A132 with a minimum grade of C.

JPC A490 Selected Topics in Journalism and Public Communications **3 Credits**
Analyze, develop, and apply professional principles and practices to journalism, media and public communications. Topics will vary by semester.
Special Note: May be taken twice for credit with a change of subtitle.
Registration Restrictions: Junior or senior standing.
Prerequisites: JPC A104 with a minimum grade of C.

JPC A492 JPC Capstone Seminar **3 Credits**
Integrates and synthesizes material in other JPC major requirements. Emphasizes the transition from student to emerging professional and considers professional competence, ethical practice, project management, and the synthesis of theory and practice.
Registration Restrictions: Junior or senior standing and completion of GER Tier 1 (basic college-level skills) courses
Prerequisites: JPC A104 with a minimum grade of C and (MATH A104 with a minimum grade of C or MATH A113 with a minimum grade of C or MATH A115 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C or STAT A200 with a minimum grade of C or STAT A253 with a minimum grade of C).
Attributes: UAA Integrative Capstone GER.

JPC A495 JPC Practica and Internships **1-6 Credits**
Applies advanced knowledge and skills in a professional setting. The setting depends on the student, but can include media organizations, nonprofits, for-profit organizations and on-campus experiences.
Special Note: May be repeated for up to 6 credits.
Registration Restrictions: Junior or senior standing, minimum GPA of 3.00 in JPC courses, and approval from JPC media advisor or JPC director of internships
Prerequisites: JPC A104 with a minimum grade of C and JPC A201 with a minimum grade of C and JPC A202 with a minimum grade of C and JPC A203 with a minimum grade of C.

Justice (JUST)

Courses

JUST A110 Introduction to Criminal Justice **3 Credits**
Surveys philosophies, functions and methods of social control with emphasis on the role of law and those involved in its administration--police, courts, and corrections organizations. Includes study of history, organization, processes, and problems related to law and justice agencies in a heterogeneous, democratic society.
Special Note: This course is a prerequisite to most Justice courses.
Attributes: UAA Social Sciences GER.

JUST A175 Introduction to Juvenile Justice **3 Credits**
Provides an introduction to juvenile delinquency and the juvenile justice system. Covers the historical development of juvenile justice in the United States. Special focus is given to linkage between theoretical explanations of juvenile delinquency and the prevention/intervention strategies implemented in the juvenile justice system.
Attributes: UAA Intercultural Fluency GER, UAA Social Sciences GER.

JUST A200 Introduction to Research Methods in Criminology and Criminal Justice **3 Credits**
Introduces research and how it is different from other ways of knowing. Explores how to research the causes, correlates and consequences of criminology and criminal justice issues. Identifies how criminology and criminal justice research is used by various actors, including criminal justice practitioners, policy-makers and members of the public.

JUST A201 Data Analysis in Criminology and Criminal Justice **3 Credits**
Introduces students to descriptive statistical analysis and presentation of crime and criminal justice data. Explores topics including measures of central tendency, dispersion and data visualization. Design data presentations that focus on the production and interpretation of tables and graphs to impact justice policy and practice.
Registration Restrictions: Approved UAA placement test score is required if the prerequisite is not satisfied
Prerequisites: MATH A104 with a minimum grade of C or MATH A113 with a minimum grade of C or MATH A115 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C or MATH A1Q with a minimum grade of C or MATH A2Q with a minimum grade of C or STAT A200 with a minimum grade of C or STAT A253 with a minimum grade of C or STAT A2Q with a minimum grade of C.

JUST A210 Principles of Corrections **3 Credits**
Presents an overview of the field of corrections. Topics include theories of punishment and sentencing, history of the prison and jail, inmate prison life, inmate litigation, and the organization of prisons and staff. Issues of gender, race/ethnicity and class are integrated throughout the course.
Prerequisites: JUST A110 with a minimum grade of C.

JUST A211 Introduction to Restorative Justice **3 Credits**
Introduces the development of community and government responses to crime that encourage healing, accountability, competency, and citizen involvement while holding offenders and communities accountable. Includes theoretical and cultural roots, as well as an overview of restorative justice practices in the U.S. criminal system.
Prerequisites: JUST A110 with a minimum grade of D.

JUST A221 Dynamics of Criminal Justice Organizations **3 Credits**
Surveys organization and management of police, court, correctional and affiliated social service (such as victim services) agency operations. Includes agency roles, goals, structural arrangements and administrative practices; applicability of theory and research; techniques and instruments of organization and management; and principles of change.
Prerequisites: JUST A110 with a minimum grade of C.

JUST A251 Theories of Crime and Criminal Offending **3 Credits**
Introduces theories of crime causation, including biological, psychological, sociological, situational and environmental perspectives. Discusses relative strengths and weaknesses of competing theoretical perspectives. Explores connections between theories of crime and crime/criminal justice policy.
Attributes: UAA Social Sciences GER.

JUST A255 Criminal Investigation **3 Credits**
Introduces fundamentals of investigation. Topics include crime scene search and recording, collection and preservation of physical evidence, and scientific aids. Explores modus operandi, sources of information, interviews and interrogations, follow-up, and case preparation.

JUST A310 Forensic Science and Criminal Justice **3 Credits**
Provides an overview of forensic science and its relationship within the justice system. Focuses on the various areas of criminalistics, which typically involve the analysis done in government crime labs on physical evidence gathered in the course of a criminal investigation.
Special Note: Prior completion of JUST A255 is recommended.
Registration Restrictions: Junior or senior standing.
Prerequisites: JUST A110 with a minimum grade of D or LEGL A101 with a minimum grade of D.

JUST A320 Crime Prevention **3 Credits**
Examines primary, secondary, and tertiary crime prevention strategies and concepts. Explores in a multidisciplinary context the legal, moral and ethical considerations and problems of human and environmental manipulation. Emphasizes contemporary approaches to preventing criminal behavior.
Prerequisites: JUST A251 with a minimum grade of D.

JUST A330 Ethics in Criminal Justice Practice and Policy **3 Credits**
Examines philosophical and moral questions, dilemmas, and conflicts encountered by criminal justice professionals. Introduces theories in ethics and philosophy for the analysis and evaluation of criminal justice practices and policies. Emphasizes ethical inquiry as a component of criminal justice professional development, and of criminal justice education, training, practice, and research.
Prerequisites: JUST A110 with a minimum grade of C.

JUST A333 Crime Victimization and Justice **3 Credits**
Explores the experiences of crime victims and the importance of understanding victimization. Explores past efforts to create justice for crime victims, controversies surrounding these efforts, and new directions for justice moving forward.
Special Note: This course includes explicit discussion of and visual representations of serious crimes, including violent crimes. These graphic depictions can cause adverse reactions, particularly among students who have been victimized.
Registration Restrictions: Junior or senior standing
Prerequisites: JUST A110 with a minimum grade of C or JUST A251 with a minimum grade of C or LEGL A101 with a minimum grade of C or LSSS A111 with a minimum grade of C or PS A102 with a minimum grade of C or PSY A111 with a minimum grade of C or SOC A101 with a minimum grade of C or SOC A201 with a minimum grade of C or SWK A106 with a minimum grade of C.

JUST A334 Police and Society **3 Credits**
Provides a foundation in American policing. Examines the history, social organization, institutional contradictions and contemporary challenges of the police in the United States. Special emphasis given to the use of empirical research methods to advance our understanding of policing.
Prerequisites: JUST A110 with a minimum grade of C and JUST A200 with a minimum grade of C.

JUST A355 Rural Justice **3 Credits**
Investigates rural crime and criminal justice. Examines the specific geographic, social and cultural characteristics of rural communities and how these factors influence the prevalence and nature of crime and criminal justice. Reviews and assesses competing theories of criminal behavior and models of justice across the rural-urban continuum.
Registration Restrictions: Junior or senior standing
Prerequisites: JUST A110 with a minimum grade of C or JUST A251 with a minimum grade of C or LEGL A101 with a minimum grade of C or LSSS A111 with a minimum grade of C or PS A102 with a minimum grade of C or PSY A111 with a minimum grade of C or SOC A101 with a minimum grade of C or SOC A201 with a minimum grade of C or SWK A106 with a minimum grade of C.
Attributes: UAA Alaska Native-Themed GER.

JUST A360 Justice Theory and Policy Analysis **3 Credits**
Critiques the essential theories underlying the operation of the justice system and analyzes contemporary policies within the framework of justice theory and policy. Analyzes the influence of politics and ideology on the operation of the justice system and evaluates the role of social science research evidence in formulating evidence-based justice policy.
Prerequisites: JUST A110 with a minimum grade of C and JUST A200 with a minimum grade of C and JUST A201 with a minimum grade of C and JUST A251 with a minimum grade of C.

JUST A365 World Justice Systems **3 Credits**
Compares and contrasts global justice systems and examines international problems related to crime and justice.
Prerequisites: JUST A110 with a minimum grade of D.

JUST A366 Substance Use and Crime **3 Credits**
Provides a comprehensive overview of the linkages between crime and substance use. Discusses the history of drug use, theories as to why drugs are used, and preventive/treatment methods.
Registration Restrictions: Junior or senior standing.
Prerequisites: JUST A110 with a minimum grade of D.

JUST A371 Cinematic Images of Justice **3 Credits**
Analysis of the criminal justice system as portrayed in the cinema. Compares discrepancies between scientific research findings and popular stereotypes portrayed by the media. Focuses on each component of the criminal justice system. The impact of fictionalized events and justice system action/reaction will be juxtaposed with the reality of the justice system.
Registration Restrictions: Junior or senior standing
Prerequisites: JUST A110 with a minimum grade of C or JUST A251 with a minimum grade of C or LEGL A101 with a minimum grade of C or LSSS A111 with a minimum grade of C or PS A102 with a minimum grade of C or PSY A111 with a minimum grade of C or SOC A101 with a minimum grade of C.

JUST A374 The Courts **3 Credits**
Examines the basic components of the U.S. courts with particular emphasis on case processing through the court system and the roles of court actors. Covers the history as well as the current structure and function of the court system and assesses the gap between the ideals and the realities of court processes and practices. Focuses on the impact of the various court actors, including both the accused and the victim, in the delivery of just outcomes within the Criminal Justice System.
Registration Restrictions: Junior or Senior standing
Crosslisted With: LEGL A374
Prerequisites: JUST A110 with a minimum grade of C or LEGL A101 with a minimum grade of C.

JUST A384 Contemporary Corrections **3 Credits**
Reviews current theory, research and policy in the field of corrections and evaluates the operation of correctional policies using evidence-based standards of effectiveness. Analyzes issues ranging from examining contemporary explanations of United States punishment policies to evaluating treatment and rehabilitation programs.
Prerequisites: JUST A110 with a minimum grade of C or LEGL A101 with a minimum grade of C.

JUST A398 Individual Research **1-6 Credits**
Applies substantive and methodological training to a selected justice topic under the direction of a supervising faculty member. Research activities may include, but are not limited to, conducting literature reviews; compiling bibliographies; formulating research hypotheses; developing research designs; collecting, entering and analyzing data; and interpreting findings.
Special Note: May be repeated for maximum of 6 credits.
Registration Restrictions: Instructor approval
Prerequisites: JUST A110 with a minimum grade of C and JUST A200 with a minimum grade of C and JUST A201 with a minimum grade of C.

JUST A430 Homelessness and Crime **3 Credits**
Introduces methods for measuring homelessness and definitions of homelessness. Examines causes of homelessness and the intersection between homelessness, crime and criminal victimization. Explores conflict over use of public space, techniques used to address this conflict, and policy responses to homelessness.
Registration Restrictions: Junior or senior standing
Prerequisites: JUST A110 with a minimum grade of C or JUST A251 with a minimum grade of C or LEGL A101 with a minimum grade of C or LSSS A111 with a minimum grade of C or PS A102 with a minimum grade of C or PSY A111 with a minimum grade of C or SOC A101 with a minimum grade of C or SOC A201 with a minimum grade of C or SWK A106 with a minimum grade of C.
Attributes: UAA Integrative Capstone GER.

JUST A432 Crime Analysis and Mapping **3 Credits**
Introduces analytical concepts and computer applications used in the study of temporal and spatial crime data. Demonstrates how these techniques can be used by justice agencies with a special emphasis given to police departments.
Registration Restrictions: Completion of all GER Tier 1 (basic college-level skills) courses and junior or senior standing
Prerequisites: JUST A200 with a minimum grade of C and JUST A201 with a minimum grade of C.
Attributes: UAA Integrative Capstone GER.

JUST A434 Police-Community Relations **3 Credits**
Examines police-community relations in the United States. Explores common conceptions of the police role, from the perspective of both the public and the police themselves, and their impact on police-community relations. Emphasizes recent developments aimed at ameliorating strained relationships between the police and various communities.
Registration Restrictions: Junior or senior standing
Prerequisites: JUST A110 with a minimum grade of C or JUST A251 with a minimum grade of C or LEGL A101 with a minimum grade of C or LSSS A111 with a minimum grade of C or PS A102 with a minimum grade of C or PSY A111 with a minimum grade of C or SOC A101 with a minimum grade of C or SOC A201 with a minimum grade of C or SWK A106 with a minimum grade of C.
Attributes: UAA Integrative Capstone GER.

JUST A445 Offender Reentry and Community Supervision **3 Credits**
Covers the history and development of probation and parole, including notions of rehabilitation, reentry and reintegration. Investigates evidence-based standards and diverse types of supervision, treatment, control, restoration and supportive programs for criminal offenders within the community.
Registration Restrictions: Junior or senior standing
Prerequisites: JUST A110 with a minimum grade of C or JUST A251 with a minimum grade of C or LEGL A101 with a minimum grade of C or LSSS A111 with a minimum grade of C or PS A102 with a minimum grade of C or PSY A111 with a minimum grade of C or SOC A101 with a minimum grade of C or SOC A201 with a minimum grade of C or SWK A106 with a minimum grade of C.

JUST A460 Justice in Crisis **3 Credits**
Critically examines various perspectives on justice and the ability of a society to maintain the ideal of justice. Compares conditions in different countries and investigates different social and historical conditions when justice was challenged. Analyzes the influence of culture, race/ethnicity and socioeconomic inequality on the operation of the American justice system.
Registration Restrictions: Completion of all GER Tier 1 (basic college-level skills) courses and junior or senior standing
Prerequisites: JUST A110 with a minimum grade of C and JUST A200 with a minimum grade of C and JUST A251 with a minimum grade of C.
Attributes: UAA Integrative Capstone GER, UAA Intercultural Fluency GER.

JUST A463 Biosocial Criminology **3 Credits**
Examines biosocial correlates of crime and ways these factors interact with socio-environmental and psychophysiological factors to impact crime. Analyzes historical and contemporary theories and research. Applies interacting factors to explain specific types of violent and non-violent criminal behavior.
Registration Restrictions: Completion of all GER Tier 1 (basic college-level skills) courses and senior standing
Prerequisites: JUST A110 with a minimum grade of C and JUST A200 with a minimum grade of C and JUST A201 with a minimum grade of C and JUST A251 with a minimum grade of C.
Attributes: UAA Integrative Capstone GER.

JUST A484 Prisons and Jails **3 Credits**
Analyzes various issues and problems pertaining to the operation of prisons and jails with an emphasis on theory. Includes prison health care, inmate health, inmate violence, special inmate populations, punishment within correctional facilities, and the stresses of correctional work.
Registration Restrictions: Junior or senior standing
Prerequisites: JUST A110 with a minimum grade of C or JUST A251 with a minimum grade of C or LEGL A101 with a minimum grade of C or LSSS A111 with a minimum grade of C or PS A102 with a minimum grade of C or PSY A111 with a minimum grade of C or SOC A101 with a minimum grade of C or SOC A201 with a minimum grade of C or SWK A106 with a minimum grade of C.

JUST A488 Research Practicum **1-6 Credits**
Explores the application of research skills to the study of a problem in the justice field. May involve field research and related independent study.
Special Note: May be repeated for a maximum of 6 credits.
Registration Restrictions: Faculty permission
Prerequisites: JUST A110 with a minimum grade of C and JUST A200 with a minimum grade of C and JUST A201 with a minimum grade of C.

JUST A490 Contemporary Justice Issues **1-6 Credits**
A variable topics course which addresses current issues. Topics of national interest as well as those specific to Alaska will be included.
Special Note: May be repeated for a maximum of 6 credits with a change of subtitle.
Registration Restrictions: Junior or senior standing
Prerequisites: JUST A110 with a minimum grade of D or LEGL A101 with a minimum grade of D.

JUST A495 Internship **1-6 Credits**
Specially arranged field experiences for advanced justice majors. Designed to expand knowledge and skills through supervised placements in justice, law and governmental settings.
Special Note: May be repeated for a maximum of 6 credits.
Registration Restrictions: Junior or senior standing and approval of the internship coordinator
Prerequisites: JUST A110 with a minimum grade of C.

Kinesiology (KIN)

Courses

KIN A112 First Aid and CPR for Professionals **1 Credit**
Provides participants with the knowledge and skills to assess, recognize, and care for patients who are experiencing respiratory or cardiac arrest.
Special Note: Upon completion of the course, students may choose to take the national certification exam(s) for first aid and Cardiopulmonary Resuscitation (CPR) for infant, child, and adult. May be repeated for credit.

KIN A130 Fundamentals of Coaching **3 Credits**
Presents principles, models, and styles of coaching. Aids in the development of a personal coaching philosophy. Examines not only sport coaching, but lifestyle, nutrition, and strength coaching.

KIN A161 Wilderness First Responder **4 Credits**
Provides knowledge, skills, and abilities necessary to administer emergency medical care in wilderness (non-urban) environments. Covers basic anatomy and physiology, assessment and treatment of injuries, appropriate short-term and multi-day patient care and evacuation considerations.
Special Note: Students will be awarded nationally recognized Wilderness First Responder (WFR) certificate and Cardiopulmonary Resuscitation (CPR) certificate upon successful completion of course and other certification requirements.

KIN A181 Introduction to Kinesiology **3 Credits**
Introduces the scientific foundations, history, philosophies and objectives of kinesiology. Surveys career and professional development opportunities.
Special Note: Community engagement required.

KIN A182 Fundamentals of Biomechanics **2 Credits**
Introduces basic mechanical principles of physical activity and exercise. Covers the theoretical and practical basis of motor patterns and phases, assessing movement in both quantitative and qualitative forms.

KIN A260 Foundations of Therapeutic Recreation **3 Credits**
Examines the various aspects of the profession and practice of Therapeutic Recreation (TR). Focuses on an understanding of TR definitions, philosophical and theoretical perspectives, service delivery models, and the TR process.

KIN A261 Recreation and Leisure in Modern Society **3 Credits**
Presents an overview of the global historical and philosophical foundations of leisure and recreation. Provides a conceptual basis for the evolution of leisure, recreation and the industry in relation to social, psychological, economic and environmental factors.
Special Note: Requires community engagement/service hours.
Registration Restrictions: Sophomore, junior or senior standing.
Prerequisites: KIN A181 with a minimum grade of C.

KIN A262 Foundations of Outdoor Recreation **3 Credits**
Introduces the field of outdoor recreation. Examines leisure and recreation as an expression of culture, society and wellness. Includes implications for individuals and groups in modern society. Examines philosophical, historical, theoretical, legal, and ethical foundations of the field. Explores career opportunities.

KIN A263 Assessment, Documentation, and Evaluation in Therapeutic Recreation **3 Credits**
Covers the fundamental principles and techniques of the therapeutic recreation process. Determines and systematically designs accountable intervention programs to meet client needs. Creates a variety of functional intervention, leisure education, and recreation programs with measurable and meaningful outcomes.

KIN A264 Recreation Program Planning and Evaluation **3 Credits**
Examines the fundamental, conceptual, technical and operational aspects of recreational program planning, delivery and evaluation to diverse individuals or groups. Evaluates the socio-cultural, ecological, economic, entrepreneurial and managerial dimensions of providing recreation opportunities.
Prerequisites: KIN A181 with a minimum grade of C.

KIN A266 Introduction to Safety and Risk **3 Credits**
Introduces safety and risk management for outdoor professionals. Covers industry standards and best practices in the areas of planning and decision making to minimize risk in outdoor situations. Covers accident/incident preventions as well as organizational liability for outdoor service providers.

KIN A280 Leadership in Kinesiology **3 Credits**
Examines key concepts, theories and philosophies related to leadership in the health, fitness, rehabilitative and recreation fields. Surveys common leadership styles, traits, skills, techniques and theories. Introduces outcomes-based development and assessment.
Special Note: Community service required.
Prerequisites: KIN A181 with a minimum grade of C or KIN A260 with a minimum grade of C.

KIN A281 Leadership in Activities for Special Populations **2 Credits**
Examines key concepts and presents a variety of activities adapted to meet the needs of special populations. Presents information and current research related to various disabilities. Examines and applies strategies for promoting physical activity experiences for individuals with special needs.
Special Note: Community engagement is required.
Registration Restrictions: Department approval
Prerequisites: KIN A280 with a minimum grade of C or concurrent enrollment.

KIN A282 Leadership in Initiative Activities **2 Credits**
Examines key concepts and activities for facilitating experiential leadership, team-building, and personal growth initiatives. Presents a variety of game types, including those designed as icebreakers, de-inhibitizers, team-builders, for cognitive development and for character development. Introduces planning, preparation, props, techniques, leadership, and safety, with an emphasis on facilitation and de-briefing.
Registration Restrictions: Department approval
Prerequisites: KIN A280 with a minimum grade of C.

KIN A284 Leadership in Fitness Activities **2 Credits**
Examines key concepts associated with leading individual and small-group fitness activities. Presents skills and techniques related to small-group fitness instruction and personal training. Introduces behavior change models and strategies for promoting positive personal health and wellness.
Registration Restrictions: Department approval
Prerequisites: KIN A280 with a minimum grade of C or concurrent enrollment.

KIN A286 Leadership in Recreation and Sport Activities **2 Credits**
Examines key concepts associated with recreation and sports activities. Presents skills and techniques related to leading recreation and sports activities. Examines preparation for play through progressive skill development, modifications and utilizing game strategies.
Registration Restrictions: Department approval
Prerequisites: KIN A280 with a minimum grade of C.

KIN A287 Leadership in Outdoor Recreation Activities **2 Credits**
Examines key concepts and activities associated with outdoor recreation. Presents a variety of outdoor recreation activities. Introduces planning, preparation, equipment, techniques, leadership, environmental ethics, and safety.
Registration Restrictions: Department approval
Prerequisites: KIN A280 with a minimum grade of C or concurrent enrollment.

KIN A289 Prevention and Care of Activity-Related Injuries **3 Credits**
Introduces the profession of athletic training. Examines theories and practices in preventing, recognizing and treating common activity-related injuries.
Prerequisites: BIOL A111 with a minimum grade of D and BIOL A111L with a minimum grade of D and BIOL A112 with a minimum grade of D and BIOL A112L with a minimum grade of D.

KIN A295 Outdoor Leadership Internship **3 Credits**
Provides hands-on experience in the areas of outdoor recreation and leadership, varies depending on student interest and availability. Provides on-site work experience and skill development in addition to examining aspects of professionalism and workplace dynamics.
Special Note: Students will meet with the instructor throughout the internship to discuss, process, and assess their growth and learning during the course.
Registration Restrictions: Admission to the Associate of Applied Science in Outdoor Leadership.

KIN A295A Practicum I **1 Credit**
Focuses on the practical application of theories, concepts and skills obtained through coursework. Field-based learning experiences will take place in approved educational, worksite or agency settings.
Special Note: Extensive community engagement required.
Registration Restrictions: Sophomore, junior or senior standing; and department approval
Prerequisites: KIN A280 with a minimum grade of C.

KIN A296 Capstone: Advanced Outdoor Leadership **1-4 Credits**
Allows students to demonstrate advanced outdoor leadership skills. Emphasizes the application of skills related to expedition planning, technical skill development, leadership, judgement, and decision making. Includes an instructor-facilitated student-designed outdoor expedition. Provides individualized hands-on experience in the areas of outdoor recreation and leadership that varies on students' interest and availability.
Special Note: May be repeated once for credit. Students may have to purchase or rent additional equipment. Requires the ability to function in inclement weather. Requires a good level of physical fitness.
Registration Restrictions: Instructor approval
Prerequisites: PER A170 with a minimum grade of C.

KIN A343 Wellness Program Planning **3 Credits**
Focuses on understanding health behaviors and the development of intervention strategies to modify health risk behaviors within health and wellness programs. Examines various settings for health and wellness programs and the role of the health and wellness professional.
Special Note: Community engagement required.
Prerequisites: BA A151 with a minimum grade of D and KIN A386 with a minimum grade of C or concurrent enrollment.

KIN A356 Lower Body Injury Assessment Skills **3 Credits**
Focuses on the recognition and assessment of injuries. Emphasizes lower-body injury assessment skills and proficiencies.
Prerequisites: BIOL A111 with a minimum grade of C and BIOL A111L with a minimum grade of C and BIOL A112 with a minimum grade of C and BIOL A112L with a minimum grade of C and KIN A289 with a minimum grade of C.

KIN A357 Upper Body Injury Assessment Skills **3 Credits**
Focuses on the recognition and assessment of injuries. Emphasizes upper-body injury assessment skills and proficiencies.
Prerequisites: BIOL A111 with a minimum grade of C and BIOL A111L with a minimum grade of C and BIOL A112 with a minimum grade of C and BIOL A112L with a minimum grade of C and KIN A289 with a minimum grade of C.

KIN A364 Techniques and Facilitation in Therapeutic Recreation **3 Credits**
Examines facilitation techniques relevant to therapeutic recreation (TR). Covers definitions, intervention descriptions, historical perspectives, current research and theoretical foundations related to various TR facilitation techniques and interventions. Allows students the ability to facilitate a variety of evidence-based therapeutic recreation modalities/ interventions for different populations.
Prerequisites: KIN A260 with a minimum grade of C.

KIN A366 Program Dynamics in Therapeutic Recreation **3 Credits**
Explores the therapeutic recreation process, including assessment, planning, implementation, evaluation, and documentation. Includes instruction on evidence-based practices in a variety of service settings, working with other health and human service professionals, and utilizing activity analysis to inform adaptation requirements.

KIN A382 Kinesiology and Biomechanics **4 Credits**
Examines the anatomy, structure, function and biomechanics of human movement. Students will analyze movement and constraints within the mechanical systems and identify potentially injurious movements. Investigates the mechanisms of correct pathological movements from a biomechanical perspective.
Registration Restrictions: Department approval
Prerequisites: BIOL A111 with a minimum grade of D and BIOL A112 with a minimum grade of D and KIN A182 with a minimum grade of C and (MATH A121 with a minimum grade of D or MATH A151 with a minimum grade of D or MATH A152 with a minimum grade of D or MATH A155 with a minimum grade of D or MATH A211 with a minimum grade of D or MATH A212 with a minimum grade of D or MATH A221 with a minimum grade of D or MATH A251 with a minimum grade of D or MATH A251F with a minimum grade of D or MATH A252 with a minimum grade of D or MATH A252F with a minimum grade of D or MATH A253 with a minimum grade of D or STAT A200 with a minimum grade of D).

KIN A383 Movement Theory and Motor Development **3 Credits**
Explores the behavioral, physiological and psychological principles underlying motor control and motor learning. Examines classification and measurement of motor performance, function of sensory processes, perception, memory, and attention.
Registration Restrictions: Department approval
Prerequisites: BIOL A111 with a minimum grade of D and BIOL A111L with a minimum grade of D and BIOL A112 with a minimum grade of D and BIOL A112L with a minimum grade of D and KIN A182 with a minimum grade of C.

KIN A384 Cultural and Psychological Aspects of Health and Physical Activity **3 Credits**
Investigates the dynamic relationship between psychological issues and health behavior adherence and/or physical activity performance. Analyzes the interaction between physical activity, and different cultures and society.
Registration Restrictions: Completion of GER Tier 1 (basic college-level skills) courses, junior or senior standing, and department approval
Prerequisites: PSY A111 with a minimum grade of D or PSY A150 with a minimum grade of D.
Attributes: UAA Integrative Capstone GER, UAA Intercultural Fluency GER.

KIN A385 Physiology of Exercise **4 Credits**
Analyzes the reciprocal relationship between physical activity and the biochemical and physiological processes of the human body. Exercise metabolism, cardiopulmonary function, adaptations to training, and environmental factors are addressed, as well as exercise training guidelines. Covers acute responses and adaptations of the body to the stresses of exercise.
Registration Restrictions: Department approval
Prerequisites: KIN A382 with a minimum grade of C.

KIN A386 Current Issues in Health and Wellness **3 Credits**
Examines current issues related to personal health and wellness. Focuses on subjects related to preventive and lifestyle medicine and healthy behaviors.
Special Note: Community engagement required.
Registration Restrictions: Junior or senior standing and department approval
Prerequisites: KIN A295A with a minimum grade of C.

KIN A395 Practicum II **1 Credit**
Prepares students for their internship experience with an in-depth application of theories, concepts and skills obtained through coursework. Field-based learning experiences will take place in approved educational, worksite or agency settings.
Special Note: Extensive community engagement required.
Registration Restrictions: Junior or senior standing and department approval
Prerequisites: KIN A295A with a minimum grade of C.

KIN A445 Health and Wellness Coaching **3 Credits**
Examines and analyzes key theoretical constructs and coaching processes, and develops skills used by coaches to help individuals create lasting behavior change. Provides an overview of health and wellness coaching as a career or preferred skill set for allied health professionals.
Registration Restrictions: Junior or senior standing.
Prerequisites: PSY A111 with a minimum grade of D or PSY A150 with a minimum grade of D.

KIN A447 Wellness Program Management **3 Credits**
Examines current issues and trends in wellness programs, with a focus on the key administrative and programmatic elements of successful programs. Reviews the competencies and certifications required for wellness professionals.
Special Note: Community engagement required.
Registration Restrictions: Junior or senior standing.
Prerequisites: BA A151 with a minimum grade of D and KIN A395 with a minimum grade of C.

KIN A455 Clinical Exercise Physiology **4 Credits**
Provides an understanding of recent advances in exercise physiology and exercise prescription for clinical populations. Focuses on the study of acute and chronic responses to exercise in patients with cardiovascular, metabolic, pulmonary, orthopedic, immunological, and neurological conditions. Emphasizes the pathophysiology and detection of diseases, medical management, and exercise therapy program design.

Registration Restrictions: Departmental approval
Prerequisites: KIN A484 with a minimum grade of C.

KIN A465 Professional Issues in Therapeutic Recreation **3 Credits**
Provides an examination of current issues, trends and professional concerns relevant to therapeutic recreation (TR), including professional organizations, ethics, benefits, programming trends, legislative issues, professional development, professional standards, and current professional issues. Includes a structured review of the NCTRC Professional Exam; application process and materials.
Registration Restrictions: Junior or Senior standing
Prerequisites: KIN A260 with a minimum grade of C.

KIN A468 Effective Management in Therapeutic Recreation **3 Credits**
Examines necessary skills and knowledge areas required for effective management in therapeutic recreation (TR) services. Topics include general management concepts, managing operations, and managing service delivery with an emphasis on how these topics can be applied within TR services. Supporting topics will include best practices for collaboration with other helping professions.
Registration Restrictions: Junior or senior standing
Prerequisites: KIN A260 with a minimum grade of C.

KIN A484 Exercise Testing and Prescription **4 Credits**
Provides the student with an understanding of techniques necessary for exercise test administration, evaluation and prescription for healthy populations. Emphasizes testing protocols, the evaluation of results and the design of individual exercise prescriptions based upon the results.
Special Note: The course includes hands-on practical experience with a competency-based assessment.
Registration Restrictions: Junior or senior standing and department approval
Prerequisites: KIN A385 with a minimum grade of C.

KIN A486 Standards and Assessment in Kinesiology **3 Credits**
Introduces measurement theory, instruments and procedures for data collection. Covers statistical concepts and methods used in kinesiology-related assessments.
Registration Restrictions: Department approval
Prerequisites: KIN A280 with a minimum grade of C and (MATH A121 with a minimum grade of D or MATH A151 with a minimum grade of D or MATH A152 with a minimum grade of D or MATH A155 with a minimum grade of D or MATH A211 with a minimum grade of D or MATH A212 with a minimum grade of D or MATH A221 with a minimum grade of D or MATH A251 with a minimum grade of D or MATH A251F with a minimum grade of D or MATH A252 with a minimum grade of D or MATH A252F with a minimum grade of D or MATH A253 with a minimum grade of D or STAT A200 with a minimum grade of D).

KIN A487 Administration and Supervision in Kinesiology **3 Credits**
Critiques and evaluates the technical, leadership, and supervisory skills necessary to safely and effectively administer kinesiology-related programs. Presents theoretical, practical and research perspectives.
Registration Restrictions: Junior or senior standing and department approval
Prerequisites: BA A151 with a minimum grade of C and KIN A280 with a minimum grade of C.

KIN A490 Selected Topics in Health, Physical Education and Recreation **1-6 Credits**
Examines selected topics in the health, physical education and recreation industry according to industry demand or faculty expertise.
Special Note: Prerequisites may be required depending on selected topic. Course may be repeated with change in topic.
Registration Restrictions: Department approval

KIN A495 Internship **6-12 Credits**
Provides advanced professional experience in an approved position with supervision and training in health, physical education and recreation programming.
Special Note: Special clothing and equipment may be required.
Registration Restrictions: Successful completion of a minimum of 12 hours of upper-division courses; a minimum grade of C in all Kinesiology (KIN) courses with a minimum cumulative GPA of 2.75; current CPR/First Aid certification; senior standing; admission to the Bachelor of Science in Kinesiology and instructor approval.
Prerequisites: KIN A395 with a minimum grade of C.

Languages (LANG)

Courses

LANG A390 Selected Topics in Crosscultural Explorations and Perspectives **3 Credits**
Explores works in French/Francophone, German-speaking, Japanese, and Latin/Iberian literature, cinema, and other arts from cross-cultural perspectives.
Special Note: May be repeated three times for credit with a change of subtitle. Course conducted in English.
Prerequisites: WRTG A111 with a minimum grade of C or WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C or WRTG A290 with a minimum grade of C or WRTG A2W with a minimum grade of C.
Attributes: UAA Integrative Capstone GER, UAA Intercultural Fluency GER.

LANG A495 Internship in Languages **3 Credits**
Enhances students' educational experience by integrating their language and intercultural skills with the practical workplace experience gained at the internship site.
Special Note: May be repeated once for credit.
Registration Restrictions: Junior or senior standing and admission to the Bachelor of Arts in Languages
Prerequisites: FREN A306 with a minimum grade of C or FREN A310 with a minimum grade of C or FREN A490 with a minimum grade of C or GER A310 with a minimum grade of C or GER A490A with a minimum grade of C or JPN A350 with a minimum grade of C or JPN A390 with a minimum grade of C or JPN A490 with a minimum grade of C or SPAN A310 with a minimum grade of C or SPAN A320 with a minimum grade of C or SPAN A432 with a minimum grade of C or SPAN A490 with a minimum grade of C.

Legal Studies (LEGL)

Courses

LEGL A101 Introduction to Law **3 Credits**
Introduces legal processes in a democratic society. Emphasis on legal terminology, federal and state court systems, and judicial decision making. Introduction to basic concepts of contracts, property, torts, criminal law, family law, alternate dispute resolution and administrative law. Includes skills for conducting basic legal analysis.
Attributes: UAA Social Sciences GER.

LEGL A215 Legal Ethics and the Role of the Legal Professional **3 Credits**
Studies legal ethics and the non-lawyer professional's role in a law office, corporate or public interest legal department, or government agency. Explores nature, scope and ethics of legal practice and the relationship of non-lawyer staff to lawyers, clients, the court system and the public. Emphasizes legal practice in Alaska and the rules governing the unauthorized practice of law. Introduces foundational practice skills and principles of legal research and writing. Emphasizes professional skills development. Legal specialty course.

LEGL A235 Wrongful Convictions **3 Credits**
Explores the systematic flaws in the criminal justice system that lead to wrongful convictions. Explains the phenomena of inaccurate eyewitness identification, confirmation bias, unreliable forensic science, and false confessions within the criminal justice system, and how such occurrences may cascade towards a wrongful conviction.
Prerequisites: JUST A110 with a minimum grade of C or LEGL A101 with a minimum grade of C or PS A102 with a minimum grade of C or SWK A106 with a minimum grade of C.

LEGL A290 Selected Topics in Legal Studies **1-3 Credits**
Addresses selected historical and contemporary legal studies issues of broad public interest. Course topics focus broadly on connections between the law and society.
Special Note: Appropriate for students with limited or no prior legal studies courses. May be repeated for a maximum of 6 credits with change in subtitle.

LEGL A312 Race, Equal Protection and the Law **3 Credits**
Examines how the law in the United States both shapes and reacts to questions of race, and provides comparative analysis with respect to other legally protected classifications. Topics include slavery and its abolishment, racial discrimination and affirmative action, voting rights, American Indian and Alaska Native rights, gender discrimination, and the rights of immigrants and the disabled.
Registration Restrictions: Junior or senior standing
Attributes: UAA Intercultural Fluency GER.

LEGL A315 Law, History and Social Change **3 Credits**
Examines the interplay between American law and society. Explores the influence of changes in social, political, and economic conditions on the lawmaking process in the United States from colonial times to the present. Analyzes the corresponding impact of significant legislation and judicial decisions on American life, politics and culture.
Registration Restrictions: Completion of Written Communication Skills GER for baccalaureate degrees with a minimum grade of D.
Prerequisites: HIST A131 with a minimum grade of D or HIST A132 with a minimum grade of D or JUST A110 with a minimum grade of D or LEGL A101 with a minimum grade of D or PS A101 with a minimum grade of D or SOC A101 with a minimum grade of D.

LEGL A340 Family Law **3 Credits**
Studies federal and state statutes and judicial doctrines governing familial relationships. Emphasis on marriage, divorce, child custody, support, property rights, adoption and child protection. Explores the impact of the Indian Child Welfare Act in Alaska family law.
Prerequisites: HIST A131 with a minimum grade of C or HIST A132 with a minimum grade of C or HUMS A225 with a minimum grade of C or JUST A110 with a minimum grade of C or LEGL A101 with a minimum grade of C or PS A101 with a minimum grade of C or PS A102 with a minimum grade of C or SOC A101 with a minimum grade of C or SWK A151 with a minimum grade of C.

LEGL A343 Constitutional Law **3 Credits**
Introduces students to American constitutional law through a study of the history of the Constitution and selected landmark Supreme Court cases. Topics covered are separation of powers, judicial review, civil rights and liberties, property and economic rights, and others.
Crosslisted With: PS A343.
Prerequisites: JUST A110 with a minimum grade of C or LEGL A101 with a minimum grade of C or PS A101 with a minimum grade of C.

LEGL A352 Criminal Law: Murder, Robbery, and Other Crimes **3 Credits**
Examines elements and functions of substantive criminal law together with constitutional, statutory and rules-based limits on law enforcement in the United States. Includes federal and state law of crimes, defenses, and sentencing. Emphasis on Alaska law.
Registration Restrictions: LEGL A215 recommended
Prerequisites: JUST A110 with a minimum grade of C or LEGL A101 with a minimum grade of C or PS A102 with a minimum grade of C or SWK A106 with a minimum grade of C.

LEGL A354 Criminal Procedure: Rights of the Accused **3 Credits**
Examines constitutional, statutory, and rules-based limits on law enforcement in the United States and explores federal and state laws on search and seizure, interrogations and confessions, identification, arrests and charging, right to counsel, right to jury, and double jeopardy. Emphasis upon legal protections under federal and Alaska constitutions.
Prerequisites: JUST A110 with a minimum grade of C or LEGL A101 with a minimum grade of C.

LEGL A356 Legal Research, Analysis, and Writing **3 Credits**
Explores techniques of legal research, analysis and writing. Includes legal citation; researching judicial, statutory, regulatory, and secondary sources; research databases; fact pattern analysis; and technical rules of legal writing. Emphasizes professional skills development. Legal specialty course.
Prerequisites: LEGL A101 with a minimum grade of C and LEGL A215 with a minimum grade of C and (WRTG A111 with a minimum grade of C or WRTG A1W with a minimum grade of C) and (WRTG A211 with a minimum grade of B or WRTG A212 with a minimum grade of B or WRTG A213 with a minimum grade of B or WRTG A214 with a minimum grade of B or WRTG A2W with a minimum grade of B or ENGL A311 with a minimum grade of B or ENGL A312 with a minimum grade of B or ENGL A313 with a minimum grade of B or ENGL A414 with a minimum grade of B).

LEGL A362 Contracts, Property, and Debt **3 Credits**
Examines fundamental principles of contract law, property ownership (including real property), and debt formation and collection. Includes Uniform Commercial Code and Federal bankruptcy law. Emphasizes practice in Alaska and development of professional skills. Legal specialty course.
Prerequisites: LEGL A101 with a minimum grade of C and LEGL A215 with a minimum grade of C.

LEGL A367 Civil Procedure and Pretrial Practice **3 Credits**
Introduces procedural concepts of civil litigation and pretrial practice. Covers the rules of pleading and process, discovery, and motion practice. Reviews concepts of jurisdiction, venue, parties, statutes of limitation, and res judicata, and the ethical duties of competence and diligence. Emphasizes applied professional skills and practice in Alaska. Legal specialty course.
Prerequisites: LEGL A101 with a minimum grade of C and LEGL A215 with a minimum grade of C.

LEGL A374 The Courts **3 Credits**
Examines the basic components of the U.S. courts with particular emphasis on case processing through the court system and the roles of court actors. Covers the history as well as the current structure and function of the court system and assesses the gap between the ideals and the realities of court processes and practices. Focuses on the impact of the various court actors, including both the accused and the victim, in the delivery of just outcomes within the Criminal Justice System.
Registration Restrictions: Junior or Senior standing
Crosslisted With: JUST A374
Prerequisites: JUST A110 with a minimum grade of C or LEGL A101 with a minimum grade of C.

LEGL A377 Evidence, Investigation, and Discovery **3 Credits**
Examines state and federal rules of evidence; sources and scope of privileges; techniques, ethics, and management of case investigation; and discovery processes and problems. Emphasizes professional skills development, Alaska law, and electronic discovery. Legal specialty course.
Registration Restrictions: Prior completion of LEGL A367 is recommended.
Prerequisites: LEGL A101 with a minimum grade of C and LEGL A215 with a minimum grade of C.

LEGL A380 Torts: Law of Injury, Death, and Consumer Protection **3 Credits**
Analyzes nature and function of the law of torts, workers' compensation, consumer protection litigation, and liability insurance in the United States, as well as the role of the non-lawyer legal professional in tort litigation and workers' compensation claims. Includes ethical issues in tort, workers' compensation, and insurance cases. Practice in Alaska and the development of professional skills are emphasized. Legal specialty course.
Registration Restrictions: Completion of LEGL A215 and LEGL A356 is strongly recommended.
Prerequisites: JUST A110 with a minimum grade of C or LEGL A101 with a minimum grade of C.

LEGL A385 Health Care Law **3 Credits**
Explores legal issues arising in the delivery of health care services, including the practitioner-patient relationship and standards of care, liability, patient privacy and medical records security, insurance and Medicare, access to care, federal and state regulation of health care providers, accreditation and licensure, legal processes, legal-medical terminology, practical legal skills and medical ethics. Emphasizes the relevance of legal issues to practice as a health-care practitioner.

LEGL A398 Individual Research **1-6 Credits**
Explores the application of research skills to a problem in the law. May involve research assistance on a faculty research project or independent study.
Special Note: May be repeated for a maximum of 6 credits. May not repeat or replace material in an existing legal studies course.
Registration Restrictions: Faculty approval
Prerequisites: LEGL A356 with a minimum grade of C.

LEGL A413 Communications Law **3 Credits**
Examines legal rights, privileges, and regulations of press, radio, television, Internet and films; libel, contempt, copyright, rights of privacy; decisions of regulatory bodies and how they interact with citizens.
Crosslisted With: JPC A413.
Prerequisites: JPC A202 with a minimum grade of C or JUST A110 with a minimum grade of C or LEGL A101 with a minimum grade of C.

LEGL A443 Civil Liberties **3 Credits**
Examines civil liberties in the United States with emphasis on the First Amendment, discrimination, the right to privacy and criminal justice. Focuses on Supreme Court cases and literature and considers various influences on legal analysis and judicial decision-making.
Registration Restrictions: Completion of all GER Tier 1 (basic college-level skills) courses and junior or senior standing
Prerequisites: JUST A110 with a minimum grade of C or LEGL A101 with a minimum grade of C or PS A101 with a minimum grade of C.
Attributes: UAA Integrative Capstone GER, UAA Intercultural Fluency GER.

LEGL A449 Jurisprudence and Legal Theory **3 Credits**
Examines the theoretical bases of contemporary legal systems and judicial decision making. Explores the development of and interaction within major schools of legal theory. Topics covered include classical sources of legal theory, core and alternate approaches to legal theory, judicial decision-making, and theories of rights.
Registration Restrictions: Completion of GER Tier 1 (basic college-level skills) courses and junior or senior standing
Prerequisites: JUST A110 with a minimum grade of C or LEGL A101 with a minimum grade of C or PHIL A201 with a minimum grade of C or PS A102 with a minimum grade of C.
Attributes: UAA Integrative Capstone GER.

LEGL A485 Tribal Courts and Alaska Native Rights **3 Credits**
Explores history and nature of Alaska Natives' legal relationship with state and federal governments, issues of tribal sovereignty in the United States, and Alaska Native self-government. Studies the history and impact of the Alaska Native Claims Settlement Act, and the operation of tribal courts in the United States with emphasis on tribal courts in Alaska.
Registration Restrictions: Completion of all GER Tier 1 (basic college-level skills) courses and junior or senior standing.
Prerequisites: HIST A131 with a minimum grade of C or HIST A132 with a minimum grade of C or HUMS A225 with a minimum grade of C or JUST A110 with a minimum grade of C or LEGL A101 with a minimum grade of C or PS A101 with a minimum grade of C or PS A102 with a minimum grade of C or SOC A101 with a minimum grade of C or SWK A151 with a minimum grade of C.
Attributes: UAA Integrative Capstone GER, UAA Intercultural Fluency GER, UAA Alaska Native-Themed GER.

LEGL A487 Trial and Advanced Litigation Processes **3 Credits**
Addresses advanced litigation processes and trial support. Includes alternative dispute resolution processes, case management systems, pretrial orders, pleadings, exhibit and witness lists, pretrial motions, jury instructions and selection, judgments and orders, and notices of appeal. Emphasizes practice in Alaska and development of professional skills. Legal specialty course.
Prerequisites: LEGL A101 with a minimum grade of C and LEGL A215 with a minimum grade of C and LEGL A356 with a minimum grade of C and LEGL A367 with a minimum grade of C and LEGL A377 with a minimum grade of C.

LEGL A489 Legal Studies Senior Seminar **3 Credits**
Analyzes advanced legal concepts and the role of the non-lawyer in administrative law, business organizations, contract law, torts and workers' compensation, estate planning and probate, and property law. Emphasizes applied paraprofessional skills in legal research, fact analysis, and drafting legal documents. Legal specialty course.
Registration Restrictions: Junior or senior standing
Prerequisites: LEGL A101 with a minimum grade of C and LEGL A215 with a minimum grade of C and LEGL A356 with a minimum grade of C and LEGL A367 with a minimum grade of C and LEGL A377 with a minimum grade of C.

LEGL A495 Legal Studies Internship **3-6 Credits**
Provides specially arranged practicum experience for advanced Legal Studies students. Expands knowledge and skills through placement in an online simulated law office. Emphasizes professional skills development. Legal specialty course.
Special Note: Individualized field placements in law-related work settings may be approved. May be repeated for maximum of 6 credits.
Registration Restrictions: Internship coordinator approval.
Prerequisites: LEGL A101 with a minimum grade of C and LEGL A215 with a minimum grade of C and LEGL A356 with a minimum grade of C and LEGL A367 with a minimum grade of C.

Liberal Studies Social Science (LSSS)

Courses

LSSS A111 Cultural Foundations of Human Behavior **3 Credits**
Addresses culture as a concept and phenomenon, including its origins, variety, utility, subtlety and complexity, issues of identity, and cultural aspects of human lives from various social science perspectives.
Attributes: UAA Intercultural Fluency GER, UAA Social Sciences GER.

Library Science (LS)

Courses

LS A101 Introduction to Academic Library Research **1 Credit**
Introduces academic library research strategies, tools and techniques for locating, evaluating and ethically using information.

Linguistics (LING)

Courses

LING A101 How Language Works **3 Credits**
Introduces systematic analysis of human language and description of its phonological structure, grammatical structure, distribution, diversity, and historical development.
Attributes: UAA Humanities GER.

LING A201 The Structure and Meanings of Language **3 Credits**
Explores the ways that languages form words, phrases, clauses, and sentences, with a particular focus on the structures of English.

LING A467 The History and Future of Global English **3 Credits**
Investigates the historical development of the English language from linguistic, social, literary, and technological perspectives, including the effects of cross-linguistic processes and histories of language contact. Relates history and variation in English to local and global contexts.
Registration Restrictions: Junior or Senior standing and Completion of GER Tier 1 (basic college-level skills)
Crosslisted With: ENGL A467
May Be Stacked With: ENGL A667
Prerequisites: (HIST A101 with a minimum grade of C or HIST A102 with a minimum grade of C) and (WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C or WRTG A2W with a minimum grade of C).
Attributes: UAA Integrative Capstone GER.

LING A490D Selected Topics in Style and Social Innovation **3 Credits**
Investigates topics in the analysis of linguistic choices in literary texts.
Special Note: May be repeated once for credit with a change of subtitle.
Crosslisted With: ENGL A490D
May Be Stacked With: ENGL A690D
Prerequisites: WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C or WRTG A2W with a minimum grade of C.

Logistics (LOG)

Courses

LOG A378 Foundations of Logistics and Supply Chain Management **3 Credits**
Introduces managerial theory and practice as applied to logistics and supply chain management. Discusses management of procurement, storage, and the movement of goods and material. Evaluates the concept of total logistics cost.
Prerequisites: (COMM A111 with a minimum grade of C or COMM A235 with a minimum grade of C or COMM A237 with a minimum grade of C or COMM A241 with a minimum grade of C or COMM A1O with a minimum grade of C or COMM A2O with a minimum grade of C) and (WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C or WRTG A2W with a minimum grade of C).

LOG A379 Transportation Management **3 Credits**
Studies the structure and operating characteristics of the major modes of transportation. Applies managerial techniques to transportation decision-making. Discusses procurement and choice of for-hire transportation services within supply chain management.
Prerequisites: LOG A378 with a minimum grade of C.

LOG A415 Purchasing Management **3 Credits**
Studies purchasing activities and cost management techniques. Discusses reverse auctions, contracting, and ethics in purchasing.
Prerequisites: LOG A378 with a minimum grade of C.

LOG A416 International Logistics and Transportation Management **3 Credits**
Studies the logistics activities of international firms. Analyzes international trade and transportation. Discusses issues of international business structures, customs documentation, currency exchange rates, and international marketing.
Prerequisites: LOG A378 with a minimum grade of C and LOG A379 with a minimum grade of C.

LOG A417 Materials Management **3 Credits**
Studies the management of material flows from the supplier to the end customer and from the raw materials dug out of the ground to retail items purchased by customers. Discusses operation and cost analyses applied to materials management.
Prerequisites: LOG A378 with a minimum grade of C.

LOG A495 Internship in Global Logistics and Supply Chain Management **3 Credits**
Provides work experience in an approved position with supervision and training in various phases of global logistics and/or supply chain management within a business organization.
Registration Restrictions: GPA of 3.0 in major, GPA of 2.75 overall, and permission of major advisor.
Prerequisites: LOG A378 with a minimum grade of C.

LOG A661 Logistics and Global Supply Chain Management: Applications and Strategy **6 Credits**
Provides an overview of logistics and supply chain management through real-world examples. Explores best practices in: inbound, internal and outbound logistics; the flow of goods, information, finances and communication in global supply chains; and supply chain strategy, with an emphasis on analysis of global supply chains of all sizes.
Registration Restrictions: Graduate standing and admission to the Master of Science in Global Supply Chain Management or instructor approval

LOG A662 Supply Chain Technology and Systems **6 Credits**
Provides an overview of information flows and systems, supply chain planning systems, tools for supply chain execution and facilitation, supply chain technology uses and considerations, and innovations in supply chain management. Also provides an opportunity to observe and participate in real world examples of supply chain technology and systems applications.
Registration Restrictions: Graduate standing and admission to the Master of Science in Global Supply Chain Management or instructor approval

LOG A663 The Role of Global Supply Chain Management in International Trade **6 Credits**
Introduces international trade agreements, market entry strategies, regulations and best practices needed for international market entry, global market operations requirements and considerations, options for the global movement of goods, and global strategy considerations. Emphasizes the importance of strategic analysis in international supply chain contexts.
Registration Restrictions: Graduate standing and admission to the Master of Science in Global Supply Chain Management or instructor approval

LOG A664 Leadership Principles and Management Skills for Global Supply Chain Managers **6 Credits**
Provides a framework for understanding management and leadership, themselves, emotional intelligence, workplace relationships, teams, communication, conflict, difficult people, means of self-management, and managing and leading others in a global supply chain environment. Also provides application tools for managing interpersonal relationships in the supply chain.
Registration Restrictions: Graduate standing and admission to the Master of Science in Global Supply Chain Management or instructor approval

LOG A665 Quantitative and Financial Performance Metrics for Global Supply Chain Management **6 Credits**
Provides an overview of supply chain performance metrics, intelligent systems, and their roles in supply chain decision making. From a supply chain manager's decision-making perspective. Includes analysis and evaluation of financial statements, cost accounting, multiple factors that impact cost in the supply chain.
Registration Restrictions: Graduate standing and admission to the Master of Science in Global Supply Chain Management or instructor approval

Logistics Operations (LGOP)

Courses

LGOP A110 Logistics, Information Systems and Customer Service **3 Credits**
Introduces the principles and practices of logistics and supply chain operations and how they are integrated into total supply chain management. Discusses the logic of integration concerning how organizations gain a sustainable competitive advantage by implementing total supply chain management. Outlines the role of information technology. Examines customer service from the perspectives of both the organization and the individual.

LGOP A120 Warehouse and Inventory Control Operations **3 Credits**
An introduction to the fundamentals of warehouse management and inventory control operations and how they fit into logistics and the supply chain. The physical aspects of warehousing, layout, coding, safety, materials handling, inventory, and their implications for an organization are explored.

LGOP A125 Transportation Services **3 Credits**
Introduces transportation regulations and policies. Focuses on the roles and services provided by carriers in the rail, road, sea, air, pipeline, and water industries at the state, national, and global levels.

LGOP A160 Purchasing and Supply Management **3 Credits**
Introduces the role of purchasing and supply management in the success of the organization. Discusses modern purchasing and supply management, through clearly defined policy, procedures and processes. Facilitates organizational success by ensuring the organization gets the services and materials needed from their suppliers.

LGOP A235 Transport Operations Management **3 Credits**
Introduces the role and importance of efficient and effective transportation operations of shippers and carriers. Focuses on costing and pricing, carrier and shipper strategies, and information technology.

Marine Technology (MT)

Courses

MT A102 Introduction to Maritime Trades **2 Credits**
Surveys critical topics in seaside and shoreside maritime vocations. Covers facility considerations, dockside maritime heavy machinery, common ship loading procedures, the use of nonverbal signaling, maritime water safety and survivability, boat identification, basic navigation, and chart reading and plotting.
Special Note: Prepares students to take the National Center for Construction Education and Research (NCCER) certification exam in Introduction to Maritime Trades.

MT A109 Introduction to Outboard Systems **1 Credit**
Introduces marine internal combustion engine theory and the proper function of electrical, fuel, ignition, lubrication, and drive systems in two- and four-stroke marine outboard engines.

MT A110 Marine Boathandling and Safety **1 Credit**
Introduces marine terminology, common hull forms, line handling, securing a boat, leaving a dock, safe fueling practices, and marine safety gear.

MT A111 Outboard Engine Maintenance Technician-Portable **3 Credits**
Introduces troubleshooting, maintaining, and repairing four-stroke Portable (2.5-25 HP) outboard marine engines. Provides entry-level marine technicians with the knowledge to maintain the Yamaha F9.9B/T9.9B engine platform according to a maintenance schedule.
Prerequisites: MT A109 with a minimum grade of C or concurrent enrollment or MT A112 with a minimum grade of C.

MT A112 Internal Combustion Engine Theory **2 Credits**
Introduces marine and non-marine internal combustion engine theory, and the repair and maintenance of two- and four-stroke engines.
Special Note: Course is part of the Marine Service Technician certification.

MT A113 Outboard Engines **2 Credits**
Introduces troubleshooting, maintaining and repairing two-stroke and four-stroke outboard marine engines.
Prerequisites: MT A112 with a minimum grade of C.

MT A114 Gasoline Inboard Maintenance and Troubleshooting **2 Credits**
Introduces the maintenance, troubleshooting and repair of gas inboard marine engines.
Prerequisites: MT A112 with a minimum grade of C.

MT A116 Outboard Engine Maintenance Technician-Mid Range **3 Credits**
Introduces troubleshooting, maintaining, and repairing four-stroke Mid Range (30-50 HP) outboard marine engines. Provides entry-level marine technicians with the knowledge to maintain the Yamaha F30A/F40A engine platform according to a maintenance schedule.
Prerequisites: MT A109 with a minimum grade of C or concurrent enrollment or MT A112 with a minimum grade of C.

MT A117 Outboard Engine Maintenance Technician-Inline **3 Credits**
Introduces troubleshooting, maintaining, and repairing four-stroke Inline (90-200 HP) outboard marine engines. Provides entry-level marine technicians with the knowledge to maintain the Yamaha F/LF150B engine platform according to a maintenance schedule.
Prerequisites: MT A109 with a minimum grade of C or concurrent enrollment or MT A112 with a minimum grade of C.

MT A118 Outboard Engine Maintenance Technician-V6 **3 Credits**
Introduces troubleshooting, maintaining, and repairing four-stroke V6 (225-300 HP) outboard marine engines. Provides entry-level marine technicians with the knowledge to maintain the Yamaha 4.2L Offshore engine platform according to a maintenance schedule.
Prerequisites: MT A109 with a minimum grade of C or concurrent enrollment or MT A112 with a minimum grade of C.

MT A119 Marine Electrical **2 Credits**
Introduces marine electrical system installation and troubleshooting for alternating and direct current systems.

MT A120 Marine Electronics **1 Credit**
Introduces the installation, setup and maintenance of marine electronics.
Prerequisites: MT A119 with a minimum grade of C.

MT A121 Marine Plumbing **1 Credit**
Introduces basic plumbing as it applies in a marine environment.

MT A130 Marine Drive Systems **1 Credit**
Introduces the fundamental concepts of marine drive systems, including transmissions, drive shafts, and propellers.
Special Note: Course is part of the Marine Service Technician certificate.

MT A140 Marine Boat Trailers **1 Credit**
Introduces the maintenance and repair of boat trailers.

MT A150 Marine Materials **1 Credit**
Introduces procedures to make minor repairs to marine hulls made of wood, metal and composite materials.

Mathematics (MATH)

Courses

MATH A054 Prealgebra **3 Credits**
Covers operations and applications of whole numbers, integers, fractions, decimals, ratios and proportions, percents, geometry and measures, evaluation of algebraic expressions and applications.
Special Note: MATH A054A, MATH A054B, and MATH A054C combined are equivalent to MATH A054.
Registration Restrictions: An approved UAA placement test is required.
Prerequisites: ALEKS Overall Test 1 with a score of 0 or ALEKS Overall Test 2 with a score of 0 or ALEKS Overall Test 3 with a score of 0 or ALEKS Overall Test 4 with a score of 0 or ALEKS Overall Test 5 with a score of 0.

MATH A055 Elementary Algebra **3 Credits**
Covers evaluating and simplifying algebraic expressions, polynomials, factoring, integer exponents, rational expressions, solutions of linear equations and inequalities, quadratic equations, and graphs of lines.
Special Note: MATH A055A, MATH A055B, and MATH A055C combined are equivalent to MATH A055.
Prerequisites: MATH A054 with a minimum grade of C or ALEKS Overall Test 1 with a score of 017 or ALEKS Overall Test 2 with a score of 017 or ALEKS Overall Test 3 with a score of 017 or ALEKS Overall Test 4 with a score of 017 or ALEKS Overall Test 5 with a score of 017.

MATH A060 Essential Mathematics **4 Credits**
Teaches the concepts of basic arithmetic and introductory algebra. Topics include: operations and properties of real numbers, solving proportions and percentage problems, scientific notation, integers as exponents, solving and graphing linear equations and inequalities, operations on polynomials, factoring polynomials, solving quadratic equations by factoring, operations on rational expressions, solving rational equations, and solving elementary systems of two equations.
Special Note: Course content covers content presented in MATH A054 and MATH A055. Credit will not be given for both MATH A055 and MATH A060.
Prerequisites: ALEKS Overall Test 1 with a score of 10 or ALEKS Overall Test 2 with a score of 10 or ALEKS Overall Test 3 with a score of 10 or ALEKS Overall Test 4 with a score of 10 or ALEKS Overall Test 5 with a score of 10.

MATH A066 Math Bootcamp 1 **1 Credit**
Offers intensive review of entry level mathematics designed for students entering elementary or intermediate algebra, on a shortened timeline and designed to be taken immediately prior to a semester length math class.
Special Note: Student should intend to take a MATH class within a semester of taking this course. This course is meant to potentially place students into a higher level course or to increase the chances of success at the current placement. May be repeated twice for credit.

MATH A104 Technical Mathematics **3 Credits**
Uses applications from various professions to explore proportions, reading data, geometric properties, and the use of exponential and trigonometric functions with an emphasis on recognizing mathematical relationships and using mathematical models.
Prerequisites: MATH A055 with a minimum grade of C or MATH A060 with a minimum grade of C or ALEKS Overall Test 1 with a score of 030 or ALEKS Overall Test 2 with a score of 030 or ALEKS Overall Test 3 with a score of 030 or ALEKS Overall Test 4 with a score of 030 or ALEKS Overall Test 5 with a score of 030.
Attributes: UAA Quantitative Skills GER.

MATH A105 Intermediate Algebra **4 Credits**
Topics include expressions, equations and applications involving linear, quadratic, rational and radical functions; graphs of linear and quadratic functions; functions and their inverses; introduction to exponential and logarithmic functions; and systems of linear equations.
Prerequisites: MATH A055 with a minimum grade of C or MATH A060 with a minimum grade of C or ALEKS Overall Test 1 with a score of 030 or ALEKS Overall Test 2 with a score of 030 or ALEKS Overall Test 3 with a score of 030 or ALEKS Overall Test 4 with a score of 030 or ALEKS Overall Test 5 with a score of 030.

MATH A113 Numbers and Society **3 Credits**
A quantitative literacy course showcasing how our society uses mathematics. Topics include the mathematics of elections and voting, finance, cryptography, probability, and descriptive statistics. Students will learn techniques such as growth models, modular arithmetic, basic logic, and rules of probability and chance.
Prerequisites: MATH A055 with a minimum grade of C or MATH A060 with a minimum grade of C or MATH A105 with a minimum grade of C or MATH A211 with a minimum grade of C or ALEKS Overall Test 1 with a score of 30 or ALEKS Overall Test 2 with a score of 30 or ALEKS Overall Test 3 with a score of 30 or ALEKS Overall Test 4 with a score of 30 or ALEKS Overall Test 5 with a score of 30.
Attributes: UAA Quantitative Skills GER.

MATH A115 Art of Mathematics **3 Credits**
Presents practical mathematics people use, beautiful mathematics people see, and abstract mathematics people dream. Enables students to describe and analyze the world around them.
Special Note: Does not fulfill the prerequisite for any other mathematics course.
Registration Restrictions: Placement into MATH A105 or higher and WRTG A111 or higher
Prerequisites: MATH A055 with a minimum grade of C or MATH A060 with a minimum grade of C or ALEKS Overall Test 1 with a score of 030 or ALEKS Overall Test 2 with a score of 030 or ALEKS Overall Test 3 with a score of 030 or ALEKS Overall Test 4 with a score of 030 or ALEKS Overall Test 5 with a score of 030.
Attributes: UAA Quantitative Skills GER.

MATH A120 Math Bootcamp 2 **1 Credit**
Offers intensive review of entry level mathematics designed for students entering college algebra or trigonometry, on a shortened timeline and designed to be taken immediately prior to a semester length math class.
Special Note: Student should intend to take a 100-level MATH class within a semester of taking this course. This course is meant to potentially place students into a higher level course or to increase the chances of success at the current placement. May be repeated once for credit.
Prerequisites: MATH A105 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A211 with a minimum grade of C or MATH A212 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C or ALEKS Overall Test 1 with a score of 55 or ALEKS Overall Test 2 with a score of 55 or ALEKS Overall Test 3 with a score of 55 or ALEKS Overall Test 4 with a score of 55 or ALEKS Overall Test 5 with a score of 55.

MATH A121 Applied College Algebra **3 Credits**
Emphasizes quantitative decision-making in the managerial, life, and social sciences. Covers linear and quadratic equations and inequalities, algebra of matrices, introductory linear programming, simple linear regression, exponential and logarithmic functions.
Prerequisites: MATH A105 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A211 with a minimum grade of C or MATH A212 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C or ALEKS Overall Test 1 with a score of 055 or ALEKS Overall Test 2 with a score of 055 or ALEKS Overall Test 3 with a score of 055 or ALEKS Overall Test 4 with a score of 055 or ALEKS Overall Test 5 with a score of 055.
Attributes: UAA Quantitative Skills GER.

MATH A151 College Algebra for Calculus **4 Credits**
Study of algebraic, logarithmic, and exponential functions; systems of equations; and applications.
Registration Restrictions: If the prerequisite is not satisfied, an approved UAA placement test is required.
Prerequisites: MATH A105 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A211 with a minimum grade of C or MATH A212 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C or ALEKS Overall Test 1 with a score of 055 or ALEKS Overall Test 2 with a score of 055 or ALEKS Overall Test 3 with a score of 055 or ALEKS Overall Test 4 with a score of 055 or ALEKS Overall Test 5 with a score of 055.
Attributes: UAA Quantitative Skills GER.

MATH A152 Trigonometry **3 Credits**
A study of trigonometric functions, including graphing, identities, inverse trigonometric functions, solving equations and polar coordinates, and applications.
Special Note: A student may apply no more than 7 credits from any combination of MATH A151, MATH A152 and MATH A155 toward the graduation requirements for any baccalaureate degree.
Registration Restrictions: If the prerequisite is not satisfied, an approved UAA placement test is required.
Prerequisites: MATH A151 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A211 with a minimum grade of C or MATH A212 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C or ALEKS Overall Test 1 with a score of 065 or ALEKS Overall Test 2 with a score of 065 or ALEKS Overall Test 3 with a score of 065 or ALEKS Overall Test 4 with a score of 065 or ALEKS Overall Test 5 with a score of 065.
Attributes: UAA Quantitative Skills GER.

MATH A155 Precalculus **5 Credits**
Covers algebra and trigonometry required for calculus. Includes polynomial, rational, exponential, logarithmic and trigonometric functions, and trigonometric identities.
Special Note: A student may apply no more than 7 credits from any combination of MATH A151, MATH A152 and MATH A155 toward the graduation requirements for any baccalaureate degree.
Registration Restrictions: If the prerequisite is not satisfied, an approved UAA placement test is required.
Prerequisites: MATH A105 with a minimum grade of B or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A211 with a minimum grade of C or MATH A212 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C or ALEKS Overall Test 1 with a score of 055 or ALEKS Overall Test 2 with a score of 055 or ALEKS Overall Test 3 with a score of 055 or ALEKS Overall Test 4 with a score of 055 or ALEKS Overall Test 5 with a score of 055.
Attributes: UAA Quantitative Skills GER.

MATH A211 Mathematics for Elementary School Teachers I **3 Credits**
Studies elementary set theory, numeration systems, algorithms of arithmetic, elementary number theory, integers, rational numbers and problem-solving strategies.
Special Note: MATH A211 and MATH A212 with a minimum grade of C are required to meet State of Alaska teacher certification standards.
Prerequisites: MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A212 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C or STAT A200 with a minimum grade of C.

MATH A212 Mathematics for Elementary School Teachers II **3 Credits**
Studies functions, informal geometry, measurement, statistics and probability.
Special Note: MATH A211 and MATH A212 with a minimum grade of C are required to meet State of Alaska teacher certification standards.
Prerequisites: MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A211 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C or STAT A200 with a minimum grade of C.

MATH A221 Applied Calculus for Managerial and Social Sciences **3 Credits**
Covers functions and graphs, differentiation, exponential and logarithmic functions, antidifferentiation and integration, and functions of several variables. Applies these mathematical concepts.
Prerequisites: MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A211 with a minimum grade of C or MATH A212 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C or ALEKS Overall Test 1 with a score of 078 or ALEKS Overall Test 2 with a score of 078 or ALEKS Overall Test 3 with a score of 078 or ALEKS Overall Test 4 with a score of 078 or ALEKS Overall Test 5 with a score of 078.
Attributes: UAA Quantitative Skills GER.

MATH A251 Calculus I **4 Credits**
A first course in single-variable calculus. Topics include limits; continuity and differentiation of functions; applications of the derivative to graphing, optimization and rates of change; definite and indefinite integration; and the fundamental theorem of calculus.
Registration Restrictions: If the prerequisite is not satisfied, an approved UAA placement test is required.
Prerequisites: (MATH A151 with a minimum grade of C and MATH A152 with a minimum grade of C) or MATH A155 with a minimum grade of C or MATH A211 with a minimum grade of C or MATH A212 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C or ALEKS Overall Test 1 with a score of 078 or ALEKS Overall Test 2 with a score of 078 or ALEKS Overall Test 3 with a score of 078 or ALEKS Overall Test 4 with a score of 078 or ALEKS Overall Test 5 with a score of 078.
Attributes: UAA Quantitative Skills GER.

MATH A251F F.A.T. Calculus I **6 Credits**
Introduces single-variable calculus. Provides Fast introduction to required topics in Algebra and Trigonometry. Introduces limits, continuity, differentiability, and Riemannian integration including the Fundamental Theorem of Calculus. Presents applications of the derivative to graphing, optimization, and rates of change. Presents calculation of derivatives, definite integrals, and indefinite integrals.
Prerequisites: MATH A105 with a minimum grade of A or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A211 with a minimum grade of C or MATH A212 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C or ALEKS Overall Test 1 with a score of 60 or ALEKS Overall Test 2 with a score of 60 or ALEKS Overall Test 3 with a score of 60 or ALEKS Overall Test 4 with a score of 60 or ALEKS Overall Test 5 with a score of 60.
Attributes: UAA Quantitative Skills GER.

MATH A252 Calculus II **4 Credits**
Further topics in single-variable calculus, including techniques of integration, applications of integration, convergence of sequences and series, parameterized curves, and polar coordinates.
Prerequisites: MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C.
Attributes: UAA Quantitative Skills GER.

MATH A252F F.A.T. Calculus II **6 Credits**
Extends single-variable calculus. Provides Fast coverage of topics from Algebra and Trigonometry required for Calculus II and III. Presents techniques of integration, applications of integration and use of parameterization of curves and polar coordinates. Introduces convergence of sequences and series including power series.
Prerequisites: MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C.
Attributes: UAA Quantitative Skills GER.

MATH A253 Calculus III **4 Credits**
Multivariable calculus. Topics include vectors in two and three dimensions; differential calculus of functions of several variables; multiple integration; vector calculus, including Green's and Stokes' theorem; and applications.
Prerequisites: MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C.
Attributes: UAA Quantitative Skills GER.

MATH A261 Introduction to Discrete Mathematics **3 Credits**
Introduces basic logic, mathematical structures, graph theory and enumeration.
Registration Restrictions: If the prerequisite is not satisfied, an approved UAA placement test is required.
Prerequisites: MATH A151 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or ALEKS Overall Test 1 with a score of 078 or ALEKS Overall Test 2 with a score of 078 or ALEKS Overall Test 3 with a score of 078 or ALEKS Overall Test 4 with a score of 078 or ALEKS Overall Test 5 with a score of 078.

MATH A264 Introduction to the Mathematics Major **1 Credit**
Introduces the major topical areas of mathematics, tools and research methods of mathematicians, and potential career paths in mathematics. Required eportfolio is begun in this course. Opportunities for undergraduates will be presented.
Prerequisites: MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or concurrent enrollment or MATH A251F with a minimum grade of C or concurrent enrollment or MATH A261 with a minimum grade of C.

MATH A265 Fundamentals of Mathematics **3 Credits**
Presents logic, sets, relations, functions and cardinality. Introduces mathematical proof techniques.
Prerequisites: MATH A252 with a minimum grade of C.

MATH A302 Ordinary Differential Equations **3 Credits**
Nature and origin of differential equations; analysis of first order, linear scalar, and systems of differential equations using exact, qualitative and geometric methods; forcing and resonance; Laplace transform; and applications.
Prerequisites: MATH A253 with a minimum grade of C.

MATH A305 Introduction to Geometries **3 Credits**
Presents Euclidean, hyperbolic, and some projective geometry using both synthetic and transformational perspectives.
Prerequisites: MATH A253 with a minimum grade of C and MATH A265 with a minimum grade of C.

MATH A306 Discrete Methods **3 Credits**
Introduces enumeration and graph theory with some algorithms.
Prerequisites: (MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C) and (MATH A261 with a minimum grade of C or MATH A265 with a minimum grade of C).

MATH A309 Introduction to Number Theory **3 Credits**
Examines fundamental concepts of number theory including primes, divisibility, congruences, quadratic reciprocity, number theoretic functions, continued fractions and Diophantine equations.
Prerequisites: MATH A265 with a minimum grade of C.

MATH A314 Linear Algebra **3 Credits**
Studies linear equations, matrices, determinants, finite dimensional vector spaces, linear transformations, characteristic values and inner product spaces.
Prerequisites: MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C.

MATH A401 Introduction to Real Analysis **3 Credits**
Investigates the limit concept with special reference to functions on the real line. Topics include continuous functions and their properties, sequences and series, and differentiation and integration of functions.
Prerequisites: MATH A253 with a minimum grade of C and MATH A265 with a minimum grade of C.

MATH A405 Introduction to Abstract Algebra **3 Credits**
Introduces groups, rings and fields.
Prerequisites: MATH A253 with a minimum grade of C and MATH A265 with a minimum grade of C.

MATH A410 Introduction to Complex Analysis **3 Credits**
Explores analytic functions, Cauchy's theorem, sequences and series, integration, and residues.
Prerequisites: MATH A253 with a minimum grade of C and MATH A265 with a minimum grade of C.

MATH A420 Historical Mathematics **3 Credits**
Presents the historical development of mathematical concepts in algebra, trigonometry, geometry, discrete mathematics, calculus, probability and statistics. Presents factors that influenced the growth of mathematical knowledge across cultures and times.
Registration Restrictions: Completion of Written Communication Skills and Oral Communication Skills GER requirements and junior or senior standing.
Prerequisites: (MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C) and (MATH A261 with a minimum grade of C or MATH A265 with a minimum grade of C).
Attributes: UAA Integrative Capstone GER.

MATH A424 Advanced Engineering Mathematics: Linear Algebra and Numerical Analysis **3 Credits**
Emphasizes mathematics used in engineering. Includes applications of matrices, vector spaces, inner products, and linear transformations; numerical interpolation, approximation, differentiation, and quadrature; finite difference methods for ordinary and partial differential equations; and numerical stability.
Registration Restrictions: Completion of a programming course with a minimum grade of C
Prerequisites: MATH A302 with a minimum grade of C and PHYS A211 with a minimum grade of C.

MATH A425 Advanced Engineering Mathematics: Partial Differential Equations and Complex Variables **3 Credits**
Emphasizes mathematics used in engineering. Includes Fourier series and transforms, Bessel functions, Legendre polynomials, linear partial differential equations, and complex variables. Develops the wave, heat and potential equations via first principles. Introduces the method of characteristics as applied to shock phenomena.
Registration Restrictions: Completion of a programming course with a minimum grade of C
May Be Stacked With: MATH A625
Prerequisites: MATH A302 with a minimum grade of C and PHYS A211 with a minimum grade of C.

MATH A426 Numerical Analysis **3 Credits**
Introduces numerical solutions of linear systems and eigenvalue problems, nonlinear equations and systems, numerical differentiation and integration, and numerical solutions of ordinary and partial differential equations. Introduces approximation theory, homotopy, and error and stability analysis. Provides theoretical framework for convergence analysis.
Prerequisites: MATH A265 with a minimum grade of C.

MATH A430 Concepts of Topology **3 Credits**
Covers axiomatic definition of a topological space, mappings between topological spaces, continuity, homeomorphism, connectivity, completeness and compactness. Also covers examples and applications from analysis and geometry. May include homotopy (the fundamental group with low-dimensional applications) and/or knot theory.
Prerequisites: MATH A401 with a minimum grade of C.

MATH A431 Introduction to Differential Geometry **3 Credits**
Develops the theory of curves and surfaces in Euclidean spaces. Presents major constructions and theorems including the Frenet-Serret apparatus, geodesics, Gauss's Theorema Egregium and the Gauss-Bonnet theorem. Introduces abstract manifolds.
Prerequisites: MATH A265 with a minimum grade of C and MATH A314 with a minimum grade of C.

MATH A432 Partial Differential Equations **3 Credits**
Presents analysis and solution of partial differential equations. Students will classify and solve initial and boundary value problems for elliptic, hyperbolic and parabolic types. Faculty will select additional topics.
Prerequisites: MATH A302 with a minimum grade of C.

MATH A495A Mathematics Practicum **1-3 Credits**
Provides upper-division mathematics majors the experience of teaching mathematics. The student is responsible for 3 hours per week per credit in the mathematics laboratory or classroom.
Special Note: May be repeated up to a maximum of 3 credits.
Registration Restrictions: Faculty permission required.
Prerequisites: MATH A253 with a minimum grade of C.

MATH A495B Mathematics or Statistics Internship **1-3 Credits**
Provides an opportunity to gain experience in the mathematical or statistics field. The position must be approved by a faculty member. Positions will be limited and competitive.
Registration Restrictions: Junior or senior standing, admission to the Bachelor of Arts in Mathematics or the Bachelor of Science in Mathematics, and at least two upper-division mathematics or statistics courses that count toward the major
Prerequisites: MATH A265 with a minimum grade of C.

MATH A496 Advanced Readings in Mathematics **1-3 Credits**
Students, by mutual agreement with involved faculty, engage in reading, discussion and presentation of advanced mathematical topics.
Registration Restrictions: Junior or senior standing, admission to the Bachelor of Arts in Mathematics or the Bachelor of Science in Mathematics, and at least two upper-division mathematics or statistics courses that count toward the major
Prerequisites: MATH A265 with a minimum grade of C.

MATH A498 Individual Research **1-3 Credits**
Independent research projects under the supervision of a faculty member. The result will be a paper or presentation prepared to publication standards.
Special Note: May be repeated up to a maximum of 6 credits.
Registration Restrictions: Minimum of 6 credits of upper division mathematics courses with a minimum grade of B and faculty permission.

MATH A625 Advanced Engineering Mathematics: Partial Differential Equations and Complex Variables **3 Credits**
Emphasizes mathematics used in engineering. Includes Fourier series and transforms, Bessel functions, Legendre polynomials, linear partial differential equations, and complex variables. Develops the wave, heat and potential equations via first principles. Introduces the method of characteristics as applied to shock phenomena. Additional assignments will include modeling, projects and research.
Registration Restrictions: Completion of a programming course with a minimum grade of C
May Be Stacked With: MATH A425

Mechanical Engineering (ME)

Courses

ME A203 Machine Design I **3 Credits**
Covers the use of solid modeling software to produce three-dimensional parts and assemblies, and two-dimensional engineering drawings. Introduces the concept of parametric modeling as a means to capture and maintain design intent. Covers fabrication techniques used to make machine elements, including an introduction to tolerances and stack-up analysis. Introduces the use of the finite element method to perform stress analysis.
Registration Restrictions: Admission to the Bachelor of Science in Mechanical Engineering
Prerequisites: ES A106 with a minimum grade of C or (ENGR A105A with a minimum grade of C and ENGR A105B with a minimum grade of C).

ME A280 Solid Modeling for Engineers **3 Credits**
Introduces the use of solid modeling in engineering. Covers the process of creating solid parts, assemblies and fabrication-ready drawings in addition to kinematics linkages. Rapid prototyping technologies such as three-dimensional printing will be used as laboratory exercises.
Registration Restrictions: Admission to the Bachelor of Science in Mechanical Engineering.
Prerequisites: ES A106 with a minimum grade of C or (ENGR A105A with a minimum grade of C and ENGR A105B with a minimum grade of C).

ME A303 Machine Design II **3 Credits**
Covers the analysis and design of mechanisms using graphical kinematics. Provides an intermediate examination of manufacturing techniques used for large-scale production of machine components. Introduces the geometric dimensioning and tolerancing (GD&T) system standardized by ASME Y14.5. Teaches analytical and numerical techniques for the analysis of beams, pressure vessels, and welded joints, including the estimation of loads and application of failure criteria. Introduces principles of fracture mechanics to facilitate the prediction of brittle failure.
Registration Restrictions: Admission to the Bachelor of Science in Mechanical Engineering.
Prerequisites: ES A210 with a minimum grade of C and ES A261 with a minimum grade of C and ES A331 with a minimum grade of C or concurrent enrollment and ME A203 with a minimum grade of C and ME A334 with a minimum grade of C or concurrent enrollment.

ME A306 Dynamics of Systems **3 Credits**
Modeling of mechanical, electrical, fluid and thermal elements and systems. Study of free and forced response by the Laplace transform, transfer function and state space models. Time domain and frequency domain responses. Coupled systems, system analogy, sensing and actuation principles.
Registration Restrictions: Admission to the Bachelor of Science in Mechanical Engineering
Crosslisted With: EE A306
Prerequisites: EE A203 with a minimum grade of C or concurrent enrollment and ES A210 with a minimum grade of C and MATH A302 with a minimum grade of C.

ME A308 Instrumentation and Measurement **3 Credits**
Principles of measurement, instrumentation, Laplace transform, Fourier series, transfer function, steady-state response, calibration, and errors. Signal filtering and amplification, data acquisition, recording, and processing. Methods and devices for measuring strain, force, torque, displacement, velocity, acceleration, pressure, fluid flow properties, and temperature.
Registration Restrictions: Admission to the Bachelor of Science in Electrical Engineering or the Bachelor of Science in Mechanical Engineering
Crosslisted With: EE A308.
Prerequisites: MATH A302 with a minimum grade of C and (EE A306 with a minimum grade of C or ME A306 with a minimum grade of C or EE A353 with a minimum grade of C).

ME A313 Mechanical Engineering Thermodynamics **3 Credits**
Continuation of ES A346 (or ES F346), with topics that include power and refrigeration cycles (Rankine, Brayton, Otto, and Diesel), compressible flow (isentropic, shock waves, and flow in ducts with friction), combustion, and gas vapor mixtures.
Registration Restrictions: Admission to the Bachelor of Science in Mechanical Engineering
Prerequisites: ES A346 with a minimum grade of C.

ME A334 Materials Science **3 Credits**
Study and investigate the processing, structures, properties and performance of materials including metals, ceramics, polymers, and composites. Covers materials design and selection for engineering applications.
Registration Restrictions: Admission to the Bachelor of Science in Mechanical Engineering
Prerequisites: CHEM A105 with a minimum grade of C and ME A334L with a minimum grade of C or concurrent enrollment and PHYS A212 with a minimum grade of C.

ME A334L Materials Science Laboratory **1 Credit**
Provides laboratory instruction and experience in the structures, processing, properties, and performance of materials.
Registration Restrictions: Admission to the Bachelor of Science in Mechanical Engineering
Prerequisites: ME A334 with a minimum grade of C or concurrent enrollment and (WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C or WRTG A2W with a minimum grade of C).

ME A341L Fluid Mechanics Lab **1 Credit**
Provides supplemental explanation and practical exercises applying physical properties and behavior of fluids for mechanical engineering majors, including hydrostatics, fluid forces, pipe flow, fluid machinery, and flow through a wind tunnel.
Registration Restrictions: Admission to the Bachelor of Science in Mechanical Engineering
Prerequisites: ES A341 with a minimum grade of C or concurrent enrollment and (WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C or WRTG A2W with a minimum grade of C).

ME A403 Machine Design III **3 Credits**
Introduces methods for analyzing damage evolution in components subjected to cyclic loading conditions. Teaches analytical and numerical techniques for the analysis of non-permanent joints, shafts, bearings, gears, clutches, brakes, couplings, springs, belts, and chains. Provides an overview of the typical applications and design considerations associated with the aforementioned machine elements.
Registration Restrictions: Admission to the Bachelor of Science in Mechanical Engineering
Prerequisites: ES A331 with a minimum grade of C and MATH A302 with a minimum grade of C and ME A303 with a minimum grade of C and ME A334 with a minimum grade of C.

ME A408 Mechanical Vibrations **3 Credits**
Modeling of vibratory mechanical systems with single and multiple degrees of freedom. Study of free and forced vibrations with or without damping by lumped-parameter methods and finite element analysis. Vibrations of rotor systems and vibration monitoring.
Special Note: Not available for credit to students who have completed ME A608.
Registration Restrictions: Admission to the Bachelor of Science in Mechanical Engineering
May Be Stacked With: ME A608
Prerequisites: (EE A306 with a minimum grade of C or ME A306 with a minimum grade of C) and ES A331 with a minimum grade of C.

ME A414 Thermal System Design **3 Credits**
Introduces the design of power and space conditioning systems, energy conversion, heating, ventilating, air conditioning, refrigeration (HVAC&R), and steady-state simulation of thermal systems.
Registration Restrictions: Admission to the Bachelor of Science in Mechanical Engineering
Prerequisites: ES A341 with a minimum grade of C and ES A346 with a minimum grade of C.

ME A414L Thermal System Design Lab **1 Credit**
Provides supplemental explanation and practical exercises applying heat and mass transfer concepts to engineering problems including steady state and transient conduction. Provides supplemental explanation and practical exercises applying thermal system design and heating, ventilation and air conditioning (HVAC) concepts including refrigeration systems, psychrometric applications, air handling unit designs, pipe and pump designs, and fan and air distribution designs.
Registration Restrictions: Admission to the Bachelor of Science in Mechanical Engineering
Prerequisites: ME A414 with a minimum grade of C or concurrent enrollment and ME A441 with a minimum grade of C or concurrent enrollment and (WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C or WRTG A2W with a minimum grade of C).

ME A421 Engineering Finite Element Analysis **3 Credits**
Covers the mathematical formulation of the finite element analysis (FEA) method; elemental matrices, nodal loads, assembly, and solution of finite element problems; static, modal, and dynamic solid-mechanics FEA problems; heat transfer, fluid mechanics, and electromagnetic FEA problems; and FEA software: preprocessing, processing, and postprocessing.
Special Note: Not available for credit to students who have completed ME A621. Recommended for students to take MATH A314.
May Be Stacked With: ME A621
Prerequisites: ES A210 with a minimum grade of C and ES A331 with a minimum grade of C and ES A341 with a minimum grade of C and ES A346 with a minimum grade of C.

ME A432 Analytical Dynamics **3 Credits**
Kinematics and kinetics of rigid bodies, introduction to analytical mechanics, Lagrange's equations and Hamiltonian mechanics. Applications to engineering problems.
Special Note: Not available for credit to students who have completed ME A632.
Registration Restrictions: Admission to the Bachelor of Science in Mechanical Engineering.
May Be Stacked With: ME A632
Prerequisites: ES A210 with a minimum grade of C and MATH A302 with a minimum grade of C.

ME A434 Materials Selection for Design **3 Credits**
Evaluates materials selection early in the design process and the associated design degrees of freedom. Covers procedures to select optimum material(s) under multiple constraints resulting from functional, reliability, safety, cost and environmental issues.
Registration Restrictions: Admission to the Bachelor of Science in Mechanical Engineering
Prerequisites: ES A331 with a minimum grade of C and ME A334 with a minimum grade of C.

ME A438 Design of Mechanical Engineering Systems **3 Credits**
Capstone course in which mechanical engineering students design a mechanical engineering component or system starting with the initial design specification to the implementation and testing. Students apply knowledge and skills learned in their undergraduate curriculum.
Registration Restrictions: Senior standing, admission to the Bachelor of Science in Mechanical Engineering or instructor approval, and completion of GER Tier 1 (basic college-level skills) courses
Prerequisites: ME A403 with a minimum grade of C or concurrent enrollment.
Attributes: UAA Integrative Capstone GER.

ME A441 Heat and Mass Transfer **3 Credits**
Application of heat and mass transfer concepts to engineering problems including steady state and transient conduction, numerical analysis of heat transfer problems, laminar and turbulent free and forced convection, and black body and real surface radiation.
Registration Restrictions: Admission to the Bachelor of Science in Mechanical Engineering
Prerequisites: ES A341 with a minimum grade of C and ES A346 with a minimum grade of C and MATH A302 with a minimum grade of C.

ME A441L Heat and Mass Transfer Lab **1 Credit**
Provides supplemental explanation and practical exercises applying heat and mass transfer concepts to engineering problems including steady state and transient conduction, numerical analysis of heat transfer problems, laminar and turbulent free and forced convection, and black body and real surface radiation.
Registration Restrictions: Admission to the Bachelor of Science in Mechanical Engineering
Prerequisites: ME A441 with a minimum grade of C or concurrent enrollment.

ME A442 Advanced Fluid Mechanics **3 Credits**
Covers advanced topics in fluid mechanics, including derivation of flow equations, ideal fluid flows, incompressible viscous flows and compressible inviscid flows.
Special Note: Not available for credit to students who have completed ME A642.
Registration Restrictions: Admission to the Bachelor of Science in Mechanical Engineering
May Be Stacked With: ME A642
Prerequisites: ES A341 with a minimum grade of C and MATH A302 with a minimum grade of C.

ME A451 Aerodynamics **3 Credits**
Covers fundamentals of aerodynamics including boundary layer theories, aerodynamics of lifting flow over airfoils, wings of finite span and airfoil theory in subsonic, transonic, and supersonic flows.
Special Note: Not available for credit to students who have completed ME A651.
Registration Restrictions: Admission to the Bachelor of Science in Mechanical Engineering
May Be Stacked With: ME A651
Prerequisites: ES A341 with a minimum grade of C and ES A346 with a minimum grade of C and MATH A302 with a minimum grade of C.

ME A452 Introduction to Astrodynamics **3 Credits**
Provides basic gravitation and orbital theory principles for spacecraft mission design. Includes maneuvers and mission profiles, orbit perturbations, trajectories, and selecting optimal orbit, rendezvous, and transfers to accomplish the ultimate goals of the mission. Reviews particle dynamics, classical orbital elements, fundamental transformation matrices, ground tracks, Hohmann transfer, and coplanar rendezvous.
Registration Restrictions: Admission to the Bachelor of Science in Mechanical Engineering
Prerequisites: EE A306 with a minimum grade of C or ME A306 with a minimum grade of C.

ME A454 Manufacturing Design **3 Credits**
Covers the capabilities and limitations of different manufacturing processes in terms of their feasibility, capital needs, economic considerations, and environmental impact. Analyzes the steps in processing a part and taking into account the geometrical complexity, process capabilities, surface finish, and tolerances for assembly. Design parts for machining, molding, casting, and sheet metal operations. Introduces methods for applied design for manufacturing and assembly.
Registration Restrictions: Admission to the Bachelor of Science in Mechanical Engineering
Prerequisites: ES A331 with a minimum grade of C and ME A203 with a minimum grade of C and ME A334 with a minimum grade of C.

ME A456 Renewable Energy Systems Engineering **3 Credits**
The study and design of renewable energy systems from a technical engineering standpoint. Solar, hydrokinetic, conventional hydroelectric, wind, geothermal, and biological energy systems will be examined. Additional topics include feasibility analysis and energy storage techniques.
Special Note: Not available for credit to students who have completed ME A656.
Registration Restrictions: Admission to the Bachelor of Science in Mechanical Engineering
May Be Stacked With: ME A656
Prerequisites: ES A341 with a minimum grade of C and ES A346 with a minimum grade of C.

ME A459 Fracture Mechanics **3 Credits**
Presents theoretical, experimental, and applied fracture of solids, structures, and machines, subcritical crack growth including fatigue, creep, and corrosion, embrittlement, safety, and life cycle design and analysis. Uses studies to illustrate the course topics.
Special Note: Not available for credit to students who have completed ME A659.
Registration Restrictions: Admission to the Bachelor of Science in Mechanical Engineering
May Be Stacked With: ME A659
Prerequisites: ES A331 with a minimum grade of C.

ME A460 Turbomachinery **3 Credits**
Introduces the application of energy, momentum and continuity equations to designing turbomachinery such as pumps, compressors and turbines.
Special Note: Not available for credit to students who have completed ME A660.
Registration Restrictions: Admission to the Bachelor of Science in Mechanical Engineering or instructor approval
May Be Stacked With: ME A660
Prerequisites: ES A341 with a minimum grade of C and (ES A341L with a minimum grade of C or ME A341L with a minimum grade of C) and ES A346 with a minimum grade of C.

ME A471 Automatic Control **3 Credits**
Linear system representation by transfer functions, signal flow graphics and state equations. Feedback, time and frequency response of linear systems. Stability analysis by Routh-Hurwitz criterion and frequency domain methods. Specifications of higher order linear systems. System design and compensation.
Crosslisted With: EE A471.
Prerequisites: (EE A306 with a minimum grade of C or ME A306 with a minimum grade of C or EE A353 with a minimum grade of C) and ES A210 with a minimum grade of C and MATH A302 with a minimum grade of C.

ME A608 Mechanical Vibrations **3 Credits**
Models vibratory mechanical systems with single and multiple degrees of freedom. Includes study of free and forced vibrations with or without damping by lumped-parameter methods and finite element analysis. Vibrations of rotor systems and vibration monitoring.
Special Note: Not available for credit to students who have completed ME A408.
Registration Restrictions: Graduate standing or instructor approval
May Be Stacked With: ME A408

ME A621 Engineering Finite Element Analysis **3 Credits**
Covers the mathematical formulation of the finite element analysis (FEA) method; elemental matrices, nodal loads, assembly, and solution of finite element problems; static, modal and dynamic solid-mechanics FEA problems; heat transfer, fluid mechanics, and electromagnetic FEA problems; and FEA software: preprocessing, processing, and postprocessing.
Special Note: Not available for credit to students who have completed ME A421.
Registration Restrictions: Graduate standing or instructor approval
May Be Stacked With: ME A421

ME A630 Advanced Mechanics of Materials **3 Credits**
Covers advanced topics in the mechanics of solids, including both equilibrium and energy approaches. Provides in-depth study of topics introduced in previous courses such as bending of beams, torsion, and plane stress and strain. Additionally covers 3-D stress and strain analysis, yield and failure criteria, and time-dependent deformations.
Registration Restrictions: Graduate standing and instructor permission.
Crosslisted With: CE A630.

ME A632 Analytical Dynamics **3 Credits**
Topics include kinematics and kinetics of rigid bodies, introduction to analytical mechanics, Lagrange's equations and Hamiltonian mechanics. Students will engage with applications to engineering problems.
Special Note: Not available for credit to students who have completed ME A432. Additional work is required at the graduate level.
Registration Restrictions: Graduate standing or instructor approval
May Be Stacked With: ME A432

ME A642 Advanced Fluid Mechanics **3 Credits**
Covers advanced topics in fluid mechanics, including derivation of flow equations, ideal fluid flows, incompressible viscous flows and compressible inviscid flows.
Special Note: Not available for credit to students who have completed ME A442.
Registration Restrictions: Graduate standing or instructor approval
May Be Stacked With: ME A442

ME A651 Aerodynamics **3 Credits**
Covers fundamentals of aerodynamics including boundary layer theories, aerodynamics of lifting flow over airfoils, wings of finite span and airfoil theory in subsonic, transonic, and supersonic flows. Includes a literature review and research on selected aerodynamics topics.
Special Note: Not available for credit to students who have completed ME A451.
Registration Restrictions: Graduate standing or instructor approval
May Be Stacked With: ME A451

ME A656 Renewable Energy Systems Engineering **3 Credits**
The study and design of renewable energy systems from a technical engineering standpoint. Solar, hydrokinetic, conventional hydroelectric, wind, geothermal, and biological energy systems will be examined. Additional topics include feasibility analysis and energy storage techniques.
Special Note: Not available for credit to students who have completed ME A456. ME A656 includes additional reviews of articles and a written report.
Registration Restrictions: Graduate standing or instructor approval
May Be Stacked With: ME A456

ME A659 Fracture Mechanics **3 Credits**
Presents theoretical, experimental, and applied fracture of solids, structures, and machines, subcritical crack growth including fatigue, creep, and corrosion, embrittlement, safety, and life cycle design and analysis. Case studies are used to illustrate the course topics.
Special Note: Not available for credit to students who have completed ME A459. Additional work is required at the graduate level.
Registration Restrictions: Graduate standing or instructor approval
May Be Stacked With: ME A459

ME A660 Turbomachinery **3 Credits**
Introduces the application of energy, momentum and continuity equations to designing turbomachinery, such as pumps, compressors and turbines.
Special Note: Not available for credit to students who have completed ME A460.
Registration Restrictions: Graduate standing or instructor approval
May Be Stacked With: ME A460

ME A664 Corrosion Processes and Engineering **3 Credits**
Covers corrosion processes and mechanisms. Topics include the concepts, materials, and mechanisms of corrosion with application to engineering design for corrosion prevention.
Registration Restrictions: Graduate standing or instructor approval
Prerequisites: ME A334 with a minimum grade of C.

ME A672 Advanced Linear Systems **3 Credits**
Presents a state space linear algebra approach to multiple input, multiple output systems. Concepts of controllability and observability motivate design techniques for optimal open loop and closed loop systems. Analysis and design of optimal feedback control systems and design of observers and estimators are presented.
Special Note: Not available for credit to students who have completed EE A472.
Registration Restrictions: Graduate standing or instructor permission
May Be Stacked With: EE A472

ME A686 Project **3 Credits**
Project arranged among the advisor, graduate advisory committee and student to solve a practical engineering problem.
Registration Restrictions: Graduate standing and instructor permission

ME A699 Thesis **1-6 Credits**
Individual study of an advanced engineering problem resulting in a thesis.
Registration Restrictions: Graduate standing and instructor permission

Medical Assisting (MA)

Courses

MA A101 Medical Terminology **3 Credits**
Introduces root forms, prefixes, suffixes, abbreviations and acronyms of common medical terms by body systems. Emphasis is placed on spelling and pronunciation of words used to describe anatomy and physiology, diseases, diagnostic and laboratory tests, and treatment with opportunities to connect to real-world clinical settings.

MA A104 Essentials of Human Disease **3 Credits**
Provides a systematic approach to identify major diseases and clinical disorders with an emphasis on signs and symptoms, etiology, diagnosis and treatment within each body system and their impact on other organ systems.
Prerequisites: MA A101 with a minimum grade of C.

MA A120 Administrative Procedures **4 Credits**
Outlines the administrative duties from concept to practice for a patient-focused, efficiently run office. Emphasizes professionalism. Topics include medical law and ethics, record management, practice finances, and a variety of patient interactions common to a clinical practice.

MA A220 Medical Office Coding **3 Credits**
Provides a systematic introduction to procedural and diagnostic coding in the ambulatory (outpatient) healthcare setting to include sequencing, conventions and guidelines. Presents an overview of legal (fraud and abuse) and ethical issues as they pertain to coding and billing. Emphasizes the application of knowledge as demonstrated through performance of procedural and diagnostic coding activities.
Prerequisites: MA A101 with a minimum grade of C and MA A104 with a minimum grade of C or concurrent enrollment and (BIOL A100 with a minimum grade of C or (BIOL A111 with a minimum grade of C and BIOL A111L with a minimum grade of C and BIOL A112 with a minimum grade of C and BIOL A112L with a minimum grade of C)).

MA A235 Medical Insurance, Billing and Healthcare Documentation **3 Credits**
Examines outpatient healthcare reimbursement practices including the fundamentals of medical insurance documentation, insurance claims processing and billing. Reviews government and private insurance carriers and summarizes legal and ethical issues. Emphasizes the Centers for Medicare and Medicaid (CMS)-1500 claim form, successful claims management and electronic health record (EHR) documentation.

MA A250 Clinical Procedures I **3 Credits**
Introduces theory and concepts of clinical duties performed by medical assistants in outpatient facilities. Includes asepsis, infection control, maintenance of the exam room and medical equipment, vital signs, assisting with routine patient care and patient teaching.
Special Note: Student must also be registered in MA A250L.
Corequisites: MA A250L.

MA A250L Clinical Procedures Lab I **1 Credit**
Introduces hands-on instruction and practice of clinical duties performed by medical assistants in outpatient facilities including asepsis, infection control, maintenance of the exam room and medical equipment, vital signs, assisting with routine patient care and patient teaching.
Special Note: Students must also be registered in MA A250. May be repeated once for credit. Students who wish to register for this course a second time after already completing the lecture will need a registration override from the instructor.
Corequisites: MA A250.

MA A255 Clinical Procedures II **3 Credits**
Instruction continues in the theory and concepts of clinical duties performed by medical assistants in outpatient facilities. Includes assisting with minor office surgery, dosage calculation and medication administration, Clinical Laboratory Improvement Amendments (CLIA)-waived laboratory testing, venipuncture, cardiopulmonary procedures and patient teaching.
Special Note: Student must also be registered in MA A255L.
Prerequisites: MA A250 with a minimum grade of C and MA A250L with a minimum grade of C.
Corequisites: MA A255L.

MA A255L Clinical Procedures Lab II **1 Credit**
Continues instruction of hands-on clinical duties performed by medical assistants in outpatient facilities. Includes assisting with minor office surgery, dosage calculation and medication administration, Clinical Laboratory Improvement Amendments (CLIA)-waived laboratory testing, venipuncture, cardiopulmonary procedures and patient teaching.

Special Note: Student must also be registered in MA A255.
Prerequisites: MA A250 with a minimum grade of C and MA A250L with a minimum grade of C.
Corequisites: MA A255.

MA A295 Medical Assisting Practicum **5 Credits**
Provides 240 hours of uncompensated, supervised work in an ambulatory medical clinic office setting. Students will observe, assist and complete entry-level administrative duties and clinical procedures to apply and perform psychomotor, affective and cognitive competencies as final preparation for employment. Learning is enhanced by discussions, assignments and evaluation tools.
Prerequisites: MA A120 with a minimum grade of C and MA A250 with a minimum grade of C and MA A255 with a minimum grade of C.

MA A320 Medical Office Advanced Coding **2 Credits**
Provides comprehensive, in-depth analysis and coding practice of procedural and diagnostic case studies found in ambulatory care settings.
Special Note: May be repeated once for credit.
Prerequisites: MA A220 with a minimum grade of C.

Medical Lab Technology (MEDT)

Courses

MEDT A132 Phlebotomy and Specimen Processing Techniques **2 Credits**
Introduces the basic terms, concepts, procedures and equipment used in phlebotomy. Includes professional ethics and laws.
Registration Restrictions: Departmental approval
Prerequisites: Accuplacer-Reading Comp with a score of 120.

MEDT A132L Phlebotomy and Specimen Processing Techniques Lab **2 Credits**
Develops skills in safely performing phlebotomy and specimen processing techniques.
Registration Restrictions: Departmental approval
Prerequisites: MEDT A132 with a minimum grade of C or concurrent enrollment.

MEDT A133 Basic Techniques in Laboratory Medicine **2 Credits**
Introduces the basic terms, concepts, procedures and equipment used in a clinical laboratory. Includes regulatory agencies, laboratory measurements and calculations, laboratory information systems, and quality assessment.
Prerequisites: MEDT A132 with a minimum grade of C or concurrent enrollment and (BIOL A112 with a minimum grade of C and BIOL A112L with a minimum grade of C) and CHEM A104 with a minimum grade of C and CHEM A104L with a minimum grade of C.

MEDT A134 Immunology and Serology **3 Credits**
Introduces concepts of the immune system, including development, function and failures. Discusses principles of antigen-antibody reactions and serologic procedures performed in the clinical laboratory to diagnose diseases.
Prerequisites: MEDT A132 with a minimum grade of C or concurrent enrollment and BIOL A112 with a minimum grade of C and BIOL A112L with a minimum grade of C and CHEM A104 with a minimum grade of C and CHEM A104L with a minimum grade of C.

MEDT A195A Phlebotomy Practicum **4 Credits**
Applies principles of safety, specimen requisitioning, collection, handling and processing techniques to patient testing in a clinical laboratory. Prepares students for entry-level employment as a phlebotomist.
Registration Restrictions: Departmental approval
Prerequisites: MEDT A132 with a minimum grade of C and MEDT A132L with a minimum grade of C.

MEDT A195C Phlebotomy Practicum **6 Credits**
Provides clinical practicum in area hospitals/facilities for phlebotomy. Applies didactic theories of phlebotomy techniques. Prepares students for certification exam.
Special Note: This course is for distance phlebotomy students who have not taken the in-person course and practiced phlebotomy skills.
Registration Restrictions: Departmental approval
Prerequisites: MEDT A132 with a minimum grade of C.

MEDT A202 Clinical Chemistry **4 Credits**
Develops skills in performing chemical analysis of blood and other body fluids. Discusses and practices specific testing procedures for different organ systems and analytes. Presents correlation of laboratory results with clinical findings. Emphasizes quality assessment.
Registration Restrictions: Admission to the Associate of Applied Science in Medical Laboratory Technology or the Bachelor of Science in Medical Laboratory Science
Prerequisites: MEDT A132 with a minimum grade of C and MEDT A132L with a minimum grade of C and MEDT A133 with a minimum grade of C and MEDT A134 with a minimum grade of C.
Corequisites: MEDT A202L.

MEDT A203 Clinical Microbiology **6 Credits**
Emphasizes culture media, biochemical tests, immunoassays, and staining techniques used in the identification and susceptibility testing for microorganisms of medical importance to humans. Includes bacteriology and an introduction to parasitology, mycology and virology.
Registration Restrictions: Admission to the Associate of Applied Science in Medical Laboratory Technology or the Bachelor of Science in Medical Laboratory Science
Prerequisites: MEDT A132 with a minimum grade of C and MEDT A132L with a minimum grade of C and MEDT A133 with a minimum grade of C and MEDT A134 with a minimum grade of C.
Corequisites: MEDT A203L.

MEDT A204 Hematology and Coagulation **6 Credits**
Emphasizes the theory and practice of manual and automated procedures in hematology and coagulation and the relationship of these procedures to the diagnosis of disease.
Registration Restrictions: Admission to the Associate of Applied Science in Medical Laboratory Technology or the Bachelor of Science in Medical Laboratory Science
Prerequisites: MEDT A132 with a minimum grade of C and MEDT A132L with a minimum grade of C and MEDT A133 with a minimum grade of C and MEDT A134 with a minimum grade of C.
Corequisites: MEDT A204L.

MEDT A208 Urine and Body Fluid Analysis **3 Credits**
Examines the physical, chemical and microscopic properties of urine and other body fluids. Correlates selected chemical and microscopic constituents of urine and other body fluids with various disease states.
Registration Restrictions: Admission to the Associate of Applied Science in Medical Laboratory Technology or the Bachelor of Science in Medical Laboratory Science
Prerequisites: MEDT A132 with a minimum grade of C and MEDT A132L with a minimum grade of C and MEDT A133 with a minimum grade of C and MEDT A134 with a minimum grade of C.
Corequisites: MEDT A208L.

MEDT A211 Blood Banking **4 Credits**
Introduces the theory of antigen-antibody reactions as it relates to blood grouping and typing, antibody detection and compatibility testing. Discusses blood donor screening and component preparations, storage and transportation.
Registration Restrictions: Admission to the Associate of Applied Science in Medical Laboratory Technology or the Bachelor of Science in Medical Laboratory Science
Prerequisites: MEDT A132 with a minimum grade of C and MEDT A132L with a minimum grade of C and MEDT A133 with a minimum grade of C and MEDT A134 with a minimum grade of C.
Corequisites: MEDT A211L.

MEDT A250 Cultural Diversity in Health Care **1 Credit**
Challenges students to examine their cultural biases and to recognize the importance of cultural awareness in providing exceptional medical care. Examines community, personal and family relationships through the lens of cross-cultural health and healing practices. Introduces health care consumers from various cultural backgrounds.

MEDT A301 Molecular and Emerging Diagnostics **3 Credits**
Examines the practice of molecular biology and its applications in the clinical laboratory. Topics include human genetics; isolation, amplification, discrimination and detection techniques for nucleic acids; and the design and operation of a molecular diagnostic laboratory. Introduces emerging diagnostics and their applications in the clinical laboratory.
Registration Restrictions: Admission to the Associate of Applied Science in Medical Laboratory Technology or the Bachelor of Science in Medical Laboratory Science
Prerequisites: MEDT A203 with a minimum grade of C and MEDT A204 with a minimum grade of C.

MEDT A302 Clinical Laboratory Education and Management **4 Credits**
Introduces educational and management principles and tools applicable to laboratory medicine and allied health science professions. Provides basic management skills necessary to function in a technologically dynamic environment. Topics include the educational process and teaching methods and basic managerial subjects including human resources and financial management. The course is designed for students with an educational or working background in the clinical laboratory or other health care field.
Registration Restrictions: Completion of GER Tier 1 (basic college-level skills) courses, junior standing and departmental approval.
Attributes: UAA Integrative Capstone GER.

MEDT A303 Advanced Clinical Microbiology **6 Credits**
Examines microorganisms of medical importance to humans. Includes unusual pathogenic and anaerobic bacteriology, mycology, parasitology, and virology with emphasis on identification, susceptibility testing, and epidemiology.
Registration Restrictions: Admission to the Bachelor of Science in Medical Laboratory Science
Prerequisites: MEDT A203 with a minimum grade of C.
Corequisites: MEDT A303L.

MEDT A306 Advanced Immunology and Blood Banking **3 Credits**
Emphasizes advanced concepts in immunology and blood banking to solve complex problems. Topics include current transfusion practices, recent advances in transfusion medicine, human leukocyte antigen (HLA) testing, autoimmune disorders and cell identification using flow cytometry. Prepares students to perform and interpret tests done during the serology and blood bank rotations of their clinical practicum (MEDT A495).
Registration Restrictions: Departmental approval
Prerequisites: MEDT A211 with a minimum grade of C.
Corequisites: MEDT A306L.

MEDT A307 Clinical Correlations **2 Credits**
Applies knowledge, critical thinking and problem solving skills to case studies in all of the laboratory disciplines. Emphasizes clinical interpretation and correlation at an advanced level.
Registration Restrictions: Admission to the Bachelor of Science in Medical Laboratory Science
Prerequisites: MEDT A202 with a minimum grade of C and MEDT A203 with a minimum grade of C and MEDT A204 with a minimum grade of C and MEDT A208 with a minimum grade of C and MEDT A211 with a minimum grade of C.

MEDT A395 Medical Laboratory Technology Practicum **12 Credits**
Applies knowledge and skills acquired in medical laboratory science (MEDT) courses to laboratory testing at a clinical facility. Supervised by UAA faculty and clinical laboratory personnel.
Registration Restrictions: Admission to the Associate of Applied Science in Medical Laboratory Technology
Prerequisites: MEDT A202 with a minimum grade of C and MEDT A203 with a minimum grade of C and MEDT A204 with a minimum grade of C and MEDT A208 with a minimum grade of C and MEDT A211 with a minimum grade of C.

MEDT A401 Introduction to Research **2 Credits**
Applies research and presentation methods to current topics in medical laboratory science.
Registration Restrictions: Admission to the Bachelor of Science in Medical Laboratory Science
Prerequisites: (STAT A200 with a minimum grade of C or STAT A253 with a minimum grade of C) and (WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C).

MEDT A402 Medical Laboratory Science Honors: Quality Assessment Project **3 Credits**
Applies basic research techniques and quality assessment principles to address a quality care issue.
Registration Restrictions: Admission to the Bachelor of Science in Medical Laboratory Science and department approval
Prerequisites: MEDT A302 with a minimum grade of C and MEDT A401 with a minimum grade of C or concurrent enrollment.

MEDT A495 Medical Laboratory Science Practicum **11 Credits**
Integrates knowledge and applies skills acquired in medical laboratory science (MEDT) courses to laboratory testing at a clinical facility. Students are supervised by UAA faculty and clinical laboratory personnel.
Registration Restrictions: Admission to the Bachelor of Science in Medical Laboratory Science and department approval
Prerequisites: MEDT A301 with a minimum grade of C and MEDT A302 with a minimum grade of C and MEDT A303 with a minimum grade of C and MEDT A306 with a minimum grade of C and MEDT A307 with a minimum grade of C.

Medicine Doctorate-WWAMI (MD)

Courses

MD A601 Foundations of Clinical Medicine: Immersion **2 Credits**
Boot camp in the fundamental clinical skills of medicine including doctor-patient communication, medical interviewing, the content and structure of the medical database, basic physical exam, and the culture and professionalism of medicine.
Registration Restrictions: Admission to WWAMI MD program.

MD A602 Foundations of Clinical Medicine: Primary Care Practicum **1-3 Credits**
Introduces medical students to continuity of care by working with practicing physicians. Course demonstrates how to work with individuals to help them achieve optimal health, and includes topics in primary and preventative care, geriatrics, rehabilitation, palliative care, behavioral health, and pain management.
Special Note: May be taken a maximum of four times for credit.
Registration Restrictions: Admission to WWAMI MD program

MD A603 Foundations of Clinical Medicine: Clinical Skills **1-3 Credits**
Introduces the physician role including communication skills, interviewing techniques, physical examination, documentation and clinical reasoning. Course will include hospital-based patient encounters to develop comfort with the physician role.
Special Note: May be taken for a maximum of four times for credit.
Registration Restrictions: Admission to WWAMI MD program

MD A604 Medicine, Health and Society I **1 Credit**
Introduces core concepts needed for clinical practice in the changing healthcare environment. Explores areas related to humanism in medicine, including the themes of ethics, health systems, systems improvements, health equity, diversity, social determinants of health, and global population and public health.
Special Note: This course is taught in a 1-week intensive format.
Registration Restrictions: Graduate standing and admission to the WWAMI School of Medical Education

MD A605 Medicine, Health and Society II **3 Credits**
Emphasizes core concepts needed for clinical practice in the changing healthcare environment. Explores areas related to humanism in medicine, including the themes of health systems, systems improvements, diversity, health equity, ethics, social determinants of health, and global population and public health.
Special Note: This course is taught in a 3-week intensive format.
Registration Restrictions: Graduate standing and admission to the WWAMI School of Medical Education
Prerequisites: MD A604 with a minimum grade of P.

MD A606 Ecology of Health and Medicine - Foundations 3 **1 Credit**
Emphasizes core concepts needed for clinical practice in the changing healthcare environment. Explores areas related to humanism in medicine, including the themes of diversity; health equity; ethics; professionalism; and determinants of health, such as interplay of components of Ecosocial Model, ethical case analysis, advocacy and integrity, high-functioning teams, influence of individual factors on health, health economics, patient safety, health metrics, and application of systems thinking.
Special Note: This course is taught in a 1-week intensive format.
Registration Restrictions: Admission to WWAMI MD program
Prerequisites: MD A604 and MD A605.

MD A607 Ecology of Health and Medicine - Foundations 4 **1 Credit**
Emphasizes core concepts needed for clinical practice in the changing healthcare environment. Explores areas related to humanism in medicine, including the themes of diversity; health equity; ethics; professionalism; and determinants of health, such as accountability in health disparities, ethical case analysis, excellence, conflict resolution, primary care and rural medicine systems, informed medical decision making, advanced patient safety, global burden of disease, application of systems thinking.
Special Note: This course is taught in a 1-week intensive format.
Registration Restrictions: Admission to WWAMI MD program
Prerequisites: MD A604 and MD A605 and MD A606.

MD A608 Clinical Epidemiology **2 Credits**
Introduces methods for identifying, interpreting and applying high quality, relevant published medical research and evidence to the practice of clinical medicine for effective preventative and therapeutic interventions. Topics include research study design of randomized trials, measures of effect, interpretation of causal relationships, contexts for screening and diagnosis, interpretation of test results, application of statistical measures, systematic reviews and meta-analyses.
Special Note: This course is taught on a compressed schedule.
Registration Restrictions: Admission to WWAMI MD Program

MD A610 Fundamentals of Medical Science & Research **9 Credits**
Introduces foundational basic science and research concepts in medicine. Covers molecular and cell biology; human physiology; genetics; biochemistry; community health and disease; clinical epidemiology; research study design and data analysis. Incorporates fundamental principles of anatomy, pathology, pharmacology, and medicine in society.
Registration Restrictions: Graduate standing and admission to the WWAMI School of Medical Education

MD A620 Infections & Immunity **7 Credits**
Introduces the immune system, microbiology, infectious diseases, inflammation and repair. Discusses the pathogenesis and immunity of infectious disease, immunodeficiencies, hypersensitivity, autoimmunity, and the basis of immunologic diagnostics. Integrates relevant principles in anatomy, pathology, pharmacology, and medicine in society.
Registration Restrictions: Graduate standing and admission to the WWAMI School of Medical Education

MD A630 Cardiovascular System **5 Credits**
Introduces cardiovascular biology and medicine. Covers cardiac electrophysiology, cardiac muscle mechanics, myocardial infarction, and cardiac repair. Integrates relevant principles of thoracic anatomy, physiology, radiology, pathology, pharmacology, and surgery.
Registration Restrictions: Graduate standing and admission to the WWAMI School of Medical Education

MD A640 Cancer, Hormones and Blood **6 Credits**
Introduces fundamental principles of endocrinology, hematology, and oncology. Covers endocrine regulation of metabolism; normal physiology and pathophysiologic mechanisms responsible for clinically important endocrine disorders; disturbances in red cell, white cell, and platelet production; abnormalities of hemostasis; and malignant neoplasia. Integrates relevant principles of anatomy, pathology and pharmacology, and medicine in society.
Registration Restrictions: Graduate standing and admission to the WWAMI School of Medical Education

MD A641 Muscles, Joints, Bones & Skin **5 Credits**
Introduces fundamental principles of the musculoskeletal system and dermatology. Covers anatomical structures of limbs, spine and skin, disorders of the musculoskeletal system and skin, and the pathophysiology of trauma, aging, and relevant infection and inflammation. Integrates relevant principles of anatomy, histology, pathology, imaging and pharmacology.
Registration Restrictions: Graduate standing and admission to the WWAMI School of Medical Education

MD A650 Head, Neck & Gut **5 Credits**
Introduces fundamental principles of head and neck anatomy and the gastrointestinal (GI) system. Covers structure and function of ears, nose, throat, and gastrointestinal tract; pathophysiology of digestion and hepatic function; the principles and practice of clinical nutrition. Integrates the relevant principles of anatomy, radiology, pathology, and pharmacology.
Registration Restrictions: Graduate standing and admission to the WWAMI School of Medical Education

MD A653 Respiration and Regulation **6 Credits**
Introduces fundamental principles of the respiratory and renal-urinary systems in medicine. Topics covered include ventilation mechanics; obstructive, restrictive, and pulmonary-vascular diseases; renal function and common kidney diseases. Integrates relevant principles of anatomy, physiology, radiology, pathology and pharmacology.
Registration Restrictions: Graduate standing and admission to WWAMI School of Medical Education

MD A660 Mind, Brain and Behavior **7 Credits**
Presents organization and function of the central nervous system focusing on a systematic approach to the differential diagnosis and management of major neurologic, psychiatric, and behavioral disorders. Covers physiologic and pathophysiologic mechanisms, and current therapeutic approaches to disease integrating relevant principles of anatomy, physiology, radiology, pathology, and pharmacology.
Special Note: This course is taught on a compressed 7-week schedule.
Registration Restrictions: Graduate standing and admission to the WWAMI School of Medical Education

MD A670 Reproduction and Development **5 Credits**
Introduces normal and abnormal human development, reproductive functions including ova and sperm development, menstruation, normal pregnancy, and labor and delivery along with infertility, family planning techniques, and reproductive aging; integrates relevant fundamental principles in pelvic anatomy, pathology, histology, imaging, and pharmacology.
Registration Restrictions: Graduate standing and admission to the WWAMI School of Medical Education

MD A681 Integration 1 **1 Credit**
Promotes cognitive integration of basic science and clinical content presented within the WWAMI curriculum preceding this course. This is the first of three one-week courses where learners will consolidate previously learned content while analyzing and applying metacognitive skills to develop a holistic framework linking basic science knowledge to clinical features of human health and disease.
Registration Restrictions: Graduate standing and admission to the WWAMI School of Medical Education

MD A682 Integration 2 **1 Credit**
Promotes cognitive integration of basic science and clinical content presented within the WWAMI curriculum preceding this course. This is the second of three one-week courses where learners will consolidate previously learned content while analyzing and applying metacognitive skills to develop a holistic framework linking basic science knowledge to clinical features of human health and disease.
Registration Restrictions: Graduate standing and admission to the WWAMI School of Medical Education

MD A683 Integration 3 **1 Credit**
Promotes cognitive integration of basic science and clinical content presented within the WWAMI curriculum preceding this course. This is the third of three one-week courses where learners will consolidate previously learned content while analyzing and applying metacognitive skills to develop a holistic framework linking basic science knowledge to clinical features of human health and disease.
Registration Restrictions: Graduate standing and admission to the WWAMI School of Medical Education

MD A698A Independent Investigative Inquiry - III **4 Credits**
Engages students in research activities in either hypothesis-driven, rural/underserved experience-driven, global-health experience-driven, simulation development-driven, or systematic literature review that will foster the skills of life-long learning essential for practicing physicians in the 21st century. Each student selects and independently investigates a topic of particular interest to them within one of these frameworks following faculty approval and guidance.
Special Note: Research conducted during summer between terms 2 and 3 in Foundations Phase of MD program.
Registration Restrictions: Admission to the WWAMI School of Medical Education and graduate standing

MD A698B Independent Investigative Inquiry - Poster **1 Credit**
Engages students in preparation and presentation of professional quality research poster covering the independent investigative inquiry project conducted in MD A698A. Students will develop skills in dissemination of scholarly work through poster design, figure development, assembly and poster presentation at regional Medical Student III Poster Session.
Registration Restrictions: Admission to the WWAMI School of Medical Education and graduate standing
Prerequisites: MD A698A with a minimum grade of P or concurrent enrollment.

Microbiology (MBIO)

Courses

MBIO A200 Experiential Learning in Fermentation Science **2 Credits**
Applies theory and lab practice in the microbiology of fermented foods and beverages and identifies beneficial and spoilage microbes. Emphasizes experimental design and execution.
Special Note: Course includes both supervised and unsupervised lab time as well as outside work.

MBIO A251 Microbiology of Fermented Foods and Beverages **2 Credits**
Discusses the microbiology of fermented foods and beverages, including relevant beneficial and spoilage microbes, important metabolic pathways, and benefits of fermentation to flavor, nutrition and shelf-life.

MBIO A340 Microbial Biology **3 Credits**
Focuses on diversity, physiology, genetics and ecology of microorganisms.
Prerequisites: BIOL A242 with a minimum grade of C and BIOL A252 with a minimum grade of C.

MBIO A342 Experiential Learning: Microbial Biology **4 Credits**
Applies theory and lab practice in microbial diversity, growth, ecology, and identification of environmental and medically-important microorganisms. Emphasizes experimental design, scientific writing and oral presentation skills.
Special Note: This experiential learning course includes supervised lab time, unsupervised lab time and outside work.
Prerequisites: (BIOL A243 with a minimum grade of C or BIOL A273 with a minimum grade of C) and MBIO A340 with a minimum grade of C or concurrent enrollment.

MBIO A410 Microbial Physiology **3 Credits**
Explores the fundamental physiological principles of microorganisms. Emphasizes cellular structure and function relationships, and growth, metabolism and metabolic regulation in the context of microbial genomics and evolution. Evaluates use of modern tools in microbial physiology research.
Special Note: Not available for credit to students who have completed MBIO A610.
May Be Stacked With: MBIO A610
Prerequisites: MBIO A340 with a minimum grade of C.

MBIO A440 Microbial Diversity **3 Credits**
Discusses molecular, biochemical and evolutionary diversity of the microbial world including Bacteria, Archaea, Eukarya and viruses. Includes concepts of microbial speciation and approaches for recognizing metabolic, phyologenetic and genomic diversity of cultivated and uncultivated bacteria.
Special Note: Not available for credit for those who have completed MBIO A640.
May Be Stacked With: MBIO A640
Prerequisites: MBIO A340 with a minimum grade of C.

MBIO A450 Microbial Ecology **3 Credits**
Explores the natural history and diversity of the microbial world. Discusses microbial population and community ecology, the role of microorganisms in the cycling of elements, and symbioses.
Special Note: Not available for credit to students who have completed MBIO A650.
Registration Restrictions: Junior or senior standing
May Be Stacked With: MBIO A650
Prerequisites: MBIO A340 with a minimum grade of C.

MBIO A460 Host-Microbiome Interactions **3 Credits**
Explores the complex interactions of microorganisms with eukaryotic host organisms. Focuses on beneficial interactions with plants, animals and insects. Evaluates use of modern tools in host-microbiome interactions research. Emphasizes primary literature.
Registration Restrictions: Junior or senior standing
May Be Stacked With: MBIO A660
Prerequisites: BIOL A240 with a minimum grade of C or (BIOL A242 with a minimum grade of C and BIOL A252 with a minimum grade of C).

MBIO A462 Virology **3 Credits**
Introduces concepts in human virology, with an emphasis on cell and molecular biology of virus structures, viral life cycles, interactions with host cells, immune responses and disease pathogenesis. Discusses viral genomics, evolution, emergence and advanced experimental methods for analyzing virus genome sequences.
Special Note: Not available for credit to students who have completed MBIO A662.
May Be Stacked With: MBIO A662
Prerequisites: BIOL A242 with a minimum grade of C and BIOL A252 with a minimum grade of C.

MBIO A468 Geomicrobiology **3 Credits**
Examines the mutual interactions between geology and microbiology. Emphasizes microbial processes that affect local and global environments including biogeochemical cycles, co-evolution, microbe-mineral interactions and life in extreme environments.
Crosslisted With: GEOL A468
Prerequisites: MBIO A340 with a minimum grade of C or GEOL A360 with a minimum grade of C.
Attributes: UAA Integrative Capstone GER.

MBIO A470 Ecology and Evolution of Infectious Disease **3 Credits**
This is a class on problem solving and critical thinking focusing on problems related to the ecological and evolutionary processes that drive the transmission of pathogens between hosts and the impact of disease on host populations. The course content includes a theoretical framework, hands-on experience with field techniques, and a discussion of wildlife and human diseases including COVID-19, Ebola, Zika, influenza (swine flu, bird flu), malaria, West Nile virus, Lyme disease, HIV, Chikungunya, tuberculosis, chytridiomycosis, and many others.
Special Note: Not available for credit to students who have completed MBIO A670.
May Be Stacked With: MBIO A670
Prerequisites: BIOL A271 with a minimum grade of C and BIOL A288 with a minimum grade of C and ((BIOL A240 with a minimum grade of C and BIOL A240L with a minimum grade of C) or MBIO A340 with a minimum grade of C or (BIOL A242 with a minimum grade of C and BIOL A252 with a minimum grade of C)).

MBIO A610 Advanced Microbial Physiology **3 Credits**
Advanced course explores the fundamental physiological principles of microorganisms. Emphasizes cellular structure and function relationships, and growth, metabolism and metabolic regulation in the context of microbial genomics and evolution. Evaluates use of modern tools in microbial physiology research. Mentors and guides undergraduates in discussions of microbial physiology principles and methods.
Special Note: Not available for credit to students who have completed MBIO A410.
Registration Restrictions: Graduate standing
May Be Stacked With: MBIO A410

MBIO A640 Advanced Microbial Diversity **3 Credits**
Discusses molecular, biochemical and evolutionary diversity of the microbial world including Bacteria, Archaea, Eukarya and viruses. Includes concepts of microbial speciation and approaches for recognizing metabolic, phylogenetic and genomic diversity of cultivated and uncultivated bacteria. Develops leadership and mentoring skills for undergraduates in discussions of microbial diversity principles and methods.
Special Note: Not available for credit to students who have completed MBIO A440.
Registration Restrictions: Graduate standing
May Be Stacked With: MBIO A440

MBIO A650 Advanced Microbial Ecology **3 Credits**
Advanced exploration of the natural history and diversity of the microbial world. Discusses microbial population and community ecology, the role of microorganisms in the cycling of elements, and symbioses.
Special Note: Not available for credit to students who have completed MBIO A450.
Registration Restrictions: Graduate standing
May Be Stacked With: MBIO A450

MBIO A660 Advanced Host-Microbiome Interactions **3 Credits**
Explores the complex interactions of microorganisms with eukaryotic host organisms. Focuses on beneficial interactions with plants, animals and insects. Evaluates use of modern tools in host-microbe interactions research. Emphasizes primary literature. Develops leadership and mentoring skills for undergraduates in discussions of host-microbe interactions principles and methods.
Special Note: Not available for credit to students who have completed MBIO A460.
Registration Restrictions: Graduate standing
May Be Stacked With: MBIO A460

MBIO A662 Advanced Virology **3 Credits**
Advanced concepts in human virology. An in-depth focus on cell and molecular biology of virus structures, viral life cycles, interactions with host cells, immune responses and disease pathogenesis. Viral genomics, evolution, emergence and advanced experimental methods for analyzing virus genome sequences will be discussed.
Special Note: Not available for credit to students who have completed MBIO A462.
Registration Restrictions: Graduate standing
May Be Stacked With: MBIO A462

MBIO A670 Advanced Ecology and Evolution of Infectious Disease **3 Credits**
This is a class on problem solving and critical thinking focusing on problems related to the ecological and evolutionary processes that drive the transmission of pathogens between hosts and the impact of disease on host populations. The course content includes a theoretical framework, and a discussion of wildlife and human diseases including COVID-19, Ebola, Zika, influenza (swine flu, bird flu), malaria, West Nile virus, Lyme disease, HIV, Chikungunya, tuberculosis, chytridiomycosis, and many others. Additionally, graduate students will be engaged and involved in the modeling and implementation of new analyses and interpretation of existing research.
Special Note: Not available for credit to students who have completed MBIO A470.
May Be Stacked With: MBIO A470

Military Science (MILS)

Courses

MILS A101 Leadership and Personal Development **1 Credit**
Introduces students to the personal challenges and competencies that are critical for effective leadership. Educates students on how the personal development of life skills such as time management, physical fitness and stress management relate to leadership, officership and Army operations. Develops basic knowledge and comprehension of Army Leadership Dimensions while gaining a big-picture understanding of the ROTC program, its purpose in the Army and its advantages for the student.
Corequisites: MILS A150.

MILS A102 Introduction to Tactical Leadership **1 Credit**
Overview of leadership fundamentals such as setting direction, problem-solving, listening, presenting briefs, providing feedback and using effective writing skills. Explores dimensions of leadership attributes and core leader competencies in the context of practical, hands-on and interactive exercises.
Corequisites: MILS A150.

MILS A150 Army ROTC Leadership and Physical Training Laboratory **1 Credit**
Allows for practical experience of theories learned in a classroom environment. Exercises principles of patrolling, land navigation and physical training in a real world environment. Evaluates proficiency in one field training exercise per semester lasting no longer than 72 hours. Tests their academic knowledge and prepares them for their future roles as United States Army Officers.
Registration Restrictions: Students must be enrolled in Army ROTC academic courses unless they have completed all ROTC academic courses for program completion. Corequisites are: MILS A101 or MILS A102 or MILS A201 or MILS A202 or MILS A301 or MILS A302 or MILS A401 or MILS A402.

MILS A201 Foundations of Leadership **3 Credits**
Explores the dimensions of creative and innovative tactical leadership strategies and styles by examining team dynamics and two historical leadership theories that form the basis of the Army leadership framework. Evaluates personal motivation and team building through planning, executing and assessing team exercises.
Prerequisites: MILS A102 with a minimum grade of D.
Corequisites: MILS A150.

MILS A202 Foundations of Tactical Leadership **3 Credits**
Examines the challenges of leading tactical teams in the complex contemporary operating environment (COE). The course highlights dimensions of terrain analysis, patrolling, and operation orders. Explores the dynamics of adaptive leadership in the context of military operations through the study of the theoretical basis of the Army Leadership Requirements Model.
Prerequisites: MILS A201 with a minimum grade of D.
Corequisites: MILS A150.

MILS A301 Adaptive Team Leadership **3 Credits**
Challenges students to study, practice, and evaluate adaptive leadership skills as they are presented with challenging scenarios related to squad tactical operations. Provides systematic and specific feedback on students' leadership attributes and actions. Develops leadership and critical thinking abilities.
Registration Restrictions: Restricted to contracted ROTC cadets only.
Prerequisites: MILS A202 with a minimum grade of D.
Corequisites: MILS A150.

MILS A302 Applied Team Leadership **3 Credits**
Uses increasingly intense situations for applied team leadership challenges to build student awareness and skills in leading tactical operations at the small unit level. Students review aspects of full spectrum operations. Develops proficiency in the operations orders process by conducting military briefings.
Registration Restrictions: Restricted to contracted ROTC cadets only.
Prerequisites: MILS A301 with a minimum grade of D.
Corequisites: MILS A150.

MILS A401 Adaptive Leadership **3 Credits**
Transitions the focus of student learning from being trained, mentored and evaluated as an MS III Cadet to learning how to train, mentor and evaluate underclass Cadets. Explains the duties and responsibilities of an Army staff officer. Applies the Military Decision Making Process, Army writing style and the Army's principles of training and training management cycle during weekly training meetings to plan, execute and assess battalion training events. Demonstrates Army values and ethics and how to apply them to everyday life as well as in the Contemporary Operating Environment. Examines the officer's role in the Uniform Code of Military Justice, counseling subordinates, and methods on how to best manage their career as an Army Officer.
Registration Restrictions: Restricted to contracted ROTC cadets only.
Prerequisites: MILS A302 with a minimum grade of D.
Corequisites: MILS A150.

MILS A402 Leadership in a Complex World **3 Credits**
Explores the dynamics of leading in the complex situations of current military operations in the contemporary operating environment (COE). Examines differences in customs and courtesies, principles of war, and rules of engagement in the face of international terrorism. Explores aspects of interacting with non-government organizations, civilians on the battlefield, and host nation support.
Registration Restrictions: Restricted to contracted ROTC cadets only.
Prerequisites: MILS A401 with a minimum grade of D.
Corequisites: MILS A150.

MILS A450 History of the United States Army **3 Credits**
Develops student awareness of the relationship of the military establishment to society in the United States. Examines the evolution of war and the progression of military professionalism and provides an awareness of and purpose for military operations from colonial America to present day. Discusses the importance of understanding United States Army history as a part of the military profession. Analyzes the evolution of both tactics and force structure of the United States Army during these periods.
Registration Restrictions: Departmental approval

Music (MUS)

Courses

MUS A100 History of Rock & Pop **3 Credits**
Examines the origin and development of Rock and Popular music from its origins to the present. Traces the chronological progression of the genre through study of its prominent performers, songs, technological advances and defining events. Explores the historical, political and cultural influences as well as generational identity, ethnicity, race and gender.
Attributes: UAA Fine Arts GER.

MUS A110 Popular Songwriting **3 Credits**
Explores songwriting from the perspective of both listener and composer. Examines the cultural context in which music is created, the technical construction of music, and the resultant ideas that music expresses. Engages students in hands-on work using digital audio workstations (DAWS) to compose and produce songs in popular styles.
Special Note: No prior background in music is needed.
Attributes: UAA Fine Arts GER.

MUS A111 Fundamentals of Music **3 Credits**
Examines the basic elements of music including notation, rhythm, scales, keys, intervals, time signatures and musical terminology.

MUS A121 Music Appreciation **3 Credits**
Introduces students to the basic elements of musical sound and music notation followed by a survey of the history and development of Western art music from the early Middle Ages to the present.
Special Note: Music majors may not use this course toward their GER Fine Arts requirement nor their music-major degree requirements.
Attributes: UAA Fine Arts GER.

MUS A131 Music Theory I **3 Credits**
Examines the organization of musical materials with emphasis on diatonic functional harmony. Introduces the skills necessary for part writing and keyboard competency.
Registration Restrictions: Concurrent enrollment in MUS A133
Corequisites: MUS A133.

MUS A132 Music Theory II **3 Credits**
Emphasizes part writing and melody harmonization. Introduces non-harmonic tones, modulation and development of practical keyboard skills.
Special Note: Continuation of MUS A131
Registration Restrictions: Concurrent enrollment in MUS A134
Prerequisites: MUS A131 with a minimum grade of C and MUS A133 with a minimum grade of C.
Corequisites: MUS A134.

MUS A133 Aural Skills I **1 Credit**
Develops skills used in reading and hearing music through the study of sight singing and dictation.
Registration Restrictions: Concurrent enrollment in MUS A131
Corequisites: MUS A131.

MUS A134 Aural Skills II **1 Credit**
Develops skills used in reading and hearing music through the study of sight singing and dictation.
Special Note: Continuation of MUS A133.
Registration Restrictions: Concurrent enrollment in MUS A132
Prerequisites: MUS A131 with a minimum grade of C and MUS A133 with a minimum grade of C.
Corequisites: MUS A132.

MUS A140 Introduction to Guitar **2 Credits**
Introduces basic guitar-technique for students who do not read music or who have limited experience with the guitar. Provides playing opportunities with melodies, solos, and accompaniment on the guitar from standard treble-clef notation.
Special Note: May be repeated once for credit. Students must furnish their own 6-string acoustic or classical guitar.

MUS A152 Voice Class **1 Credit**
Introduces the study and practice of basic fundamentals of singing and song interpretation. Stresses breath support, healthy laryngeal function and good alignment. Covers healthy and efficient practice methods. Includes song interpretation and performance practice through a variety of assigned repertoire.
Special Note: Ability to read music not a prerequisite.

MUS A156 Functional Piano **1 Credit**
Provides students with functional skills to effectively use the piano in various teaching and performing situations. Prepares music majors to pass the department's Piano Proficiency Exam.

MUS A161 Private Lessons **2 Credits**
Provides individual music instruction for students studying brass, guitar, harpsichord, organ, percussion, piano, strings, voice and woodwinds.
Special Note: In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval

MUS A161B Private Lessons: Brass **2 Credits**
Provides individual music instruction for students studying brass.
Special Note: In addition to weekly private lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval

MUS A161G Private Lessons: Guitar **2 Credits**
Provides individual music instruction for students studying guitar.
Special Note: In addition to weekly private lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval

MUS A161H Private Lessons: Harpsichord **2 Credits**
Provides individual music instruction for students studying harpsichord.

Special Note: In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval

MUS A161J Private Lessons: Jazz Vocal **2 Credits**
Provides individual music instruction to students studying vocal jazz.
Special Note: In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval

MUS A161O Private Lessons: Organ **2 Credits**
Provides individual music instruction for students studying organ.
Special Note: In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval

MUS A161P Private Lessons: Piano **2 Credits**
Provides individual music instruction for students studying piano.
Special Note: In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval

MUS A161R Private Lessons: Percussion **2 Credits**
Provides individual music instruction for students studying percussion.
Special Note: In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval

MUS A161S Private Lessons: Strings **2 Credits**
Provides individual music instruction for students studying strings.
Special Note: In addition to weekly private lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval

MUS A161V Private Lessons: Voice **2 Credits**
Provides individual music instruction for students studying voice.
Special Note: In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval

MUS A161W Private Lessons: Woodwinds **2 Credits**
Provides individual music instruction for students studying woodwinds.
Special Note: In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval

MUS A162 Private Lessons **2 Credits**
Provides individual music instruction for students studying brass, guitar, harpsichord, organ, percussion, piano, strings, voice and woodwinds.
Special Note: Continuation of MUS A161. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Departmental approval. Enrollment concurrent with appropriate master class and ensemble.
Prerequisites: MUS A161 with a minimum grade of C.

MUS A162B Private Lessons: Brass **2 Credits**
Provides individual music instruction for students studying brass.
Special Note: Continuation of MUS A161B. In addition to weekly private lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A161B with a minimum grade of C.

MUS A162G Private Lessons: Guitar **2 Credits**
Provides individual music instruction for students studying guitar.
Special Note: Continuation of MUS A161G. In addition to weekly private lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A161G with a minimum grade of C.

MUS A162H Private Lessons: Harpsichord **2 Credits**
Provides individual music instruction for students studying harpsichord.

Special Note: Continuation of MUS A161H. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A161H with a minimum grade of C.

MUS A162J Private Lessons: Jazz Vocal **2 Credits**
Provides individual music instruction to students studying vocal jazz.
Special Note: Continuation of MUS A161J. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A161V with a minimum grade of C or MUS A161J with a minimum grade of C.

MUS A162O Private Lessons: Organ **2 Credits**
Provides individual music instruction for students studying organ.
Special Note: Continuation of MUS A161O. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A161O with a minimum grade of C.

MUS A162P Private Lessons: Piano **2 Credits**
Provides individual music instruction for students studying piano.
Special Note: Continuation of MUS A161P. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A161P with a minimum grade of C.

MUS A162R Private Lessons: Percussion **2 Credits**
Provides individual music instruction for students studying percussion.
Special Note: Continuation of MUS A161R. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A161R with a minimum grade of C.

MUS A162S Private Lessons: Strings **2 Credits**
Provides individual music instruction for students studying strings.
Special Note: Continuation of MUS A161S. In addition to weekly private lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A161S with a minimum grade of C.

MUS A162V Private Lessons: Voice **2 Credits**
Provides individual music instruction for students studying voice.
Special Note: Continuation of MUS A161V. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A161V with a minimum grade of C.

MUS A162W Private Lessons: Woodwinds **2 Credits**
Provides individual music instruction for students studying woodwinds.
Special Note: Continuation of MUS A161W. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A161W with a minimum grade of C.

MUS A163 Private Lessons **1-2 Credits**
Provides individual, non-juried music instruction for students studying brass, guitar, harpsichord, organ, percussion, piano, strings, voice and woodwinds.
Special Note: May be repeated for a maximum of 4 credits. Cannot be petitioned to substitute for juried lessons (MUS A161, MUS A162, MUS A261, MUS A262, MUS A361, MUS A362, MUS A461, and MUS A462).
Registration Restrictions: Departmental approval

MUS A163B Private Lessons: Brass **1-2 Credits**
Provides individual, non-juried music instruction for students studying brass.
Special Note: May be repeated for a maximum of 4 credits. Cannot be petitioned to substitute for juried lessons (MUS A161, MUS A162, MUS A261, MUS A262, MUS A361, MUS A362, MUS A461 and MUS A462).
Registration Restrictions: Department approval

MUS A163G Private Lessons: Guitar **1-2 Credits**
Provides individual, non-juried music instruction for students studying guitar.
Special Note: May be repeated for a maximum of 4 credits. Cannot be petitioned to substitute for juried lessons (MUS A161, MUS A162, MUS A261, MUS A262, MUS A361, MUS A362, MUS A461 and MUS A462).
Registration Restrictions: Department approval

MUS A163H Private Lessons: Harpsichord **1-2 Credits**
Provides individual, non-juried private music instruction for students studying harpsichord.
Special Note: May be repeated for a maximum of 4 credits. Cannot be petitioned to substitute for juried lessons (MUS A161, MUS A162, MUS A261, MUS A262, MUS A361, MUS A362, MUS A461 and MUS A462).
Registration Restrictions: Department approval

MUS A163O Private Lessons: Organ **1-2 Credits**
Provides individual, non-juried music instruction for students studying organ.
Special Note: May be repeated for a maximum of 4 credits. Cannot be petitioned to substitute for juried lessons (MUS A161, MUS A162, MUS A261, MUS A262, MUS A361, MUS A362, MUS A461 and MUS A462).
Registration Restrictions: Department approval

MUS A163P Private Lessons: Piano **1-2 Credits**
Provides individual, non-juried music instruction for students studying piano.
Special Note: May be repeated for a maximum of 4 credits. Cannot be petitioned to substitute for juried lessons (MUS A161, MUS A162, MUS A261, MUS A262, MUS A361, MUS A362, MUS A461 and MUS A462).
Registration Restrictions: Department approval

MUS A163R Private Lessons: Percussion **1-2 Credits**
Provides individual, non-juried music instruction for students studying percussion.
Special Note: May be repeated for a maximum of 4 credits. Cannot be petitioned to substitute for juried lessons (MUS A161, MUS A162, MUS A261, MUS A262, MUS A361, MUS A362, MUS A461 and MUS A462).
Registration Restrictions: Department approval

MUS A163S Private Lessons: Strings **1-2 Credits**
Provides individual, non-juried music instruction for students studying strings.
Special Note: May be repeated for a maximum of 4 credits. Cannot be petitioned to substitute for juried lessons (MUS A161, MUS A162, MUS A261, MUS A262, MUS A361, MUS A362, MUS A461 and MUS A462).
Registration Restrictions: Department approval

MUS A163V Private Lessons: Voice **1-2 Credits**
Provides individual, non-juried music instruction for students studying voice.
Special Note: May be repeated for a maximum of 4 credits. Cannot be petitioned to substitute for juried lessons (MUS A161, MUS A162, MUS A261, MUS A262, MUS A361, MUS A362, MUS A461 and MUS A462).
Registration Restrictions: Department approval

MUS A163W Private Lessons: Woodwinds **1-2 Credits**
Provides individual, non-juried music instruction for students studying woodwinds.
Special Note: May be repeated for a maximum of 4 credits. Cannot be petitioned to substitute for juried lessons (MUS A161, MUS A162, MUS A261, MUS A262, MUS A361, MUS A362, MUS A461 and MUS A462).
Registration Restrictions: Department approval

MUS A164 Private Lessons **1-2 Credits**
Provides individual, non-juried music instruction for non-majors studying brass, guitar, harpsichord, organ, percussion, piano, strings, voice and woodwinds.
Special Note: May be repeated for a maximum of 4 credits.
Registration Restrictions: Department approval

MUS A164B Private Lessons: Brass **1-2 Credits**
Provides individual, non-juried music instruction for non-majors studying brass.
Special Note: May be repeated for a maximum of 4 credits.
Registration Restrictions: Department approval

MUS A164G Private Lessons: Guitar **1-2 Credits**
Provides individual, non-juried music instruction for non-majors studying guitar.
Special Note: May be repeated for a maximum of 4 credits.
Registration Restrictions: Department approval

MUS A164H Private Lessons: Harpsichord **1-2 Credits**
Provides individual, non-juried music instruction for non-majors studying harpsichord.
Special Note: May be repeated for a maximum of 4 credits.
Registration Restrictions: Department approval

MUS A164O Private Lessons: Organ **1-2 Credits**
Provides individual, non-juried music instruction for non-majors studying organ.
Special Note: May be repeated for a maximum of 4 credits.
Registration Restrictions: Department approval

MUS A164P Private Lessons: Piano **1-2 Credits**
Provides individual, non-juried music instruction for non-majors studying piano.
Special Note: May be repeated for a maximum of 4 credits.
Registration Restrictions: Department approval

MUS A164R Private Lessons: Percussion **1-2 Credits**
Provides individual, non-juried music instruction for non-majors studying percussion.
Special Note: May be repeated for a maximum of 4 credits.
Registration Restrictions: Department approval

MUS A164S Private Lessons: Strings **1-2 Credits**
Provides individual, non-juried music instruction for non-majors studying strings.
Special Note: May be repeated for a maximum of 4 credits.
Registration Restrictions: Department approval

MUS A164V Private Lessons: Voice **1-2 Credits**
Provides individual, non-juried music instruction for non-majors studying voice.
Special Note: May be repeated for a maximum of 4 credits.
Registration Restrictions: Department approval

MUS A164W Private Lessons: Woodwinds **1-2 Credits**
Provides individual, non-juried music instruction for non-majors studying woodwinds.
Special Note: May be repeated for a maximum of 4 credits.
Registration Restrictions: Department approval

MUS A215 Music of Alaska Natives and Indigenous Peoples of Northern Regions **3 Credits**
Explores music and dance practices of Alaska Native and Indigenous peoples of the circumpolar north by region and culture group. Interdisciplinary methods will be used to examine the historical and social dynamics behind changing musical and cultural traditions. Fundamentals of ethnomusicology theory and research methods will be introduced.
Registration Restrictions: AKNS A201 or MUS A111 recommended prior to registering for this course.
Crosslisted With: AKNS A215.
Prerequisites: WRTG A111 with a minimum grade of C.
Attributes: UAA Fine Arts GER, UAA Intercultural Fluency GER, UAA Alaska Native-Themed GER.

MUS A216 World Indigenous Music **3 Credits**
Surveys Indigenous music cultures of the world. Examines musical traditions of Africa, the Americas, Asia, Europe, the Near/Far East, and Oceania within the context of musical styles and culture.
Crosslisted With: AKNS A216
Prerequisites: WRTG A111 with a minimum grade of C.
Attributes: UAA Fine Arts GER, UAA Intercultural Fluency GER, UAA Alaska Native-Themed GER.

MUS A218A Alaska Native Drummaking Techniques: Athabascan and Southeast Style **3 Credits**
Studio course in which students learn the fundamentals of making hand drums in the Athabascan and Southeast Alaskan Indian style. Students will also study the living tradition of Alaska Native drum practices.
Crosslisted With: AKNS A218A
Attributes: UAA Alaska Native-Themed GER.

MUS A218B Alaska Native Drummaking Techniques: Inupiaq and Yup'ik Style **3 Credits**
Studio course in which students learn the fundamentals of making handheld frame drums in the Inupiaq and Yup'ik Alaskan Native tradition. Students will also study the living tradition of Alaska Native drum practices.
Crosslisted With: AKNS A218B
Attributes: UAA Alaska Native-Themed GER.

MUS A220 Music in Western Culture **3 Credits**
Examines stylistic developments and structures of important musical genres of Western art music within their historical and cultural contexts.
Prerequisites: MUS A131 with a minimum grade of C.

MUS A224 History of Jazz **3 Credits**
Introduces the history and development of jazz from its early heritage to the present, emphasizing representative styles and individual or group contributors.
Attributes: UAA Fine Arts GER.

MUS A231 Music Theory III **3 Credits**
Examines functional harmony, 4-voice part writing, harmonization of melodies and chromatic harmony. Explores modulation, secondary-dominant functions, altered chords along with analysis of binary and ternary forms.
Special Note: Continuation of MUS A132
Registration Restrictions: Concurrent enrollment in MUS A233
Prerequisites: MUS A132 with a minimum grade of C and MUS A134 with a minimum grade of C.
Corequisites: MUS A233.

MUS A232 Music Theory IV **3 Credits**
Examines borrowed chords and other types of chromatic harmonies. Surveys the harmonic and melodic conventions used in 20th and 21st century music.
Special Note: Continuation of MUS A231
Registration Restrictions: Concurrent enrollment in MUS A234
Prerequisites: MUS A231 with a minimum grade of C and MUS A233 with a minimum grade of C.
Corequisites: MUS A234.

MUS A233 Aural Skills III **1 Credit**
Develops skills in reading and hearing music through the study of sight singing and dictation.
Special Note: Continuation of MUS A134.
Registration Restrictions: Concurrent enrollment in MUS A231
Prerequisites: MUS A132 with a minimum grade of C and MUS A134 with a minimum grade of C.
Corequisites: MUS A231.

MUS A234 Aural Skills IV **1 Credit**
Develops skills in reading and hearing music through the study of sight singing and dictation.
Special Note: Continuation of MUS A233.
Registration Restrictions: Concurrent enrollment in MUS A232
Prerequisites: MUS A231 with a minimum grade of C and MUS A233 with a minimum grade of C.
Corequisites: MUS A232.

MUS A261 Private Lessons **2 Credits**
Provides individual music instruction for students studying brass, guitar, harpsichord, organ, percussion, piano, strings, voice and woodwinds.
Special Note: Continuation of MUS A162. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A162 with a minimum grade of C.

MUS A261B Private Lessons: Brass **2 Credits**
Provides individual music instruction for students studying brass.
Special Note: Continuation of MUS A162B. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A162B with a minimum grade of C.

MUS A261G Private Lessons: Guitar **2 Credits**
Provides individual music instruction for students studying guitar.
Special Note: Continuation of MUS A162G. In addition to weekly private lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A162G with a minimum grade of C.

MUS A261H Private Lessons: Harpsichord **2 Credits**
Provides individual music instruction for students studying harpsichord.

Special Note: Continuation of MUS A162H. In addition to weekly private lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A162H with a minimum grade of C.

MUS A261J Private Lessons: Jazz Vocals **2 Credits**
Provides individual music instruction to students studying vocal jazz.
Special Note: Continuation of MUS A162J. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A162V with a minimum grade of C.

MUS A261O Private Lessons: Organ **2 Credits**
Provides individual music instruction for students studying organ.
Special Note: Continuation of MUS A162O. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A162O with a minimum grade of C.

MUS A261P Private Lessons: Piano **2 Credits**
Provides individual music instruction for students studying piano.
Special Note: Continuation of MUS A162P. In addition to weekly private lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A162P with a minimum grade of C.

MUS A261R Private Lessons: Percussion **2 Credits**
Provides individual music instruction for students studying percussion.
Special Note: Continuation of MUS A162R. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A162R with a minimum grade of C.

MUS A261S Private Lessons: Strings **2 Credits**
Provides individual music instruction for students studying strings.
Special Note: Continuation of MUS A162S. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A162S with a minimum grade of C.

MUS A261V Private Lessons: Voice **2 Credits**
Provides individual music instruction to students studying voice.
Special Note: Continuation of MUS A162V. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A162V with a minimum grade of C.

MUS A261W Private Lessons: Woodwinds **2 Credits**
Provides individual music instruction for students studying woodwinds.
Special Note: Continuation of MUS A162W. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A162W with a minimum grade of C.

MUS A262 Private Lessons **2 Credits**
Provides individual music instruction for students studying brass, guitar, harpsichord, organ, percussion, piano, strings, voice and woodwinds.
Special Note: Continuation of MUS A261. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A261 with a minimum grade of C.

MUS A262B Private Lessons: Brass **2 Credits**
Provides individual music instruction for students studying brass.
Special Note: Continuation of MUS A261B. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A261B with a minimum grade of C.

MUS A262G Private Lessons: Guitar **2 Credits**
Provides individual music instruction for students studying guitar.
Special Note: Continuation of MUS A261G. In addition to weekly private lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A261G with a minimum grade of C.

MUS A262H Private Lessons: Harpsichord **2 Credits**
Provides individual music instruction for students studying harpsichord.

Special Note: Continuation of MUS A261H. In addition to weekly private lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval.
Prerequisites: MUS A261H with a minimum grade of C.

MUS A262J Private Lessons: Jazz Vocals **2 Credits**
Provides individual music instruction to students studying vocal jazz.
Special Note: Continuation of MUS A261J. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A261J with a minimum grade of C or MUS A261V with a minimum grade of C.

MUS A262O Private Lessons: Organ **2 Credits**
Provides individual music instruction for students studying organ.
Special Note: Continuation of MUS A261O. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A261O with a minimum grade of C.

MUS A262P Private Lessons: Piano **2 Credits**
Provides individual music instruction for students studying piano.
Special Note: Continuation of MUS A261P. In addition to weekly private lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A261P with a minimum grade of C.

MUS A262R Private Lessons: Percussion **2 Credits**
Provides individual music instruction for students studying percussion.
Special Note: Continuation of MUS A261R. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A261R with a minimum grade of C.

MUS A262S Private Lessons: Strings **2 Credits**
Provides individual music instruction for students studying strings.
Special Note: Continuation of MUS A261S. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A261S with a minimum grade of C.

MUS A262V Private Lessons: Voice **2 Credits**
Provides individual music instruction for students studying voice.
Special Note: Continuation of MUS A261V. In addition to weekly private lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A261V with a minimum grade of C.

MUS A262W Private Lessons: Woodwinds **2 Credits**
Provides individual music instruction for students studying woodwinds.
Special Note: Continuation of MUS A261W. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A261W with a minimum grade of C.

MUS A290 Selected Topics in Music **1-3 Credits**
Examines a variety of topics in music.
Special Note: May be repeated with a change in subtitle. MUS A290 is designed for the non-music major.
May Be Stacked With: MUS A490

MUS A301A University Singers **1 Credit**
Provides students with rehearsal and performance experiences in a large choral-ensemble setting performing a variety of repertoire from the Renaissance to the present day.
Special Note: May be repeated for credit. Elective credit for the non-music major. New members: see instructor at the first class for section placement.
May Be Stacked With: MUS A301B

MUS A301B University Singers **2 Credits**
Provides students with rehearsal and performance experiences in a large choral-ensemble setting performing a variety of repertoire from the Renaissance to the present day.
Special Note: May be repeated for credit. Ensemble credit for music majors. New members: see instructor at the first class for section placement.
May Be Stacked With: MUS A301A

MUS A302A Chamber Music and Accompanying **1 Credit**
Examines the art of performing chamber music while exploring the relevant skills of sight-reading and score-reading.
Special Note: May be repeated for credit. Course for the non-music major. Fulfills the chamber-ensemble requirement for the non-pianist music major.
May Be Stacked With: MUS A302B

MUS A302B Chamber Music and Accompanying **2 Credits**
Examines the art of accompanying singers and instrumentalists while exploring the relevant skills of sight-reading and score-reading.
Special Note: May be repeated for credit. Course fulfills the ensemble requirement for music-major pianists.
May Be Stacked With: MUS A302A

MUS A303A University Wind Ensemble **1 Credit**
Provides in-depth rehearsal and performance of original band music and transcriptions from Renaissance through 21st century literature.
Special Note: May be repeated for credit. Ensemble for the non-music major. New members: see instructor at the first class for section placement.
May Be Stacked With: MUS A303B

MUS A303B University Wind Ensemble **2 Credits**
Provides in-depth rehearsal and performance of original band music and transcriptions from Renaissance through 21st century literature.
Special Note: May be repeated for credit. Ensemble course for woodwind, brass, and percussion majors. New members: see instructor at the first class for section placement.
May Be Stacked With: MUS A303A

MUS A305 University Pep Band **1 Credit**
Provides for the rehearsal and performance of a variety of contemporary and popular musical genres and styles.
Special Note: May be repeated for a maximum of 8 credits. New members: see instructor at the first class for section placement.

MUS A307A University Sinfonia **1 Credit**
Provides students the experience of studying and performing orchestral literature from various periods and musical styles.
Special Note: May be repeated for credit. Ensemble for non-music majors. New members: See instructor at the first class for section placement.
May Be Stacked With: MUS A307B

MUS A307B University Sinfonia **2 Credits**
Provides students the experience of studying and performing orchestral literature from various periods and musical styles.
Special Note: May be repeated for credit. Ensemble for instrumental music majors. New members: See instructor at the first class for section placement.
May Be Stacked With: MUS A307A

MUS A313 Opera and Music Theatre Workshop **1 Credit**
Provides for the rehearsal and performance of selected operas, operettas and musical theatre. Meets the small ensemble requirement for music majors.
Special Note: May be repeated for credit. Only 4 credits of MUS A313 may be applied to the Bachelor of Music degrees. New members: see instructor at the first class for section placement.

MUS A315 Jazz Theory I **3 Credits**
Detailed study of jazz using modulation, sequence, transposition, arranging, and voicing through analysis and dictation. Course is adapted to individual students on keyboard or other instruments.
Registration Restrictions: Ability to read music, theory background, basic ability on an instrument.
Prerequisites: MUS A132 with a minimum grade of C.

MUS A316 Jazz Theory II **3 Credits**
Application of skills obtained in MUS A315. Modulation, sequence, transposition, arranging and voicing are studied, with compositions performed by lab groups.
Prerequisites: MUS A315 with a minimum grade of C.

MUS A331 Form and Analysis **3 Credits**
Examines the formal design of instrumental and vocal music of the Baroque, Classical and Romantic eras.
Registration Restrictions: Completion of GER Tier 1 (basic college-level skills) courses and junior or senior standing.
Prerequisites: MUS A232 with a minimum grade of C.
Attributes: UAA Integrative Capstone GER.

MUS A356 Yup'ik Music and Dance Ensemble **3 Credits**
Teaches movement, singing, drumming and the cultural contextual aspects of Alaska Native dance, including history, culture and connection to language. Designed for students who are interested in learning about Alaska Native creative expression. Ensemble course in Central Yup'ik Alaska Native music and dance.
Special Note: May be repeated for a maximum of 9 credits.
Crosslisted With: AKNS A356
Prerequisites: AKNS A201 with a minimum grade of C or (AKNS A215 with a minimum grade of C or MUS A215 with a minimum grade of C) or (AKNS A216 with a minimum grade of C or MUS A216 with a minimum grade of C).
Attributes: UAA Alaska Native-Themed GER.

MUS A361 Private Lessons **2 Credits**
Provides individual music instruction for students studying brass, guitar, harpsichord, organ, percussion, piano, string, voice and woodwinds.
Special Note: Continuation of MUS A262. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A262 with a minimum grade of C.

MUS A361B Private Lessons: Brass **2 Credits**
Provides individual music instruction for students studying brass.
Special Note: Continuation of MUS A262B. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A262B with a minimum grade of C.

MUS A361G Private Lessons: Guitar **2 Credits**
Provides individual music instruction for students studying guitar.
Special Note: Continuation of MUS A262G. In addition to weekly private lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A262G with a minimum grade of C.

MUS A361H Private Lessons: Harpsichord **2 Credits**
Provides individual music instruction for students studying harpsichord.

Special Note: Continuation of MUS A262H. In addition to weekly private lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A262H with a minimum grade of C.

MUS A361J Private Lessons: Jazz Vocals **2 Credits**
Provides individual music instruction to students studying vocal jazz.
Special Note: Continuation of MUS A262J. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A162V with a minimum grade of C or MUS A262V with a minimum grade of C.

MUS A361O Private Lessons: Organ **2 Credits**
Provides individual music instruction for students studying organ.
Special Note: Continuation of MUS A262O. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A262O with a minimum grade of C.

MUS A361P Private Lessons: Piano **2 Credits**
Provides individual music instruction for students studying piano.
Special Note: Continuation of MUS A262P. In addition to weekly private lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A262P with a minimum grade of C.

MUS A361R Private Lessons: Percussion **2 Credits**
Provides individual music instruction for students studying percussion.
Special Note: Continuation of MUS A262R. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A262R with a minimum grade of C.

MUS A361S Private Lessons: Strings **2 Credits**
Provides individual music instruction for students studying strings.
Special Note: Continuation of MUS A262S. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A262S with a minimum grade of C.

MUS A361V Private Lessons: Voice **2 Credits**
Provides individual music instruction to students studying voice.
Special Note: Continuation of MUS A262V. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A262V with a minimum grade of C.

MUS A361W Private Lessons: Woodwinds **2 Credits**
Provides individual music instruction for students studying woodwinds.
Special Note: Continuation of MUS A262W. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A262W with a minimum grade of C.

MUS A362 Private Lessons **2 Credits**
Provides individual music instruction for students studying brass, guitar, harpsichord, organ, percussion, piano, strings, voice and woodwinds.
Special Note: Continuation of MUS A361. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A361 with a minimum grade of C.

MUS A362B Private Lessons: Brass **2 Credits**
Provides individual music instruction for students studying brass.
Special Note: Continuation of MUS A361B. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A361B with a minimum grade of C.

MUS A362G Private Lessons: Guitar **2 Credits**
Provides individual music instruction for students studying guitar.
Special Note: Continuation of MUS A361G. In addition to weekly private lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A361G with a minimum grade of C.

MUS A362H Private Lessons: Harpsichord **2 Credits**
Provides individual music instruction for students studying harpsichord.

Special Note: Continuation of MUS A361H. In addition to weekly private lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A361H with a minimum grade of C.

MUS A362J Private Lessons: Jazz Vocals **2 Credits**
Provides individual music instruction to students studying vocal jazz.
Special Note: Continuation of MUS A361J. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A361J with a minimum grade of C or MUS A361V with a minimum grade of C.

MUS A362O Private Lessons: Organ **2 Credits**
Provides individual music instruction for students studying organ.
Special Note: Continuation of MUS A361O. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A361O with a minimum grade of C.

MUS A362P Private Lessons: Piano **2 Credits**
Provides individual music instruction for students studying piano.
Special Note: Continuation of MUS A361P. In addition to weekly private lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A361P with a minimum grade of D.

MUS A362R Private Lessons: Percussion **2 Credits**
Provides individual music instruction for students studying percussion.
Special Note: Continuation of MUS A361R. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A361R with a minimum grade of C.

MUS A362S Private Lessons: Strings **2 Credits**
Provides individual music instruction for students studying strings.
Special Note: Continuation of MUS A361S. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A361S with a minimum grade of C.

MUS A362V Private Lessons: Voice **2 Credits**
Provides individual music instruction to students studying voice.
Special Note: Continuation of MUS A361V. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A361V with a minimum grade of C.

MUS A362W Private Lessons: Woodwinds **2 Credits**
Provides individual music instruction for students studying woodwinds.
Special Note: Continuation of MUS A361W. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A361W with a minimum grade of C.

MUS A365 Chamber Ensemble **1 Credit**
Provides rehearsal and performance experience for instrumental/vocal ensembles of three or more performers with the goal of preparing repertoire for public performance.
Special Note: May be repeated for credit 3 times.
Registration Restrictions: Instructor approval.
Prerequisites: MUS A162 with a minimum grade of C.

MUS A371 Brass Methods and Techniques **2 Credits**
Examines the principles of teaching brass instruments with an emphasis on technique and training methods and its application in a school instrumental program.

MUS A372 Woodwind Methods and Techniques **2 Credits**
Examines the principles of teaching woodwind instruments with an emphasis on technique and training methods and its application in a school instrumental program.

MUS A373 String Methods and Techniques **2 Credits**
Examines the principles of teaching string instruments with an emphasis on technique and training methods and its application in a school string program.

MUS A374 Choral Methods and Techniques **2 Credits**
Examines the principles of teaching classroom choir and voice with an emphasis on vocal technique and training methods and its application in a school choral/vocal program.
Special Note: Student must be able to read music fluently and perform basic piano skills.

MUS A375 Percussion Methods and Techniques **2 Credits**
Examines the principles of teaching percussion instruments with an emphasis on technique and training methods and its application in a school instrumental program.
Prerequisites: MUS A232 with a minimum grade of C.

MUS A376 Elementary Music Methods and Techniques **2 Credits**
Examines the principles of teaching elementary-music methods, learning theories and pedagogy with an emphasis on general music and its application in a K-5 school program.
Special Note: Students must be able to read music fluently.

MUS A380 Conducting **3 Credits**
Examines the principles of conducting instrumental and choral music. Explores score reading and analysis, rehearsal and performance techniques, as well as expressive and interpretive gestures.
Prerequisites: MUS A232 with a minimum grade of C.

MUS A405A University Jazz Ensemble **1 Credit**
Provides rehearsal and performance of big band jazz and contemporary works with music from a variety of styles and eras including swing, blues, Latin, rock, fusion and pop.
Special Note: May be repeated for credit. Ensemble for non-music majors. New members see instructor at the first class for section placement.
May Be Stacked With: MUS A405B

MUS A405B University Jazz Ensemble **2 Credits**
Provides rehearsal and performance of big band jazz and contemporary works with music from a variety of styles and eras including swing, blues, Latin, rock, fusion and pop.
Special Note: May be repeated for credit. Ensemble for music majors. New members: see instructor at the first class for section placement.
May Be Stacked With: MUS A405A

MUS A409A University Guitar Ensemble **1 Credit**
Provides study and performance of traditional repertoire: Latin music, European folk music, popular and classical themes arranged for two or more guitars. Provides experience in sight-reading and refines practice and memorization skills. Emphasizes stylistic interpretation and stage delivery.
Special Note: May be repeated for a maximum of 8 credits. Ensemble for non-music majors. New members: see instructor at the first class for section placement.
May Be Stacked With: MUS A409B

MUS A409B University Guitar Ensemble **2 Credits**
Provides study and performance of traditional repertoire: Latin music, European folk music, and popular and classical themes arranged for two or more guitars. Provides experience in sight-reading and refines practice and memorization skills. Emphasizes stylistic interpretation and stage delivery.
Special Note: May be repeated for a maximum of 16 credits. Required ensemble for music majors. New members: see instructor at the first class for section placement.
May Be Stacked With: MUS A409A

MUS A410 Advanced Popular Songwriting **3 Credits**
Explores advanced technical and creative skills to create songs in a popular contemporary style. Examines the artistic strategies and processes of songwriting integrated with current music-production techniques using digital audio workstations (DAWS).
Special Note: Course designed for music majors.
Prerequisites: MUS A232 with a minimum grade of C.

MUS A421 Music in the Baroque Period **3 Credits**
Musical style from 1600 to 1750. In-depth study of keyboard music, opera, oratorio and cantata, and instrumental music. Requires intensive listening and reading of music.
Special Note: BA music majors must first pass MUS 154 and the functional piano exam by jury before enrolling in this course.
Prerequisites: MUS A232 with a minimum grade of D.

MUS A424 History of Music in the 20th and 21st Centuries **3 Credits**
Examines music in the 20th and 21st centuries including Western art music, jazz, rock, and pop, with an emphasis on important genres and stylistic trends, social and political influences, along with profiles of composers and performers.

MUS A425 History of Vocal and Choral Music in Europe and North America **3 Credits**
Examines vocal and choral music from the Middle Ages to the Jazz Era, with an emphasis on important genres and styles, social and political influences, along with profiles of composers and performers.

MUS A426 History of Instrumental Music in Europe and North America **3 Credits**
Examines instrumental music from the Renaissance to the 21st century, with an emphasis on important genres and styles, social and political influences, along with profiles of composers and performers.

MUS A431 Counterpoint **3 Credits**
Study of the contrapuntal techniques of the 16th and 18th centuries. Features writing in appropriate vocal and instrumental forms.
Prerequisites: MUS A232 with a minimum grade of D.

MUS A432 Orchestration **3 Credits**
Principles and practices of composing and transcribing music for various instrumental ensembles, including band and orchestra.
Prerequisites: MUS A232 with a minimum grade of D.

MUS A461 Private Lessons **2 Credits**
Provides individual music instruction for students studying brass, guitar, harpsichord, organ, percussion, piano, strings, voice and woodwinds.
Special Note: Continuation of MUS A362. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A362 with a minimum grade of C.

MUS A461B Private Lessons: Brass **2 Credits**
Provides individual music instruction for students studying brass.
Special Note: Continuation of MUS A362B. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A362B with a minimum grade of C.

MUS A461G Private Lessons: Guitar **2 Credits**
Provides individual music instruction for students studying guitar.
Special Note: Continuation of MUS A362G. In addition to weekly private lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A362G with a minimum grade of C.

MUS A461H Private Lessons: Harpsichord **2 Credits**
Provides individual music instruction for students studying harpsichord.

Special Note: Continuation of MUS A362H. In addition to weekly private lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A362H with a minimum grade of C.

MUS A461J Private Lessons: Jazz Vocals **2 Credits**
Provides individual music instruction to students studying vocal jazz.
Special Note: Continuation of MUS A362J. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A162J with a minimum grade of C or MUS A162V with a minimum grade of C.

MUS A461O Private Lessons: Organ **2 Credits**
Provides individual music instruction for students studying organ.
Special Note: Continuation of MUS A362O. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A362O with a minimum grade of C.

MUS A461P Private Lessons: Piano **2 Credits**
Provides individual music instruction for students studying piano.
Special Note: Continuation of MUS A362P. In addition to weekly private lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A362P with a minimum grade of C.

MUS A461R Private Lessons: Percussion **2 Credits**
Provides individual music instruction for students studying percussion.
Special Note: Continuation of MUS A362R. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A362R with a minimum grade of C.

MUS A461S Private Lessons: Strings **2 Credits**
Provides individual music instruction for students studying strings.
Special Note: Continuation of MUS A362S. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A362S with a minimum grade of C.

MUS A461V Private Lessons: Voice **2 Credits**
Provides individual music instruction to students studying voice.
Special Note: Continuation of MUS A362V. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A362V with a minimum grade of C.

MUS A461W Private Lessons: Woodwinds **2 Credits**
Provides individual music instruction for students studying woodwinds.
Special Note: Continuation of MUS A362W. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A362W with a minimum grade of C.

MUS A462 Private Lessons **2 Credits**
Provides individual music instruction for students studying brass, guitar, harpsichord, organ, percussion, piano, strings, voice and woodwinds.
Special Note: Continuation of MUS A461. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A461 with a minimum grade of C.

MUS A462B Private Lessons: Brass **2 Credits**
Provides individual music instruction for students studying brass.
Special Note: Continuation of MUS A461B. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A461B with a minimum grade of C.

MUS A462G Private Lessons: Guitar **2 Credits**
Provides individual music instruction for students studying guitar.
Special Note: Continuation of MUS A461G. In addition to weekly private lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A461G with a minimum grade of C.

MUS A462H Private Lessons: Harpsichord **2 Credits**
Provides individual music instruction for students studying harpsichord.

Special Note: Continuation of MUS A461H. In addition to weekly private lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A461H with a minimum grade of C.

MUS A462J Private Lessons: Jazz Vocals **2 Credits**
Provides individual music instruction to students studying vocal jazz.
Special Note: Continuation of MUS A461J. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A162J with a minimum grade of C or MUS A162V with a minimum grade of C.

MUS A462O Private Lessons: Organ **2 Credits**
Provides individual music instruction for students studying organ.
Special Note: Continuation of MUS A461O. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A461O with a minimum grade of C.

MUS A462P Private Lessons: Piano **2 Credits**
Provides individual music instruction for students studying piano.
Special Note: Continuation of MUS A461P. In addition to weekly private lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A461P with a minimum grade of C.

MUS A462R Private Lessons: Percussion **2 Credits**
Provides individual music instruction for students studying percussion.
Special Note: Continuation of MUS A461R. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A461R with a minimum grade of C.

MUS A462S Private Lessons: Strings **2 Credits**
Provides individual music instruction for students studying strings.
Special Note: Continuation of MUS A461S. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A461S with a minimum grade of C.

MUS A462V Private Lessons: Voice **2 Credits**
Provides individual music instruction to students studying voice.
Special Note: Continuation of MUS A461V. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A461V with a minimum grade of C.

MUS A462W Private Lessons: Woodwinds **2 Credits**
Provides individual music instruction for students studying woodwinds.
Special Note: Continuation of MUS A461W. In addition to lessons, students are required to attend a set number of department-approved recitals and/or concerts and perform a jury each semester.
Registration Restrictions: Enrollment concurrent with appropriate master class and ensemble, and department approval
Prerequisites: MUS A461W with a minimum grade of C.

MUS A466 Instrumental Master Class **1 Credit**
Examines performance-practice issues for string, wind, guitar and percussion players including comparative analysis and discussion of instrumental literature from early Baroque through the 21st century.
Special Note: Mandatory each semester for string, wind, guitar and percussion majors; 4 credits minimum required for Bachelor of Arts in Music students. May be repeated for a maximum of 8 credits.
Registration Restrictions: Department approval. Enrollment concurrent with appropriate level of juried private lessons.
Prerequisites: MUS A161 with a minimum grade of C or MUS A162 with a minimum grade of C or MUS A261 with a minimum grade of C or MUS A262 with a minimum grade of C or MUS A361 with a minimum grade of C or MUS A362 with a minimum grade of C or MUS A461 with a minimum grade of C or MUS A462 with a minimum grade of C.

MUS A467 Piano Master Class **1 Credit**
Examines the performance practice and comparative analysis of piano literature including close examination of its styles and periods (early Baroque through the 21st century).
Special Note: Mandatory each semester for Bachelor of Music students pursuing the music performance or music education concentration. Four semesters required for Bachelor of Arts in Music students. May be repeated for a maximum of 8 credits. At least two performances required for each semester.
Registration Restrictions: Department approval
Prerequisites: MUS A161 with a minimum grade of C or concurrent enrollment or MUS A162 with a minimum grade of C or concurrent enrollment or MUS A261 with a minimum grade of C or concurrent enrollment or MUS A262 with a minimum grade of C or concurrent enrollment or MUS A361 with a minimum grade of C or concurrent enrollment or MUS A362 with a minimum grade of C or concurrent enrollment or MUS A461 with a minimum grade of C or concurrent enrollment or MUS A462 with a minimum grade of C or concurrent enrollment.

MUS A468 Voice Master Class **1 Credit**
Seminar in performance practice for singers. Analysis, discussion and performance of solo vocal literature from early Baroque through to the 21st century. Weekly master classes, with at least two performances required for each topic.
Special Note: May be repeated for a maximum of 8 credits.
Registration Restrictions: Departmental approval. Enrollment concurrent with appropriate level of juried private lessons: MUS A161, MUS A162, MUS A261, MUS A262, MUS A361, MUS A362, MUS A461 or MUS A462.

MUS A490 Selected Topics in Music **1-3 Credits**
Examines a variety of topics in music.
Special Note: May be repeated with a change in subtitle. MUS A490 is designed for the music major.
May Be Stacked With: MUS A290

MUS A668A Methods for Teaching Music I, K-12 **3 Credits**
Provides students with the fundamentals of standards-based curriculum planning and assessment for the diverse student population in elementary classrooms. Includes an overview of the content areas typically taught in K-12 music curriculum. Integrates technology, literacy and education for special populations.
Special Note: Concurrent enrollment in EDFN A695 required.
Registration Restrictions: Graduate standing, admission to the Master of Arts in Teaching, and department approval
Prerequisites: EDFN A601 and EDFN A602 and EDFN A603.
Corequisites: EDFN A695.

MUS A668B Methods for Teaching Music II, K-12 **3 Credits**
Provides students with the opportunity to develop pedagogical content knowledge by connecting theoretical knowledge and understanding of human development and learning with both general principles of instruction and content-specific strategies for teaching music.
Special Note: Concurrent enrollment in EDFN A695 required.
Registration Restrictions: Graduate standing, admission to the Master of Arts in Teaching, and department approval
Prerequisites: MUS A668A.
Corequisites: EDFN A695.

Nondestructive Testing Technology (NDT)

Courses

NDT A100 Radiographic Testing Safety **2 Credits**
Presents safety practices and USNRC regulations for industrial radiography in nondestructive examination. Prepares for both Radioactive Materials (RAM) and the X- ray category Industrial Radiography Radiation Safety Personnel (IRRSP) examination administered by the American Society for Nondestructive Testing (ASNT).
Prerequisites: ALEKS Overall Test 1 with a score of 030 or ALEKS Overall Test 2 with a score of 030 or ALEKS Overall Test 3 with a score of 030 or ALEKS Overall Test 4 with a score of 030 or ALEKS Overall Test 5 with a score of 030 or MATH A104 with a minimum grade of C or MATH A105 with a minimum grade of C or MATH A115 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C.
Corequisites: NDT A101 AND NDT A102 AND NDT A103.

NDT A101 Magnetic Particle Testing Level One **3 Credits**
Prepares students for the "American Society for Nondestructive Testing (ASNT) SNT-TC-1A" Level I code examination for magnetic particle testing. Introduces students to principles and theories associated with "dry" magnetic particle inspection methods. Administers the general, practical, and specific code exams once ASNT classroom hour requirements have been met. Provides hands-on training.
Prerequisites: ALEKS Overall Test 1 with a score of 030 or ALEKS Overall Test 2 with a score of 030 or ALEKS Overall Test 3 with a score of 030 or ALEKS Overall Test 4 with a score of 030 or ALEKS Overall Test 5 with a score of 030 or MATH A104 with a minimum grade of C or MATH A105 with a minimum grade of C or MATH A115 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C.
Corequisites: NDT A100 AND NDT A102 AND NDT A103.

NDT A102 Penetrant Testing Level One **3 Credits**
Prepares students for the "American Society for Nondestructive Testing (ASNT) SNT-TC-1A" Level I code examination for "visible" magnetic particle testing. Introduces students to principles and theories associated with penetrant testing inspection methods. Administers the general, practical, and specific code exams once ASNT classroom hour requirements have been met. Provides hands-on training.
Prerequisites: ALEKS Overall Test 1 with a score of 030 or ALEKS Overall Test 2 with a score of 030 or ALEKS Overall Test 3 with a score of 030 or ALEKS Overall Test 4 with a score of 030 or ALEKS Overall Test 5 with a score of 030 or MATH A104 with a minimum grade of C or MATH A105 with a minimum grade of C or MATH A115 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C.
Corequisites: NDT A100 AND NDT A101 AND NDT A103.

NDT A103 Ultrasonic Testing Level One **3 Credits**
Prepares students for the "American Society for Nondestructive Testing (ASNT) SNT-TC-1A" Level I code examination for ultrasonic testing. Introduces students to principles and theories associated with ultrasonic inspection using the 0 degree (straight beam) method. Administers the general, practical, and specific code exams once ASNT classroom hour requirements have been met. Provides hands-on training.
Prerequisites: ALEKS Overall Test 1 with a score of 030 or ALEKS Overall Test 2 with a score of 030 or ALEKS Overall Test 3 with a score of 030 or ALEKS Overall Test 4 with a score of 030 or ALEKS Overall Test 5 with a score of 030 or MATH A104 with a minimum grade of C or MATH A105 with a minimum grade of C or MATH A115 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C.
Corequisites: NDT A100 AND NDT A101 AND NDT A102.

NDT A104 Radiographic Testing Level One **3 Credits**
Prepares students for the "American Society for Nondestructive Testing (ASNT) SNT-TC-1A" Level I code examination for radiographic testing. Introduces students to principles and theories associated with radiographic testing inspection methods including X-rays, film development, and film artifact detections. Administers the general, practical, and specific code exams once ASNT classroom hour requirements have been met. Provides hands-on training.
Prerequisites: NDT A100 with a minimum grade of C and NDT A101 with a minimum grade of C and NDT A102 with a minimum grade of C and NDT A103 with a minimum grade of C.
Corequisites: NDT A105 AND NDT A105L AND NDT A106.

NDT A105 Introduction to American Welding Society Code **3 Credits**
Introduces the American Welding Society's "AWS D1.1 Structural Code - Steel" code book. Outlines entry level concepts associated with the AWS Certified Welding Inspector (CWI) activities including Welding Procedure Specifications (WPS), qualifications, and inspections.
Prerequisites: NDT A100 with a minimum grade of C and NDT A101 with a minimum grade of C and NDT A102 with a minimum grade of C and NDT A103 with a minimum grade of C.
Corequisites: NDT A104 AND NDT A105L AND NDT A106.

NDT A105L American Welding Society Code Lab **2 Credits**
Assesses knowledge of the AWS D1.1 Code Book. Simulates mock code inspections using field inspection tools, actual welding procedure specifications and welder performance qualification documentation, welded components, mill test reports, and related conformances.
Prerequisites: NDT A100 with a minimum grade of C and NDT A101 with a minimum grade of C and NDT A102 with a minimum grade of C and NDT A103 with a minimum grade of C.
Corequisites: NDT A104 AND NDT A105 AND NDT A106.

NDT A106 Welding for Nondestructive Inspection **2 Credits**
Introduces inspector's perspective pertaining to welders, welding equipment, and welding operations. Covers welding gases, welding electrode identification, and application as well as provides education and training simulations orbiting incorrect equipment, incorrect equipment settings and operations, incorrect gasses, and filler metals. Contains a hot-work component for hands-on experience.
Prerequisites: NDT A100 with a minimum grade of C and NDT A101 with a minimum grade of C and NDT A102 with a minimum grade of C and NDT A103 with a minimum grade of C.
Corequisites: NDT A104 AND NDT A105 AND NDT A105L.

NDT A200 Magnetic Particle Testing Level Two **3 Credits**
Prepares students for the "American Society for Nondestructive Testing (ASNT) SNT-TC-1A" Level II code examination for magnetic particle testing (MT). Expands on knowledge achieved in NDT A101 and further explains principles and theories associated with magnetic particle inspection methods as well as introduces the "wet" method of MT. Administers the general, practical, and specific code exams once ASNT classroom hour requirements have been met. Provides hands-on training.
Prerequisites: NDT A104 with a minimum grade of C and NDT A105 with a minimum grade of C and NDT A105L with a minimum grade of C and NDT A106 with a minimum grade of C.
Corequisites: NDT A201 AND NDT A202 AND NDT A203.

NDT A201 Penetrant Testing Level Two **3 Credits**
Prepares students for the "American Society for Nondestructive Testing (ASNT) SNT-TC-1A" Level II code examination for penetrant testing (PT). Expands on knowledge achieved in NDT A102, further explains principles and theories associated with penetrant inspection methods, and introduces the ultra-violet (fluorescent) method of PT. Administers the general, practical, and specific code exams once ASNT classroom hour requirements have been met. Provides hands-on training.
Prerequisites: NDT A104 with a minimum grade of C and NDT A105 with a minimum grade of C and NDT A105L with a minimum grade of C and NDT A106 with a minimum grade of C.
Corequisites: NDT A200 AND NDT A202 AND NDT A203.

NDT A202 Ultrasonic Testing Level Two **3 Credits**
Prepares students for the "American Society for Nondestructive Testing (ASNT) SNT-TC-1A" Level II code examination for ultrasonic testing. Introduces students to principles and theories associated with ultrasonic inspection using the 90 degree (shear wave) method. Administers the general, practical, and specific code exams once ASNT classroom hour requirements have been met. Provides hands-on training.
Prerequisites: NDT A104 with a minimum grade of C and NDT A105 with a minimum grade of C and NDT A105L with a minimum grade of C and NDT A106 with a minimum grade of C.
Corequisites: NDT A200 AND NDT A201 AND NDT A203.

NDT A203 Radiographic Testing Level Two **3 Credits**
Prepares students for the "American Society for Nondestructive Testing (ASNT) SNT-TC-1A" Level II code examination for radiographic testing. Introduces students to principles and theories associated with the radiographic testing inspection method, Computerized Radiography, or Digital Radiography (when available). Administers the general, practical, and specific code exams once ASNT classroom hour requirements have been met. Provides hands-on training.
Prerequisites: NDT A104 with a minimum grade of C and NDT A105 with a minimum grade of C and NDT A105L with a minimum grade of C and NDT A106 with a minimum grade of C.
Corequisites: NDT A200 AND NDT A201 AND NDT A202.

NDT A204 Pipeline Corrosion **3 Credits**
Covers pipeline inspection, examination, interpretation of relevant and irrelevant indications as well as documentation under the American Petroleum Institute's API 570 Piping and Inspection Code: In-service Inspection, Rating, Repair, and Alteration of Piping Systems. Utilizes extensive ultrasonic testing (UT) applications.
Prerequisites: NDT A200 with a minimum grade of C and NDT A201 with a minimum grade of C and NDT A202 with a minimum grade of C and NDT A203 with a minimum grade of C.
Corequisites: NDT A205 AND NDT A206 AND NDT A206L.

NDT A205 Welding Metallurgy **5 Credits**
Introduces students to the mechanical properties and mechanical failures of both ferrous and non-ferrous materials using laboratory exercises. Requires the use of sophisticated equipment, associated peripherals, and their respective consumables.
Prerequisites: NDT A200 with a minimum grade of C and NDT A201 with a minimum grade of C and NDT A202 with a minimum grade of C and NDT A203 with a minimum grade of C.
Corequisites: NDT A204 AND NDT A206 AND NDT A206L.

NDT A206 Introduction to American Petroleum Institute Code **3 Credits**
Introduces the American Petroleum Institute's "API 1104 Pipelines and Related Facilities" code book. Outlines entry level concepts associated with the AWS Certified Welding Inspector (CWI) activities including Welding Procedure Specifications (WPS), qualifications, and inspections.
Prerequisites: NDT A200 with a minimum grade of C and NDT A201 with a minimum grade of C and NDT A202 with a minimum grade of C and NDT A203 with a minimum grade of C.
Corequisites: NDT A204 AND NDT A205 AND NDT A206L.

NDT A206L American Petroleum Institute Code Lab **2 Credits**
Assesses knowledge of the API 1104 Code Book. Simulates mock code inspections using field inspection tools, actual welding procedure specifications and actual welder performance qualification documentation, welded components, mill test reports, and related conformances.
Prerequisites: NDT A200 with a minimum grade of C and NDT A201 with a minimum grade of C and NDT A202 with a minimum grade of C and NDT A203 with a minimum grade of C.
Corequisites: NDT A204 AND NDT A205 AND NDT A206.

NDT A261 Ultrasonic Testing **4 Credits**
Covers the principles of ultrasonic testing (UT) methods with compression and shear wave techniques. Examines inspection techniques in accordance with American Welding Society (AWS) D1.1, API 1104 and American Society of Mechanical Engineers (ASME) codes. Prepares students for the American Society for Nondestructive Testing (ASNT) SNT-TC-1A code recommended Level I and Level II UT general, specific, and practical examinations.
Prerequisites: (MATH A105 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A211 with a minimum grade of C or MATH A212 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C) and NDT A262 with a minimum grade of C.

NDT A262 General Nondestructive Testing **3 Credits**
Presents nondestructive testing methods of dye penetrant, magnetic particle, and visual testing. Includes the applications, advantages, and limitations of these NDT methods. Prepares students for the American Society for Nondestructive Testing (ASNT) SNT-TC-1A code Level I and Level II examinations in liquid penetrant testing (PT) and magnetic particle testing (MT).
Prerequisites: MATH A105 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A211 with a minimum grade of C or MATH A212 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C.

NDT A264 Radiographic Testing **4 Credits**
Presents theory and application of industrial radiography and meets the American Society for Nondestructive Testing (ASNT) initial training hour requirements for Level I and Level II radiographer. Includes operation of equipment, film exposures and development, radiographic procedure specifications, interpretation of radiographs, and a brief review of radiation safety.
Prerequisites: (MATH A105 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A211 with a minimum grade of C or MATH A212 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C) and WELD A112 with a minimum grade of C and NDT A100 with a minimum grade of C or concurrent enrollment.

NDT A281 Welding Inspection and Code Review **3 Credits**
Presents various welding inspection methods and a study of applicable welding codes and standards in preparation for the American Welding Society (AWS) Certified Welding Inspector (CWI) Examination.
Prerequisites: (MATH A105 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A211 with a minimum grade of C or MATH A212 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C) and WELD A112 with a minimum grade of C and WELD A157 with a minimum grade of C.

NDT A287 Welding Metallurgy Applications **5 Credits**
Presents technical information in welding metallurgy. Includes laboratory practice in metallography, heat-treating, and mechanical properties testing of various metals.
Prerequisites: (MATH A105 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A211 with a minimum grade of C or MATH A212 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C) and WELD A112 with a minimum grade of C.

Nursing (NURS)

Courses

NURS A101 Introduction to Nursing **2 Credits**
Provides an introduction to the nursing profession. Explores nursing history, current issues, roles and functions with special emphasis on communication skills and use of the nursing process as a method to provide systematic, holistic care for health needs of patients. Introduces the health-illness continuum and Maslow's Hierarchy of Needs as a foundation for prioritizing patient needs and nursing care.

NURS A120 Nursing Fundamentals **3 Credits**
Focuses on foundational nursing principles. Explores and utilizes nursing process as a method to identify, prioritize and address clients' basic needs. Focuses on healthy individuals and introduces concepts related to health disruptions. Emphasizes safe client-centered care in a collaborative healthcare environment for diverse individuals across the care continuum.
Registration Restrictions: Acceptance to first semester of Associate of Applied Science Nursing program.
Prerequisites: (BIOL A111 with a minimum grade of C or concurrent enrollment and BIOL A111L with a minimum grade of C or concurrent enrollment) and PSY A150 with a minimum grade of C or concurrent enrollment and (WRTG A111 with a minimum grade of C or concurrent enrollment or WRTG A1W with a minimum grade of C).
Corequisites: NURS A120L.

NURS A120L Nursing Fundamentals Laboratory **4 Credits**
Provides lab and client care learning experiences that allow students to apply fundamental principles and nursing skills. Supports development of skills that identify individual health needs and prioritization of nursing care in adults. Introduces nursing process with emphasis on developmentally appropriate and culturally sensitive nursing interventions. Focuses on predicted responses during a healthy state as well as beginning concepts related to health disruptions, and assisting patients toward health on the health-illness continuum.
Registration Restrictions: Acceptance to Associate of Applied Science Nursing Program.
Prerequisites: BIOL A111 with a minimum grade of C or concurrent enrollment and BIOL A111L with a minimum grade of C or concurrent enrollment and PSY A150 with a minimum grade of C or concurrent enrollment and (WRTG A111 with a minimum grade of C or concurrent enrollment or WRTG A1W with a minimum grade of C).
Corequisites: NURS A120.

NURS A125 Adult Nursing I **3 Credits**
Emphasizes the nursing process in providing care for adult patients experiencing chronic health disruptions that respond predictably to established healthcare regimens. Focuses on the pathophysiologic basis of disease, treatment options and nursing care based on stages of adult development. Includes specific emphasis on the aging adult.
Registration Restrictions: Current admission to the second semester of Associate of Applied Science in Nursing
Prerequisites: BIOL A112 with a minimum grade of C or concurrent enrollment and BIOL A112L with a minimum grade of C or concurrent enrollment and BIOL A240 with a minimum grade of C or concurrent enrollment and BIOL A240L with a minimum grade of C or concurrent enrollment and NURS A120 with a minimum grade of C and NURS A120L with a minimum grade of P and PSY A150 with a minimum grade of C.
Corequisites: NURS A125L.

NURS A125L Adult Nursing I Laboratory **4 Credits**
Clinical practicum for NURS A125. Focuses on use of pathophysiologic concepts, treatment options, and nursing process to care for adults with increasingly complex health needs in acute care settings. Incorporates diversity and developmental influences, client teaching, discharge planning, and prioritization of care using Maslow's Hierarchy of Needs.
Registration Restrictions: Current admission to second semester of Associate of Applied Science in Nursing
Prerequisites: (BIOL A112 with a minimum grade of C or concurrent enrollment and BIOL A112L with a minimum grade of C or concurrent enrollment) and (BIOL A240 with a minimum grade of C or concurrent enrollment and BIOL A240L with a minimum grade of C or concurrent enrollment) and NURS A120 with a minimum grade of C and NURS A120L with a minimum grade of P and PSY A150 with a minimum grade of C.
Corequisites: NURS A125 AND NURS A180.

NURS A180 Basic Nursing Pharmacology **3 Credits**
Provides an introduction to drug therapy with an emphasis on basic pharmacology principles, drug classifications and actions, correct dosages, methods of administration, and evaluation of patient responses across the lifespan. Nursing process is used to identify priorities for care of patients receiving specific medications.
Registration Restrictions: Admission to the Associate of Applied Science in Nursing
Prerequisites: (BIOL A111 with a minimum grade of C and BIOL A111L with a minimum grade of C) and (BIOL A112 with a minimum grade of C or concurrent enrollment and BIOL A112L with a minimum grade of C or concurrent enrollment) and (BIOL A240 with a minimum grade of C or concurrent enrollment and BIOL A240L with a minimum grade of C or concurrent enrollment) and WRTG A111 with a minimum grade of C and NURS A120 with a minimum grade of C and NURS A120L with a minimum grade of C and PSY A150 with a minimum grade of C.

NURS A220 Perinatal Nursing **3 Credits**
Focuses on care for women throughout their childbearing years and into menopause. Examines the care of a newborn at birth. Highlights low risk women's health, pregnancy and newborn care. Covers high risk complications related to women's reproductive health, maternity and newborn care.
Registration Restrictions: Admission to the third semester of the Associate of Applied Science in Nursing and completion of one social science elective with a minimum grade of C or concurrent enrollment
Prerequisites: NURS A125 with a minimum grade of C and NURS A125L with a minimum grade of P and NURS A180 with a minimum grade of C.
Corequisites: NURS A220L.

NURS A220L Perinatal Nursing Laboratory **1 Credit**
Provides clinical learning experiences caring for the pregnant and postpartum patient, her newborn and her family. Students are able to develop skills that include prioritization, critical thinking and interprofessional collaboration. The impact of psycho-social considerations and economics are emphasized in patient care.
Registration Restrictions: Admission to the third semester of the Associate of Applied Science in Nursing and completion of one social science elective with a minimum grade of C or concurrent enrollment
Prerequisites: NURS A125 with a minimum grade of C and NURS A125L with a minimum grade of P and NURS A180 with a minimum grade of C.
Corequisites: NURS A220.

NURS A221 Advanced Parenteral Therapy Laboratory **1 Credit**
Lab-based course where students apply nursing process and knowledge of intravenous (IV) therapy, nutritional support, and pain management learned in previous nursing courses, to advanced concepts in the management of therapeutic interventions administered via the parenteral route. Emphasizes theoretical content and psychomotor skills related to advanced intravenous and parenteral therapies along the health-illness continuum, across the lifespan and applicable in multiple health care settings. Utilizes presentation, seminar, demonstration, supervised practice, return demonstration, and directed self-learning.
Registration Restrictions: Admission to the third semester of the Associate of Applied Science in Nursing and completion of one social science elective with a minimum grade of C or concurrent enrollment
Prerequisites: (BIOL A112 with a minimum grade of C and BIOL A112L with a minimum grade of C) and (BIOL A240 with a minimum grade of C and BIOL A240L with a minimum grade of C) and DN A203 with a minimum grade of C or concurrent enrollment and (WRTG A211 with a minimum grade of C or concurrent enrollment or WRTG A212 with a minimum grade of C or concurrent enrollment or WRTG A213 with a minimum grade of C or concurrent enrollment) and NURS A125 with a minimum grade of C and NURS A125L with a minimum grade of C and NURS A180 with a minimum grade of C.
Corequisites: NURS A220 AND NURS A220L AND NURS A222 AND NURS A222L.

NURS A222 Child and Family Nursing **3 Credits**
Focuses on critical thinking and the nursing process, providing developmentally and culturally appropriate nursing care for children and their families from birth through adolescence. Emphasizes normal growth and development as well as acute and chronic alterations in health and development along the health-illness continuum.
Registration Restrictions: Admission to the College of Health, current admission to the third semester of the Associate of Applied Science in Nursing, and completion of one social science elective with a minimum grade of C or concurrent enrollment
Prerequisites: NURS A125 with a minimum grade of C and NURS A125L with a minimum grade of P and NURS A180 with a minimum grade of C.
Corequisites: NURS A222L.

NURS A222L Child and Family Nursing Laboratory **1 Credit**
Focuses on the application of nursing process in providing developmentally and culturally appropriate nursing care for children and their families throughout the health-illness continuum. Clinical experiences occur in selected acute and ambulatory pediatric care settings as well as in selected community settings.
Registration Restrictions: Admission to the College of Health, current admission to the third semester of the Associate of Applied Science in Nursing, and completion of one social science elective with a minimum grade of C or concurrent enrollment
Prerequisites: NURS A125 with a minimum grade of C and NURS A125L with a minimum grade of P and NURS A180 with a minimum grade of C.
Corequisites: NURS A222.

NURS A223 Concepts of Adult Nursing **1 Credit**
Focuses on nursing practice with adult clients experiencing a wide range of acute and chronic alterations in health. Emphasizes the prioritization of healthcare needs, clinical reasoning, and evaluation of care used in evidence-based practice.
Registration Restrictions: Admission to the College of Health and current admission to the third semester of the Associate of Applied Science in Nursing
Prerequisites: NURS A120 with a minimum grade of C and NURS A120L with a minimum grade of P and NURS A125 with a minimum grade of C and NURS A125L with a minimum grade of P and NURS A180 with a minimum grade of C.
Corequisites: NURS A223L.

NURS A223L Concepts of Adult Nursing Laboratory **1 Credit**
Focuses on nursing practice with adult clients experiencing a wide range of acute and chronic alterations in health in the clinical, simulation, or lab setting. Emphasizes the prioritization of healthcare needs, clinical reasoning, and evaluation of care used in evidence-based practice.
Registration Restrictions: Admission to the College of Health and current admission to the third semester of the Associate of Applied Science in Nursing
Prerequisites: NURS A120 with a minimum grade of C and NURS A120L with a minimum grade of P and NURS A125 with a minimum grade of C and NURS A125L with a minimum grade of P and NURS A180 with a minimum grade of C.
Corequisites: NURS A220 AND NURS A220L AND NURS A222 AND NURS A222L AND NURS A223.

NURS A225 Adult Nursing II **3 Credits**
Focuses on the care of adult medical-surgical patient with acute, complex and life-threatening disorders. Emphasizes the prioritization of healthcare needs and nursing interventions grounded in evidence-based practice utilizing critical thinking and interprofessional collaboration.
Registration Restrictions: Admission to the fourth semester of the Associate of Applied Science in Nursing
Prerequisites: NURS A220 with a minimum grade of C and NURS A220L with a minimum grade of P and NURS A222 with a minimum grade of C and NURS A222L with a minimum grade of P and NURS A223 with a minimum grade of C and NURS A223L with a minimum grade of P.
Corequisites: NURS A225L.

NURS A225L Adult Nursing II Laboratory **3 Credits**
Provides clinical learning experiences in the care of adult medical-surgical clients with acute, complex and life-threatening disorders. Includes interprofessional (IP) collaborative learning experiences using simulation to integrate skills related to delegation, prioritization, communication, and management of small groups of clients.
Registration Restrictions: Admission to the fourth semester of the Associate of Applied Science in Nursing and completion of one oral communication elective, one GER elective with a minimum grade of C (may be concurrent), and one social science elective with a minimum grade of C (prerequisite)
Prerequisites: NURS A220 with a minimum grade of C and NURS A220L with a minimum grade of P and NURS A221 with a minimum grade of P and NURS A222 with a minimum grade of C and NURS A222L with a minimum grade of P.
Corequisites: NURS A225.

NURS A250 Psychiatric Nursing **3 Credits**
Focuses on the psychodynamics of the major mental illnesses and principles of psychiatric nursing across the lifespan. Emphasizes the application of nursing process and Maslow's Hierarchy of Needs along with adapting communication strategies to facilitate therapeutic intervention with patients who are experiencing mental health needs across the health-illness continuum and at varying developmental stages.
Registration Restrictions: Admission to the fourth semester of the Associate of Applied Science in Nursing
Prerequisites: NURS A220 with a minimum grade of C and NURS A220L with a minimum grade of P and NURS A222 with a minimum grade of C and NURS A222L with a minimum grade of P and NURS A223 with a minimum grade of C and NURS A223L with a minimum grade of P.
Corequisites: NURS A250L.

NURS A250L Psychiatric Nursing Laboratory **1 Credit**
Provides clinical experiences in care of the inpatient and outpatient psychiatric patients. Focuses on the application of nursing process and adapting communication strategies to facilitate therapeutic interventions with patients who are experiencing mental health needs across the health-illness continuum and at varying developmental stages (Maslow's Hierarchy of Needs is used in prioritizing nursing care).
Registration Restrictions: Admission to the fourth semester of the Associate of Applied Science in Nursing
Prerequisites: NURS A220 with a minimum grade of C and NURS A220L with a minimum grade of P and NURS A222 with a minimum grade of C and NURS A222L with a minimum grade of P and NURS A223 with a minimum grade of C and NURS A223L with a minimum grade of P.
Corequisites: NURS A250.

NURS A260 Transition to Professional Nursing **2 Credits**
Facilitates the development of knowledge necessary to prepare for nursing licensure, entry into practice and initial practice in the role of registered nurse.
Registration Restrictions: Admission to the College of Health and current admission to the final semester in the Associate of Applied Science in Nursing
Prerequisites: NURS A220 with a minimum grade of C and NURS A220L with a minimum grade of P and NURS A222 with a minimum grade of C and NURS A222L with a minimum grade of P and NURS A223 with a minimum grade of C and NURS A223L with a minimum grade of P.

NURS A295 Intensive Clinical Practicum **2 Credits**
Applies current and prerequisite clinical skills and knowledge in a concentrated clinical setting with one-to-one nursing preceptor.
Special Note: The student will spend 75 hours with assigned preceptor during an assigned period of time and 15 hours of reflective activities.
Registration Restrictions: Admission to the College of Health and current admission to the fourth semester of the Associate of Applied Science in Nursing
Prerequisites: NURS A220 with a minimum grade of C and NURS A220L with a minimum grade of P and NURS A222 with a minimum grade of C and NURS A222L with a minimum grade of P and NURS A223 with a minimum grade of C and NURS A223L with a minimum grade of P.

Nursing Science Graduate (NSG)

Courses

NSG A601 Advanced Pathophysiology **3 Credits**
Provides for advanced analysis and critical review of autonomy, advanced pathophysiology and genetics/genomics of disease processes that result in abnormal functioning of the human body across the lifespan. Fosters refinement of critical thinking to interpret pathophysiologic changes that result in clinical manifestations of illness.
Registration Restrictions: Graduate standing or faculty permission

NSG A602 Advanced Health Assessment in Primary Care **4 Credits**
Provides a systematic approach to advanced physical assessment and differential diagnoses. Develops advanced skills building on basic assessment knowledge and documentation. Incorporates individual, psychological, sociocultural, developmental, spiritual and genetic components of health.
Registration Restrictions: Admission to graduate nursing program

NSG A610 Pharmacology for Primary Care **3 Credits**
Advanced level pharmacology course that assists health care professionals in selecting, prescribing and monitoring of pharmaceutical agents utilized in the primary care setting. Legend drugs, over-the-counter agents and some complementary therapeutics will be discussed. Emphasis is on the pharmacodynamics of medications most commonly prescribed.
Registration Restrictions: Admission to graduate nursing program and current license to practice as a registered nurse in the state of Alaska.

NSG A611 Psychopharmacology for Advanced Nursing **3 Credits**
Develops expertise in applied psychopharmacology, preparing providers to select, prescribe and monitor pharmaceutical agents used in primary and psychiatric care settings.
Registration Restrictions: Admission to graduate nursing program

NSG A613 Advanced Practice Informatics **2 Credits**
Provides an evidence-based foundation in informatics and technology for advanced practice. Emphasizes evolving technologies, health communications and clinical information systems. Evaluates impact of technology on safety, access to care and quality of health care outcomes.
Registration Restrictions: Admission to graduate nursing program

NSG A614 Advanced Practice Ethics and Law **2 Credits**
Provides a foundation in ethics and law for advanced practice. Analyzes ethical theories and principles and their application to decision making in practice. Explores the interface between ethical decision making, legal and regulatory requirements, and their effects on the conduct of research, the influence of technology, and access to care.
Registration Restrictions: Admission to graduate nursing program

NSG A615 Health Services Organization and Finance **4 Credits**
Synthesizes organizational theories in the health care context. Develops advanced practice role in complex health care organizations. Plans the design, implementation and evaluation of quality health care practices applying principles of finance, quality outcomes and cost analysis. Implements strategic findings for organizational change, system change and positive population health outcomes.
Registration Restrictions: Admission to graduate nursing program

NSG A618 Role Development in Advanced Nursing **2 Credits**
Enhances knowledge of the many roles of nursing in health care and educational settings. Incorporates the American Association of Colleges of Nursing Master's Essentials into the curriculum and discusses contemporary nursing issues.
Registration Restrictions: Admission to graduate nursing program.

NSG A618A Advanced Nursing Leadership **2 Credits**
Enhances leadership skills of advance practice nurses to guide health care improvement, systems change and safety. Develops collaborative knowledge and practice improvement with an emphasis on population health management.
Registration Restrictions: Admission to graduate nursing program

NSG A619 Nursing Health Policy **2 Credits**
Analyzes the procedures by which governmental and private agencies make decisions that affect the health of populations groups. Explores the influence of lay, professional and special interest groups in relation to legislation, allocation of resources and the setting of health priorities. Examines current issues in health policy, focusing on how policy is changed, interpreted and implemented.
Registration Restrictions: Admission to graduate nursing program.

NSG A619A Health Economics **2 Credits**
Critically appraises health system economics and explores its impact on health outcomes. Applies advocacy and leadership strategies to analyze and implement policies to promote positive societal and economic outcomes.
Registration Restrictions: Admission to graduate nursing program

NSG A621 Knowledge Development for Advanced Nursing Practice **2 Credits**
Integrates theory and clinical evidence from nursing and other disciplines to explain and predict human responses to health and illness. Explores multiple paradigms of knowledge development. Critically analyzes and explores translation of theory into knowledge to improve practice, clinical decision making and health.
Registration Restrictions: Admission to the Master of Science in Nursing Science

NSG A627 Practice Inquiry I: The Nature of Evidence **3 Credits**
Explores the nature of evidence and appraises scholarly evidence-based projects focusing on problems of practice within specific health care populations. Employs research critiques, evidence tables and integrative evidence reviews.
Registration Restrictions: Graduate standing or instructor permission, and a minimum grade of C in undergraduate research/statistics course within the past five years
Prerequisites: NSG A621 with a minimum grade of B.

NSG A628 Practice Inquiry II: Design and Methods **3 Credits**
Explores advanced research design and methods. Develops acquisition of knowledge and skills appropriate to an advanced evidence-based clinical inquiry project, including conceptual, design and methodological technique.
Registration Restrictions: Admission to graduate nursing program. Baccalaureate to Doctor of Nursing Practice students must take NSG A627 prior to NSG A628.

NSG A629 Practice Inquiry III: Proposal Development **2 Credits**
Operationalizes clinical evidence-based practice project. Refines project to incorporate appropriate conceptual frameworks, designs and methods. Prepares written project proposal to address significant clinical, health policy, leadership or advanced nursing practice problem relevant to stakeholders.
Registration Restrictions: Admission to graduate nursing program
Prerequisites: NSG A628 with a minimum grade of B.

NSG A633 Statistics for Advanced Practice **3 Credits**
Explores bio-statistical methods used in nursing and health care research for clinical decision making, evidence-based practice, and program and policy evaluations. Emphasizes selection of appropriate statistical tests and interpretation and critique of data related to clinical practice and program assessment. Focuses on conceptual understanding rather than mathematical computation.
Registration Restrictions: Admission to graduate nursing program or graduate dietetics program

NSG A634 Epidemiology for Advanced Practice **2 Credits**
Explores epidemiologic techniques and methods. Analyzes clinical data sets. Critiques epidemiological study designs in clinical scenarios. Assesses causality and risk in clinical situations. Analyzes and interprets screening and diagnostic tests for advanced practice. Evaluates clinical practice using epidemiologic methods and statistical process controls to improve patient outcomes.
Registration Restrictions: Admission to graduate nursing program
Prerequisites: NSG A633 with a minimum grade of B.

NSG A637 Data Analysis: Qualitative **1 Credit**
Emphasizes qualitative research principles and methods of analysis. Applies qualitative analytic methods to clinical data sets. Focuses on ensuring validity, credibility and dependability. Facilitates interpretation and dissemination of qualitative research study findings.
Registration Restrictions: Admission to graduate nursing program
Prerequisites: NSG A628 with a minimum grade of B.

NSG A640 Teaching and Learning in the Professional Context **3 Credits**
Explores the role and expected competencies of the working professional as educator. Examines continuing professional education and addresses incorporation of adult learning theory and pedagogy into teaching practice for a variety of teaching environments within the professions. Focuses on planning lifelong learning and professional development for the nurse or other educator in the professions.
Special Note: Graduate students from other disciplines may take the course on a space-available basis and with instructor permission; coursework will be individualized to reflect the learner's profession of origin.
Registration Restrictions: Graduate standing in nursing or instructor permission

NSG A641 Developing Curriculum for Nursing and Other Professions **3 Credits**
Applies adult learning theory and pedagogy to design and develops curriculum with an emphasis on learner-centered instruction within the conceptual framework of nursing and other professions. Applies prominent design frameworks to ensure high-quality learner experience and achievement of learning objectives. Examines internal and external factors that drive or impact the curriculum.
Special Note: Graduate students from other disciplines may take the course on a space-available basis and with instructor permission; coursework will be individualized to reflect the learner's profession of origin.
Registration Restrictions: Graduate standing in nursing or instructor permission

NSG A643 Course and Curriculum Evaluation for Professionals **4 Credits**
Focuses on application of evaluation concepts, principles and evidence-based practices to develop appropriate metrics that assess learning outcomes, learner experiences, and instructional effectiveness in nursing and other professions. Applies professional and design quality standards and metrics to assess key educational components such as alignment, effectiveness and contextuality of the curriculum. Appraises teaching practice, cultural sensitivity and the overall learner experience. Examines evaluation at both the course and program levels.
Special Note: Graduate students from other disciplines may take the course on a space-available basis and with instructor permission; coursework will be individualized to reflect the learner's profession of origin.
Registration Restrictions: Graduate standing in nursing or instructor permission

NSG A644 Technology for Learning and Collaboration **2 Credits**
Acquires knowledge and understanding of methods and strategies for the incorporation of appropriate technology in continuing and professional education. Applies technological strategies to the development of learning units, including a rationale for the selection of technology. Incorporates discussion of relevance and staying abreast of current trends in nursing and other professional contexts.
Special Note: Graduate students from other disciplines may take this course on a space-available basis and with instructor permission; coursework will be individualized to reflect the learner's profession of origin.
Registration Restrictions: Graduate standing in nursing or instructor permission.
Prerequisites: NSG A640 with a minimum grade of B and NSG A641 with a minimum grade of B.

NSG A647 Evidence-Based Practicum for Nursing **3 Credits**
Applies leadership skills and evidence-based practice in a variety of nursing education or administrative settings. Develops and implements an evidence-based project. Participates in seminar to identify, analyze and solve education or administrative problems related to practicum.
Registration Restrictions: Graduate standing in nursing or instructor permission. Prior completion of required core and specialty courses with grade of B.

NSG A648 Nurse Leader and Educator Role **3 Credits**
Examines core concepts and health care trends that are essential to performing the role of nurse educator in an academic setting. Explores advanced nursing knowledge and leadership skills emphasizing quality and safety, health and nursing workforce policy, and nursing ethics. Develops organizational and system change strategies.
Registration Restrictions: Graduate standing and admission to the Master of Science in Nursing Science

NSG A649 Best Practices in Teaching and Learning in Nursing Education **4 Credits**
Explores the role of nurse educators and the competencies used to design courses. Applies learning science to the nurse educator role in a variety of settings.
Registration Restrictions: Graduate standing and admission to the Master of Science in Nursing Science

NSG A650 Evidence-Based Practice for Nursing Leaders **3 Credits**
Emphasizes advanced competencies in evidence-based nursing practice. Focuses on becoming a competent and ethical leader and educator.
Registration Restrictions: Graduate standing and admission to the Master of Science in Nursing Science

NSG A651 Advanced Pathophysiology, Pharmacology, and Health Assessment for Nurse Educators **4 Credits**
Synthesizes advanced knowledge of pathophysiology, pharmacology, and health assessment using an integrated approach for patient care. Explores teaching undergraduate nursing concepts and content emphasizing connections between the three subject areas. Includes a virtual laboratory experience.
Registration Restrictions: Graduate standing and admission to the Master of Science in Nursing Science

NSG A652 Technology and Informatics for Nurse Educators **3 Credits**
Explores the role of technology and informatics in nursing education and evidence-based practice. Stresses the legal and ethical use of informatics and technology to foster learning and improve healthcare outcomes. Explores ways to improve practice outcomes through effective collection and analysis of nursing data.
Registration Restrictions: Graduate standing and admission to the Master of Science in Nursing Science

NSG A653 Leadership Focus in Population Health **3 Credits**
Introduces epidemiologic principles and their applications to improve population health. Explores the social determinants of health and nurse leadership actions that influence nursing education, practice, and policy. Focuses on concepts in population health assessment, program design and development, and evaluation.
Registration Restrictions: Graduate standing and admission to the Master of Science in Nursing Science

NSG A654 Assessing Learning in Nursing Education **3 Credits**
Focuses on application of evaluation concepts, principles, and evidence-based practices. Develops appropriate metrics that assess learning outcomes, learner experiences, and instructional effectiveness in nursing education. Emphasizes test development, analysis, and the use of rubrics to assess performance and enhance learning.
Registration Restrictions: Graduate standing and admission to the Master of Science in Nursing Science

NSG A655 Curriculum Design and Program Assessment **3 Credits**
Focuses on curriculum design and program assessment in nursing. Examines concept-based and competency-based curriculum frameworks. Explores internal and external factors that drive or impact the curriculum. Emphasizes regulatory and accreditation standards used to develop a systematic plan for program assessment.
Registration Restrictions: Graduate standing and admission to the Master of Science in Nursing Science

NSG A656 Clinical Teaching, Simulation, and Evaluation **4 Credits**
Examines models of clinical learning in undergraduate nursing education. Applies best practices to clinical teaching and the design of simulation-based learning experiences. Focuses on supportive and ethical strategies to evaluate students' attainment of course outcomes and progress toward developing clinical competency.
Registration Restrictions: Graduate standing and admission to the Master of Science in Nursing Science

NSG A660 Family Nurse Practitioner I **5 Credits**
Develops advanced skills needed in primary care of pediatric patients and developing families, including advanced history and physical assessment skills for all pediatric age groups. Focuses on acquisition of skills and diagnostic evaluation methods required for management of pediatric patients and families. Explores influence of genetics and genomics on health.
Registration Restrictions: Admission to the Master of Science in Nursing Science Family Nurse Practitioner option or the Graduate Certificate in Family Nurse Practitioner
Prerequisites: NSG A661 with a minimum grade of B.

NSG A661 Family Nurse Practitioner II **4 Credits**
Develops advanced skills needed in primary care of female patients and their families, including history and physical assessment skills for women's health throughout the lifespan. Clinical focus and experience include acquisition of skills and diagnostic evaluation methods required for management of women's health and obstetric patients. Explores influence of genetics and genomics on women's health status.
Registration Restrictions: Admission to the Master of Science in Nursing Science Family Nurse Practitioner option or the Graduate Certificate in Family Nurse Practitioner
Prerequisites: NSG A602 with a minimum grade of B.

NSG A662 Family Nurse Practitioner III **5 Credits**
Continues preparation for advanced nursing practice. Concentrates on assessment, diagnosis, evidence-based management or the referral of adult and geriatric clients. Focuses on acute and chronic illnesses in adults but may include care of clients throughout the lifespan. Incorporates influence of genetics and genomics on health status.
Registration Restrictions: Admission to the Master of Science in Nursing Science Family Nurse Practitioner option or the Graduate Certificate in Family Nurse Practitioner
Prerequisites: NSG A661 with a minimum grade of B.

NSG A663 Family Nurse Practitioner IV **7 Credits**
Capstone course in preparation for family nurse practitioner role. Intensive clinical practicum incorporates professional and practice principles into primary care role. Focus includes common procedures and diagnostics as well as the influence of genetics and genomics on health status of clients throughout the lifespan.
Registration Restrictions: Admission to the Master of Science in Nursing Science Family Nurse Practitioner option or the Graduate Certificate in Family Nurse Practitioner
Prerequisites: NSG A662 with a minimum grade of B.

NSG A670 Advanced Practice Psychiatric and Mental Health Nursing I **6 Credits**
Develops advanced skills needed for the psychiatric mental health nurse practitioner role. Focuses on acquisition of knowledge related to assessment, diagnosis, treatment and evaluation. Emphasizes management of individuals across the lifespan at risk of experiencing mental health problems.
Registration Restrictions: Admission to the Master of Science in Nursing Science Psychiatric Mental Health Nurse Practitioner option or the Graduate Certificate in Psychiatric Mental Health Nurse Practitioner
Prerequisites: NSG A602 with a minimum grade of B.

NSG A671 Advanced Practice Psychiatric and Mental Health Nursing II **5 Credits**
Develops, applies and adapts advanced skills for practice as a psychiatric mental health nurse practitioner caring for families and groups. Focuses on acquisition of clinical knowledge and skills for evidence-based practice and promotion of mental health.
Registration Restrictions: Graduate standing and admission to the Master of Science in Nursing Science Psychiatric Mental Health Nurse Practitioner option or the Graduate Certificate in Psychiatric Mental Health Nurse Practitioner
Prerequisites: NSG A670 with a minimum grade of B.

NSG A672 Advanced Practice Psychiatric and Mental Health Nursing III **4 Credits**
Introduces the consultant/liaison role in organizational settings. Analyzes organizational approaches to plan, implement and evaluate population-focused mental health services. Identifies and evaluates fiscal and social policies, community resources, and research findings.
Registration Restrictions: Graduate standing and admission to the Master of Science in Nursing Science Psychiatric Mental Health Nurse Practitioner option or the Graduate Certificate in Psychiatric Mental Health Nurse Practitioner
Prerequisites: NSG A671 with a minimum grade of B.

NSG A673 Advanced Practice Psychiatric and Mental Health Nursing IV **6 Credits**
Capstone course in preparation for psychiatric mental health practitioner role. Intensive clinical practicum provides context for integration, synthesis and application of theory, research and clinical findings to facilitate mental and functional well-being in individuals, families and groups throughout the lifespan. Includes seminar to explore advance practice issues.
Registration Restrictions: Admission to the Master of Science in Nursing Science Psychiatric Mental Health Nurse Practitioner option or the Graduate Certificate in Psychiatric Mental Health Nurse Practitioner and graduate standing
Prerequisites: NSG A672 with a minimum grade of B.

NSG A684 Clinical Concentration **2-4 Credits**
Provides final integration of advanced practice skills and evidence-based knowledge in a practice environment of interest to the student. May include focused project implementation.
Special Note: May be repeated for a maximum of 4 credits.
Registration Restrictions: Graduate standing and admission to the Doctor of Nursing Practice in Nursing Science

NSG A695A Clinical Practicum in Population Health **2 Credits**
Develops competency in managing a population's health. Emphasizes population assessment, identification of problems/risks, developing interventions and evaluating program outcomes. Addresses change theories to promote health outcomes and equity in collaboration with populations, other health care professions, and organizations.
Registration Restrictions: Graduate standing and admission to the Master of Science in Nursing Science

NSG A695B Teaching Practicum **4 Credits**
Develops, implements, and evaluates learning experiences appropriate to meet course outcomes. Engages in teaching experiences, including classroom, clinical, skills, and simulation laboratory. Includes a two-day on-campus intensive focused on simulation.
Registration Restrictions: Graduate standing and admission to the Master of Science in Nursing Science

NSG A696A Practice Inquiry IV A: Capstone Project **2 Credits**
Develops evidence-based practice project in a clinical setting reflecting a topic of current concern within the specialty.
Registration Restrictions: Graduate standing and admission to the Doctor of Nursing Practice in Nursing Science

NSG A696B Practice Inquiry IV B: Capstone Project **2 Credits**
Implements evidence-based practice project in a clinical setting reflecting a topic of current concern within the specialty.
Registration Restrictions: Graduate standing and admission to the Doctor of Nursing Practice in Nursing Science
Prerequisites: NSG A696A with a minimum grade of B.

NSG A696C Practice Inquiry IV C: Capstone Project **2 Credits**
Collects and analyzes data for evidence-based practice project to generate findings and conclusions related to clinical practice. Defends capstone project and disseminates findings.
Registration Restrictions: Graduate standing and admission to the Doctor of Nursing Practice in Nursing Science
Prerequisites: NSG A696B with a minimum grade of B.

Nursing Science (NS)

Courses

NS A204 Technology and Nursing Informatics **3 Credits**
Concepts and applications of nursing informatics in health care organizations. Evaluate the impact of technology on nursing practice and on client education, including privacy and security issues. Explore electronic resources available to clients and nurses.
Registration Restrictions: Admission to the Bachelor of Science in Nursing or RN licensure in the state of Alaska
Prerequisites: (PHIL A101 with a minimum grade of D or PHIL A201 with a minimum grade of D) or ENGL A120 with a minimum grade of D.
Corequisites: NS A216 AND NS A300.

NS A205 Nursing Informatics **3 Credits**
Concepts and applications of nursing informatics in health care organizations. Explore electronic resources available to clients and nurses.
Registration Restrictions: Admission to the Bachelor of Science in Nursing and/or RN licensure in the state of Alaska

NS A216 Pathophysiology **4 Credits**
Basic conceptual study of disease and the resultant abnormal functioning. Key concepts are utilized to assist students to develop knowledge and understanding of basic physiologic mechanisms of and responses to disease.
Special Note: Offered fall and spring semesters.
Registration Restrictions: Admission to the Bachelor of Science in Nursing and/or RN licensure in the state of Alaska
Prerequisites: (BIOL A112 with a minimum grade of C and BIOL A112L with a minimum grade of C) and (CHEM A104 with a minimum grade of C and CHEM A104L with a minimum grade of C).
Corequisites: NS A204 AND NS A300.

NS A230 Pathophysiology for Health Professions **3 Credits**
Introduces students to basic physiologic mechanisms of and responses to disease. Focuses on disease processes and resulting abnormal functions.
Registration Restrictions: Admission to the Associate of Applied Science in Nursing or the Bachelor of Science in Nursing

NS A231 Pharmacology for Health Professions **3 Credits**
Introduces pharmacokinetics and pharmacodynamics. Describes prescription and non-prescription drug use across the lifespan of patients and populations with varying health needs. Emphasizes technological advances in medication safety, genetics and genomics, and health promotion.
Registration Restrictions: Admission to the Bachelor of Science in Nursing
Prerequisites: NS A230 with a minimum grade of C and NS A332 with a minimum grade of C and NS A332L with a minimum grade of P and NS A332P with a minimum grade of P and NS A333 with a minimum grade of C and NS A333L with a minimum grade of P and NS A334 with a minimum grade of C.
Corequisites: NS A231L.

NS A231L Pharmacology for Health Professions Lab **1 Credit**
Focuses on medication administration techniques, including, but not limited to, oral, topical, injectable and intravenous routes. Highlights medication administration safety issues and correct administration processes. Introduces medication dosage calculation formulas.
Registration Restrictions: Admission to the Bachelor of Science in Nursing.
Prerequisites: NS A230 with a minimum grade of C and NS A332 with a minimum grade of C and NS A332L with a minimum grade of P and NS A332P with a minimum grade of P and NS A333 with a minimum grade of C and NS A333L with a minimum grade of P and NS A334 with a minimum grade of C.
Corequisites: NS A231.

NS A300 Foundations of Nursing I: Roles, Processes, and Trends **3 Credits**
Introduces concepts, theories and processes that inform the discipline of nursing, ethical and legal standards that govern nursing practice, and intellectual, interpersonal and technical competencies required of the professional nurse. Examines the development of professional nursing, nursing roles and practice environments, and contemporary issues and trends.
Registration Restrictions: Admission to the Bachelor of Science in Nursing
Prerequisites: PHIL A101 with a minimum grade of C or PHIL A201 with a minimum grade of C or ENGL A120 with a minimum grade of C.

NS A303 Foundations of Nursing Practice: Therapeutics **3 Credits**
Focuses on systematic use of the nursing process to care for individuals in a variety of settings. Emphasizes identifying physiological and psychosocial alterations in health patterns and basic therapeutic nursing interventions.
Special Note: Offered fall, spring and summer semesters.
Registration Restrictions: Admission to the Bachelor of Science in Nursing
Prerequisites: NS A204 with a minimum grade of C and NS A216 with a minimum grade of C and NS A300 with a minimum grade of C.
Corequisites: NS A303L AND NS A309.

NS A303L Foundations of Nursing Practice: Therapeutics Laboratory **4.5 Credits**
Utilizes the nursing process and the performance of therapeutic nursing interventions in the laboratory and clinical settings.
Registration Restrictions: Admission to the Bachelor of Science in Nursing
Prerequisites: NS A204 with a minimum grade of C and NS A216 with a minimum grade of C and NS A300 with a minimum grade of C.
Corequisites: NS A303 AND NS A309.

NS A305 Health Assessment of Individuals **2 Credits**
Focuses on health assessment across the lifespan with an emphasis on interviewing and data collection, interpretation and documentation. Provides the skills for developing a systematic approach to performing a health history and physical examination.
Special Note: Offered only in Fall semester.
Registration Restrictions: Admission to the Bachelor of Science in Nursing and RN licensure in the state of Alaska
Corequisites: NS A305L.

NS A305L Health Assessment of Individuals Laboratory **1 Credit**
Laboratory experience to apply knowledge and skills introduced in NS A305.
Registration Restrictions: Admission to the Bachelor of Science in Nursing and RN licensure in the state of Alaska
Corequisites: NS A305.

NS A307 Foundations of Nursing Practice: Health Assessment Theory **1 Credit**
Develops the knowledge and skills necessary to perform an adult health assessment. Emphasizes integration of the nursing process in patient-centered health assessments, including risk assessment and reduction. Uses a variety of learning techniques to teach physical, psychological, sociocultural and spiritual approaches to health assessment.
Registration Restrictions: Admission to the Bachelor of Science in Nursing
Prerequisites: NS A204 with a minimum grade of C and NS A216 with a minimum grade of C and NS A300 with a minimum grade of C.
Corequisites: NS A307L.

NS A307L Foundations of Nursing Practice: Health Assessment Laboratory **2 Credits**
Develops the knowledge and skills necessary to perform an adult health assessment. Emphasizes integration of the nursing process in patient-centered health assessments, including risk assessment and reduction. Uses a variety of techniques to teach physical, psychological, sociocultural and spiritual approaches to health assessment.
Registration Restrictions: Admission to the Bachelor of Science in Nursing
Prerequisites: NS A204 with a minimum grade of C and NS A216 with a minimum grade of C and NS A300 with a minimum grade of C.
Corequisites: NS A307.

NS A308 Dimensions of Professional Nursing Practice **3 Credits**
Facilitates the RN student's return to school to the baccalaureate nursing program. Introduces the theories, concepts, roles, and competencies relevant to professional nursing practice. The history of nursing provides the context for exploring the evolution of nursing as a profession. Examines current social, political, and legal issues and trends in health care and their implications for nursing practice and the RN student's goals for professional development.
Registration Restrictions: Admission to the Bachelor of Science in Nursing

NS A309 Pharmacology in Nursing **3 Credits**
In-depth consideration of the use of prescription and non-prescription drugs by individuals at varying developmental levels and with differing health status. Within the context of the nursing process, students develop the knowledge and skills needed to safely administer drugs, to assist clients to develop decision- making skills to enable independent management of drug regiments, to evaluate clients' responses to drug therapy, and to prevent and minimize toxicity.
Registration Restrictions: Admission to Bachelor of Science in Nursing or RN licensure in the state of Alaska.
Prerequisites: NS A204 with a minimum grade of C and NS A216 with a minimum grade of C and NS A300 with a minimum grade of C.

NS A313 Health Disruptions I **3 Credits**
Introduces episodic health disruptions occurring across the lifespan to include collaborative care and nursing management. Nursing therapeutics focus on nursing management of the individual and the family within an acute care setting.
Registration Restrictions: Admission to the Bachelor of Science in Nursing
Prerequisites: NS A204 with a minimum grade of C and NS A216 with a minimum grade of C and NS A300 with a minimum grade of C and NS A303 with a minimum grade of C and NS A303L with a minimum grade of P and NS A307 with a minimum grade of C and NS A307L with a minimum grade of C and NS A309 with a minimum grade of C.
Corequisites: NS A313L.

NS A313L Health Disruptions I Laboratory **3 Credits**
Introduces episodic health disruptions occurring across the lifespan to include collaborative care and nursing management. Emphasizes psychomotor competencies associated with clinical conditions in the clinical setting. Focuses on nursing management of the individual and the family within the acute care setting.
Registration Restrictions: Admission to the Bachelor of Science in Nursing
Prerequisites: NS A303 with a minimum grade of C and NS A303L with a minimum grade of P and NS A307 with a minimum grade of C and NS A307L with a minimum grade of C and NS A309 with a minimum grade of C.
Corequisites: NS A313.

NS A314 Health I for Registered Nurses **2 Credits**
Emphasizes health promotion, illness prevention, and health protection strategies for individuals and families across the lifespan to achieve and maintain healthy lifestyles and self-management of health. Introduces concepts of community health nursing, epidemiology, and injury prevention.
Special Note: Offered only in Spring semester.
Registration Restrictions: Admission to the Bachelor of Science in Nursing and RN licensure in the state of Alaska
Prerequisites: NS A308 with a minimum grade of C.
Corequisites: NS A314L.

NS A314L Health I for Registered Nurses Laboratory **2 Credits**
Provides clinical experience to build skills and reinforce student learning in NS A314.
Special Note: Offered only in Spring semester.
Registration Restrictions: Admission to the Bachelor of Science in Nursing and RN licensure in the state of Alaska
Prerequisites: NS A308 with a minimum grade of C.
Corequisites: NS A314.

NS A315 Health I: Nursing Therapeutics **3 Credits**
Emphasizes health states and risk factors amenable to health promotion and illness prevention efforts. Focuses on achieving and maintaining healthy lifestyles as well as self-management of health in individuals and families across the lifespan.
Registration Restrictions: Admission to the Bachelor of Science in Nursing
Prerequisites: NS A204 with a minimum grade of C and NS A216 with a minimum grade of C and NS A300 with a minimum grade of C and NS A303 with a minimum grade of C and NS A303L with a minimum grade of P and NS A309 with a minimum grade of C and NS A313 with a minimum grade of C and NS A313L with a minimum grade of P.
Corequisites: NS A315L.

NS A315L Health I: Nursing Therapeutics Laboratory **3 Credits**
Provides clinical experience to build skills and reinforce student learning in NS A315.
Registration Restrictions: Admission to the Bachelor of Science in Nursing
Prerequisites: NS A204 with a minimum grade of C and NS A216 with a minimum grade of C and NS A300 with a minimum grade of C and NS A303 with a minimum grade of C and NS A303L with a minimum grade of P and NS A309 with a minimum grade of C and NS A313 with a minimum grade of C and NS A313L with a minimum grade of P.
Corequisites: NS A315.

NS A332 Fundamentals of the Nursing Profession: Theory **3 Credits**
Introduces concepts, theories and processes that inform the discipline of nursing, as well as intellectual, interpersonal and technical competencies required of the professional nurse. Examines the history of professional nursing, nursing roles and practice environments, and contemporary issues and trends.
Registration Restrictions: Admission to the Bachelor of Science in Nursing.
Corequisites: NS A332L AND NS A332P.

NS A332L Fundamentals of the Nursing Profession: Skills **2 Credits**
Introduces safety, concepts and standards of skill provision in nursing practice. Exposes students to hands-on practice of skills that will be used in the clinical setting. Skills are practiced in laboratory and/or simulation settings.
Registration Restrictions: Admission to the Bachelor of Science in Nursing
Corequisites: NS A332 AND NS A332P.

NS A332P Fundamentals of the Nursing Profession: Practicum **1 Credit**
Applies the nursing process and the performance of therapeutic nursing interventions. Introductory simulation and clinical experiences.
Registration Restrictions: Admission to the Bachelor of Science in Nursing
Prerequisites: NS A230 with a minimum grade of C and NS A231 with a minimum grade of C and NS A231L with a minimum grade of C.
Corequisites: NS A332 AND NS A332L.

NS A333 Assessment and Health Promotion of Diverse Populations: Theory **3 Credits**
Develops the knowledge and skills necessary for nursing assessment and health promotion. Emphasizes human health ecology models and patient-centered health assessments, including social determinants of health, risk assessment and health promotion.
Registration Restrictions: Admission to the Bachelor of Science in Nursing
Corequisites: NS A333L.

NS A333L Assessment and Health Promotion of Diverse Populations: Lab **1 Credit**
Practices the knowledge and skills used in nursing assessment and health promotion. Emphasizes health history and systematic physical health assessment.
Registration Restrictions: Admission to the Bachelor of Science in Nursing
Corequisites: NS A333.

NS A334 Nursing Informatics and Introduction to Evidence-Based Practice **3 Credits**
Explains the nursing role in health information technology including electronic medical records, telehealth systems, and data security. Introduces acquiring evidence for nursing practice using library resources. Development of digital nursing school portfolio.
Registration Restrictions: Admission to the Bachelor of Science in Nursing

NS A388 Nursing Care of Adult Medical-Surgical Patients I: Theory **3 Credits**
Introduces episodic health disruptions occurring across adulthood to include collaborative care and nursing management. Nursing therapeutics focus on nursing management of the individual and the family within an acute care setting.
Registration Restrictions: Admission to the Bachelor of Science in Nursing
Prerequisites: NS A230 with a minimum grade of C and NS A332 with a minimum grade of C and NS A332L with a minimum grade of P and NS A332P with a minimum grade of P and NS A333 with a minimum grade of C and NS A333L with a minimum grade of P and NS A334 with a minimum grade of C.
Corequisites: NS A388L AND NS A388P.

NS A388L Nursing Care of Adult Medical-Surgical Patients I: Skills **2 Credits**
Applies current and prerequisite nursing coursework to foster increasingly difficult skill acquisition. Skills are practiced in a laboratory and/or simulation setting.
Registration Restrictions: Admission to the Bachelor of Science in Nursing
Prerequisites: NS A230 with a minimum grade of C and NS A332 with a minimum grade of C and NS A332L with a minimum grade of P and NS A332P with a minimum grade of P and NS A333 with a minimum grade of C and NS A333L with a minimum grade of P and NS A334 with a minimum grade of C.
Corequisites: NS A388 AND NS A388P.

NS A388P Nursing Care of Adult Medical-Surgical Patients I: Practicum **3 Credits**
Applies current and prerequisite nursing coursework to patient care in clinical settings and/or simulation with adult medical-surgical patients. Focuses on demonstration of the nursing process with clinical judgement.
Registration Restrictions: Admission to the Bachelor of Science in Nursing
Prerequisites: NS A230 with a minimum grade of C and NS A332 with a minimum grade of C and NS A332L with a minimum grade of P and NS A332P with a minimum grade of P and NS A333 with a minimum grade of C and NS A333L with a minimum grade of P and NS A334 with a minimum grade of C.
Corequisites: NS A388 AND NS A388L.

NS A389 Nursing Care of Mental and Behavioral Health Disruptions: Theory **3 Credits**
Applies mental health nursing principles, pharmacology and theory to the care of clients with mental and behavioral health disruptions. Explores continuity of care for individuals with mental and behavioral health disruptions across care settings.
Registration Restrictions: Admission to the Bachelor of Science in Nursing
Prerequisites: NS A230 with a minimum grade of C and NS A332 with a minimum grade of C and NS A332L with a minimum grade of P and NS A332P with a minimum grade of P and NS A333 with a minimum grade of C and NS A333L with a minimum grade of P and NS A334 with a minimum grade of C.
Corequisites: NS A389P.

NS A389P Nursing Care of Mental and Behavioral Health Disruptions: Practicum **1 Credit**
Applies current and prerequisite nursing coursework to an assigned clinical setting and/or simulation with individuals with mental or behavioral health disruptions. Focuses on demonstration of the nursing process and communication skills.
Registration Restrictions: Admission to the Bachelor of Science in Nursing
Prerequisites: NS A230 with a minimum grade of C and NS A332 with a minimum grade of C and NS A332L with a minimum grade of P and NS A332P with a minimum grade of P and NS A333 with a minimum grade of C and NS A333L with a minimum grade of P and NS A334 with a minimum grade of C.
Corequisites: NS A389.

NS A400 Nursing Research and Evidence-Based Practice **3 Credits**
Identifies researchable questions, problem formulation, research design, data collection and analysis. Explores roles of professional nurses and strategies for the application of nursing research findings in clinical practice.
Registration Restrictions: Admission to the Bachelor of Science in Nursing, if prerequisites are not met, then RN licensure in the state of Alaska is required.
Prerequisites: NS A231 with a minimum grade of C and NS A231L with a minimum grade of P and NS A388 with a minimum grade of C and NS A388L with a minimum grade of P and NS A388P with a minimum grade of P and NS A389 with a minimum grade of C and NS A389P with a minimum grade of P.

NS A401 Health Disruptions II **3 Credits**
Emphasis on episodic health disruptions in specialty-focused care. Nursing therapeutics focus on care of individuals, families and environments.
Registration Restrictions: Admission to the Bachelor of Science in Nursing
Prerequisites: NS A313 with a minimum grade of C and NS A313L with a minimum grade of P and NS A315 with a minimum grade of C and NS A315L with a minimum grade of P.
Corequisites: NS A401L.

NS A401L Health Disruptions II Laboratory **2.5 Credits**
Provides clinical experience to build skills and reinforce student learning in NS A401.
Registration Restrictions: Admission to the Bachelor of Science in Nursing
Prerequisites: NS A313 with a minimum grade of C and NS A313L with a minimum grade of P and NS A315 with a minimum grade of C and NS A315L with a minimum grade of P.
Corequisites: NS A401.

NS A406 Nursing Therapeutics in Complex Health Disruptions **2.5 Credits**
Emphasizes health disruptions with complex pathophysiology and/or psychological adjustments of clients of all ages and their families. Nursing management includes a high level of collaboration with other health care providers and agencies utilizing previously learned nursing therapeutics.
Registration Restrictions: Admission to the Bachelor of Science in Nursing
Corequisites: NS A400 AND NS A401 AND NS A401L AND NS A406L.

NS A406L Nursing Therapeutics in Complex Health Disruptions Laboratory **2.5 Credits**
Provides clinical experience to build skills and reinforce student learning in NS A406.
Registration Restrictions: Admission to the Bachelor of Science in Nursing
Prerequisites: NS A401 with a minimum grade of C and NS A401L with a minimum grade of P.
Corequisites: NS A406.

NS A411 Population Health Integrative Capstone **3 Credits**
Focuses on the role of the nurse in care of populations and/or vulnerable groups. Prepares students to conduct applied research to complete a Population Health Integrative Capstone project.
Registration Restrictions: Admission to the Bachelor of Science in Nursing, completion of all Tier 1 GER courses, and senior standing
Prerequisites: NS A400 with a minimum grade of C and NS A401 with a minimum grade of C and NS A401L with a minimum grade of P and NS A406 with a minimum grade of C and NS A406L with a minimum grade of P.
Corequisites: NS A411L.
Attributes: UAA Integrative Capstone GER, UAA Intercultural Fluency GER.

NS A411L Population Health Integrative Capstone Laboratory **2.5 Credits**
Clinical experience and fieldwork to build skills and reinforce student learning in NS A411 Population Health Integrative Capstone project.
Registration Restrictions: Admission to the Bachelor of Science in Nursing (either pre-licensure or RN-BS option)
Prerequisites: NS A400 with a minimum grade of C and NS A401 with a minimum grade of C and NS A401L with a minimum grade of P and NS A406 with a minimum grade of C and NS A406L with a minimum grade of P.
Corequisites: NS A411.

NS A415 Nursing Management and Legal Perspectives **4 Credits**
Theories of management and organizations for basic students in relation to health care delivery systems. Emphasis is on the role of the professional nurse in health care organizations. Provides an overview of skills and techniques used for effective leadership and management of health care services. Exploration of legal implications and perspectives in nursing practice.
Registration Restrictions: Admission to the Bachelor of Science in Nursing
Prerequisites: NS A313 with a minimum grade of C and NS A315 with a minimum grade of C.

NS A416 Concentration in Clinical Nursing **0.5 Credits**
Facilitates the integration and synthesis of knowledge basic to a beginning professional level of nursing practice. A major emphasis upon analyzing and evaluating issues arising in the practice setting.
Registration Restrictions: Admission to the Bachelor of Science in Nursing
Prerequisites: NS A400 with a minimum grade of C and NS A401 with a minimum grade of C and NS A401L with a minimum grade of P and NS A406 with a minimum grade of C and NS A406L with a minimum grade of P and NS A411 with a minimum grade of C and NS A411L with a minimum grade of P and NS A415 with a minimum grade of C.
Corequisites: NS A416L.

NS A416L Concentration in Clinical Nursing Lab **3.5 Credits**
Application of clinical skills acquired throughout the BS Nursing program in a clinical setting incorporating research, management, and theory in delivering nursing care to individuals, families, and populations.
Registration Restrictions: Admission to the Bachelor of Science in Nursing
Prerequisites: NS A400 with a minimum grade of C and NS A401 with a minimum grade of C and NS A401L with a minimum grade of P and NS A406 with a minimum grade of C and NS A406L with a minimum grade of P and NS A411 with a minimum grade of C and NS A411L with a minimum grade of P and NS A415 with a minimum grade of C.
Corequisites: NS A416.

NS A430 Rural Health Care **3 Credits**
Analysis of rural health care from a problem-solving framework. Alaskan communities are utilized as a focus for the course.
Registration Restrictions: Admission to the Bachelor of Science in Nursing, if prerequisites are not met, then RN licensure in the state of Alaska is required.
Prerequisites: NS A300 with a minimum grade of C.
Attributes: UAA Alaska Native-Themed GER.

NS A431 Human Sexuality in Health and Illness **3 Credits**
Explores physiological, psychological and social nature of human sexuality and implications for the role of the professional nurse. Emphasizes the sexual behavior of individuals and groups and the impact of illness on sexuality.
Registration Restrictions: Admission to the Bachelor of Science in Nursing, if prerequisites are not met, then RN licensure in the state of Alaska is required.
Prerequisites: NS A300 with a minimum grade of C and NS A303 with a minimum grade of C and NS A303L with a minimum grade of P and NS A309 with a minimum grade of C.

NS A442 Introduction to Forensic Nursing **3 Credits**
Provides an overview of forensic nursing. Explores the etiology of interpersonal violence, intentional injury, and trauma in relation to victim and/or perpetrator populations. Develops understanding of the collaborative and multidisciplinary role of this specialty.
Registration Restrictions: Admission to the Bachelor of Science in Nursing and RN licensure in the state of Alaska.
Prerequisites: NS A313 with a minimum grade of C and NS A313L with a minimum grade of P and NS A315 with a minimum grade of C and NS A315L with a minimum grade of P.

NS A451 Introduction to Neonatal Intensive Care Nursing **3 Credits**
Introduces neonatal critical care nursing. Includes the pathophysiology and nursing management of common neonatal disease states, developmentally-focused nursing care of premature and newborn infants, and current issues and trends in neonatal nursing.
Registration Restrictions: Admission to the Bachelor of Science in Nursing or instructor permission
Prerequisites: NS A452 with a minimum grade of C or concurrent enrollment and NS A453 with a minimum grade of C or concurrent enrollment.

NS A452 Nursing Care of Children and Their Families: Theory **3 Credits**
Provides an overview of the professional roles of the pediatric nurse. Examines pediatric growth, development and milestone assessment. Emphasizes communication, anticipatory guidance and family-centered care with play and safety. Delineates common clinical issues addressed with evidence-based care, and the dynamic relationship between nurse, child and family.
Registration Restrictions: Admission to the Bachelor of Science in Nursing
Prerequisites: NS A231 with a minimum grade of C and NS A231L with a minimum grade of P and NS A388 with a minimum grade of C and NS A388L with a minimum grade of P and NS A388P with a minimum grade of P and NS A389 with a minimum grade of C and NS A389P with a minimum grade of P.
Corequisites: NS A452P.

NS A452P Nursing Care of Children and Their Families: Practicum **1 Credit**
Applies current and prerequisite nursing coursework to care of children and their families across clinical settings and/or simulation experiences. Focuses on the nursing process and family-centered care.
Registration Restrictions: Admission to the Bachelor of Science in Nursing
Prerequisites: NS A231 with a minimum grade of C and NS A231L with a minimum grade of P and NS A388 with a minimum grade of C and NS A388L with a minimum grade of P and NS A388P with a minimum grade of P and NS A389 with a minimum grade of C and NS A389P with a minimum grade of P.
Corequisites: NS A452.

NS A453 Nursing Care of Childbearing Families and Sexual Health: Theory **3 Credits**
Examines health problems affecting infants and pregnant women. Highlights impact of common maternal-child health problems in terms of morbidity, mortality, psychological well-being, reproduction and growth. Explores the epidemiology of maternal-child diseases including sexual and reproductive disorders. Introduces programs and resources available within the community.
Registration Restrictions: Admission to the Bachelor of Science in Nursing
Prerequisites: NS A231 with a minimum grade of C and NS A231L with a minimum grade of P and NS A388 with a minimum grade of C and NS A388L with a minimum grade of P and NS A388P with a minimum grade of P and NS A389 with a minimum grade of C and NS A389P with a minimum grade of P.
Corequisites: NS A453P.

NS A453P Nursing Care of Childbearing Families and Sexual Health: Practicum **1 Credit**
Applies current and prerequisite nursing coursework to various clinical settings and/or simulations with childbearing families and/or individuals seeking care for sexual or reproductive health. Focuses on the nursing process specific to this population.
Registration Restrictions: Admission to the College of Health and admission to the Bachelor of Science in Nursing
Prerequisites: NS A231 with a minimum grade of C and NS A231L with a minimum grade of P and NS A388 with a minimum grade of C and NS A388L with a minimum grade of P and NS A388P with a minimum grade of P and NS A389 with a minimum grade of C and NS A389P with a minimum grade of P.
Corequisites: NS A453.

NS A454 Nursing Care of Communities and Populations: Theory **3 Credits**
Focuses on the role of the nurse in care of communities, populations and/or vulnerable groups. Prepares students to conduct applied research to complete a population health project.
Registration Restrictions: Admission to the Bachelor of Science in Nursing
Prerequisites: NS A400 with a minimum grade of C and NS A452 with a minimum grade of C and NS A452P with a minimum grade of P and NS A453 with a minimum grade of C and NS A453P with a minimum grade of P and NS A471 with a minimum grade of C and NS A471P with a minimum grade of P.
Corequisites: NS A454P.

NS A454P Nursing Care of Communities and Populations: Practicum **2 Credits**
Applies current and prerequisite nursing coursework in various community clinical settings and/or simulation. Focus on development and delivery of community or population-based project.
Registration Restrictions: Admission to the Bachelor of Science in Nursing
Prerequisites: NS A400 with a minimum grade of C and NS A452 with a minimum grade of C and NS A452P with a minimum grade of P and NS A453 with a minimum grade of C and NS A453P with a minimum grade of P and NS A471 with a minimum grade of C and NS A471P with a minimum grade of P.
Corequisites: NS A454.

NS A471 Nursing Care of Adult Medical-Surgical Patients II: Theory **3 Credits**
Develops more advanced classifications, etiology, pathophysiology, diagnostics, acute interventions, and ongoing management of chronic conditions to include education and collaboration in the care of adult medical-surgical patients. Introduces high-acuity medical management of acute and chronic illnesses.
Registration Restrictions: Admission to the Bachelor of Science in Nursing
Prerequisites: NS A231 with a minimum grade of C and NS A231L with a minimum grade of P and NS A388 with a minimum grade of C and NS A388L with a minimum grade of P and NS A388P with a minimum grade of P and NS A389 with a minimum grade of C and NS A389P with a minimum grade of P.
Corequisites: NS A471P.

NS A471P Nursing Care of Adult Medical-Surgical Patients II: Practicum **2 Credits**
Applies current and prerequisite nursing coursework to an in-patient clinical setting or simulation with more acute or multiple adult medical-surgical patients. Focuses on building independence with assessment and the nursing process.
Registration Restrictions: Admission to the Bachelor of Science in Nursing
Prerequisites: NS A231 with a minimum grade of C and NS A231L with a minimum grade of P and NS A388 with a minimum grade of C and NS A388L with a minimum grade of P and NS A388P with a minimum grade of P and NS A389 with a minimum grade of C and NS A389P with a minimum grade of P.
Corequisites: NS A471.

NS A472 Nursing Leadership and Management **3 Credits**
Merges theory, research and practical application in key leadership and management nursing roles. Examines the basic concern for safe and effective care. Describes communication, collaboration, team-building and other interpersonal skills that form the foundation of effective nursing leadership.
Registration Restrictions: Admission to the Bachelor of Science in Nursing
Prerequisites: NS A400 with a minimum grade of C and NS A452 with a minimum grade of C and NS A452P with a minimum grade of P and NS A453 with a minimum grade of C and NS A453P with a minimum grade of P and NS A471 with a minimum grade of C and NS A471P with a minimum grade of P.

NS A473 NCLEX Review and Career Coaching **1 Credit**
Facilitates the integration and synthesis of knowledge to prepare for nursing licensure through a comprehensive review. Teaches the students how to market oneself for post-graduation opportunities and helps students to create a professional persona.
Registration Restrictions: Admission to the Bachelor of Science in Nursing
Prerequisites: NS A400 with a minimum grade of C and NS A452 with a minimum grade of C and NS A452P with a minimum grade of P and NS A453 with a minimum grade of C and NS A453P with a minimum grade of P and NS A471 with a minimum grade of C and NS A471P with a minimum grade of P.

NS A474P Nursing Practicum Immersion **3 Credits**
Applies current and prerequisite nursing coursework to an intensive clinical immersion experience. Fosters independent nursing care with one-to-one nursing preceptor.
Registration Restrictions: Admission to the Bachelor of Science in Nursing
Prerequisites: NS A400 with a minimum grade of C and NS A452 with a minimum grade of C and NS A452P with a minimum grade of P and NS A453 with a minimum grade of C and NS A453P with a minimum grade of P and NS A471 with a minimum grade of C and NS A471P with a minimum grade of P.

NS A475 Nursing Integrative Capstone **3 Credits**
Utilizes techniques of reflection and the core concepts of baccalaureate nursing education to complete an integrative capstone project.
Registration Restrictions: Admission to the Bachelor of Science in Nursing
Prerequisites: NS A400 with a minimum grade of C and NS A452 with a minimum grade of C and NS A452P with a minimum grade of P and NS A453 with a minimum grade of C and NS A453P with a minimum grade of P and NS A471 with a minimum grade of C and NS A471P with a minimum grade of P.
Attributes: UAA Integrative Capstone GER.

NS A490 Selected Topics in Nursing Practice **3 Credits**
Enhances and extends students' understanding of a selected topic.
Special Note: May repeat once with a change of topic.
Registration Restrictions: Admission to the Bachelor of Science in Nursing or RN license in the state of Alaska
Prerequisites: NS A204 with a minimum grade of C and NS A216 with a minimum grade of C and NS A300 with a minimum grade of C.

Occupational Safety & Health (OSH)

Courses

OSH A100 Basic Workplace Safety **1 Credit**
Introduces the training, recognition, avoidance, abatement and prevention of safety and health hazards in the workplace. Includes direct interaction with local employers and industry representatives. Includes case studies and enriching activities.
Special Note: Students who complete this course may meet the requirements for an OSHA-10 card. Does not fulfill a major requirement for the Associate of Applied Science in Occupational Safety and Health or the Bachelor of Science in Occupational Safety and Health.

OSH A101 Introduction to Occupational Safety and Health **3 Credits**
Introduces regulatory, consensus and industrial standards applicable to the occupational safety and health profession. Examines the role of the safety professional and the philosophy of incident prevention in the workplace.

OSH A108 Industrial Safety **3 Credits**
Provides an overview of hazards associated with common industrial processes and practices, hazard avoidance and risk mitigation efforts (including safe work practices), and organizational emergency preparedness and response considerations.

OSH A111 Occupational Safety Training Needs and Methods **3 Credits**
Introduces safety and health training needs in the workplace and includes development of training materials to conduct training sessions for diverse audiences. Emphasizes regulatory compliance.
Prerequisites: WRTG A111 with a minimum grade of C or WRTG A1W with a minimum grade of C.

OSH A120 Safety Program Management and Recordkeeping **3 Credits**
Discusses the role of safety in business and government. Emphasizes the philosophy of safety and health efforts by management. Examines the role of the safety professional, the types of safety management systems utilized in the workplace, and the techniques used for accurate recordkeeping.

OSH A160 Fundamentals of Industrial Hygiene **3 Credits**
Provides a basic understanding of industrial hygiene. Focuses on introducing students to concepts, terminology, methodology and the roles of industrial hygienists.
Prerequisites: (BIOL A100 with a minimum grade of C or BIOL A102 with a minimum grade of C or (BIOL A111 with a minimum grade of C and BIOL A111L with a minimum grade of C)) and (MATH A104 with a minimum grade of C or MATH A105 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A211 with a minimum grade of C or MATH A212 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C) and OSH A108 with a minimum grade of C.

OSH A201 Hazard Control: Inspections, Audits and Investigations **3 Credits**
Covers assessment and evaluation of workplace hazards through inspections, audits and incident investigations. Includes practical applications and special emphasis on conducting incident investigations.
Prerequisites: OSH A108 with a minimum grade of C.

OSH A211 Safety Management Systems **4 Credits**
Examines the role of safety programs in the workplace. Emphasizes safety program standards, assessment, design, development, implementation, and evaluation.
Prerequisites: (WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C) and OSH A120 with a minimum grade of C.

OSH A215 Environmental Issues for Safety and Health Professionals **3 Credits**
Analyzes and interprets requirements for preventing air, surface water, ground water and soil contamination from industrial operations. Places special emphasis on petrochemical contamination of arctic lands and waters. Familiarizes occupational safety and health students with environmental regulations and requirements.
Prerequisites: OSH A108 with a minimum grade of C.

OSH A230 Principles of Ergonomics **3 Credits**
Examines workplace ergonomics, emphasizing types and sources of physiological stressors and their mitigation.
Prerequisites: BIOL A100 with a minimum grade of C or BIOL A102 with a minimum grade of C or (BIOL A111 with a minimum grade of C and BIOL A111L with a minimum grade of C).

OSH A240 Workplace Monitoring: Instrumentation and Calibration **3 Credits**
Examines the equipment used in performing measurements of environmental factors in the workplace, including noise, lighting, vibration, chemicals and heat stress. Emphasizes equipment types, applications and calibration. Evaluates environmental factors found in Alaska workplaces.
Prerequisites: OSH A160 with a minimum grade of C.

OSH A250 Hazardous Materials Operations **3 Credits**
Identifies the policies, procedures and equipment needed to manage hazardous materials emergency response and cleanup.
Prerequisites: OSH A108 with a minimum grade of C.

OSH A305 Incident Investigation and Analysis **3 Credits**
Analyzes the needs and responsibilities for reporting and investigating incidents; defines and discusses the types of incidents; explores various investigation techniques; and prepares students to interview witnesses, determine causes and corrective actions, and prepare reports.
Prerequisites: OSH A201 with a minimum grade of C.

OSH A310 Human Factors **3 Credits**
Discusses the human factors that must be evaluated when designing and engineering work stations and job tasks. Explores and evaluates the basics of human perceptual, cognitive and motor abilities relevant to the workplace and their impact upon workers' safety and health.
Registration Restrictions: Junior or senior standing
Prerequisites: OSH A230 with a minimum grade of C.

OSH A360 Industrial Hygiene for the Safety Professional **3 Credits**
Assesses acute and chronic health effects of exposures to chemical, physical, and biological agents in the workplace. Emphasizes data gathering and analysis for the performance of workplace monitoring for the safety professional.
Prerequisites: OSH A160 with a minimum grade of C.

OSH A375 Process Safety Management **3 Credits**
Introduces the current theory and practice of process safety, with emphasis on petrochemicals. Explores the technical, legal and management concepts necessary for the prevention of toxic chemical releases and catastrophes.
Prerequisites: OSH A211 with a minimum grade of C and OSH A250 with a minimum grade of C and OSH A360 with a minimum grade of C.

OSH A390 Selected Topics in Occupational Safety and Health **1-3 Credits**
Covers various topics not normally taught on a scheduled basis in OSH. Course content determined by industry needs.
Special Note: May be repeated for a maximum of 9 credits with change of subtitle.
Registration Restrictions: Department approval

OSH A405 Construction Industry Safety Management **3 Credits**
Focuses on the recognition, control and management of hazards encountered in the construction industry. Analyzes safety and health hazards to develop plans and programs that mitigate or eliminate hazards. Includes a detailed discussion of 29 CFR Part 1926.

OSH A420 Legal Aspects of Safety **3 Credits**
Analyzes and evaluates the common legal, ethical and professional issues that safety and health professionals may encounter in the workplace. Topics explored include OSHA and AKOSH, EPA and ADEC, Bureau of Safety and Environmental Enforcement (BSSE), Mine Safety and Health Administration (MSHA), Workers' Compensation, and common liability issues.
Prerequisites: (PHIL A303 with a minimum grade of C or PHIL A305 with a minimum grade of C) and OSH A215 with a minimum grade of C.

OSH A450 Risk Management for Safety and Health **3 Credits**
Focuses on identification, evaluation, and control of workplace hazards and risks using loss control techniques and the risk management process. Emphasizes integration of risk management strategies into daily operations.
Prerequisites: OSH A305 with a minimum grade of C and STAT A200 with a minimum grade of C.

OSH A460 Economic Value of Safety **3 Credits**
Integrates professional, communication and analytical skills with general education knowledge to evaluate costs and savings associated with developing and maintaining health and safety programs. Assesses and calculates the effects of injuries and incidents on organizations' productivity and profits. Requires a comprehensive written report and an oral presentation at the end of the class.
Registration Restrictions: Admission to the Community & Technical College and junior or senior standing
Prerequisites: OSH A450 with a minimum grade of C or concurrent enrollment.
Attributes: UAA Integrative Capstone GER.

OSH A495 Advanced Occupational Safety and Health Internship **3 Credits**
Provides career development and exploration through experience by placement in a workplace safety position. Requires interns to perform duties directly related to occupational safety and health management functions.

Paramedical Technology (PMED)

Courses

PMED A241 Paramedicine I **6 Credits**
Presents the knowledge for paramedic practice, including patient assessment, anatomy and physiology, pathophysiology, airway management, pharmacology, intravascular access, medication administration and related emergency service fundamentals. Students will learn to formulate patient impressions and implement treatment plans.
Special Note: There are additional applications and fees for students who wish to be certified with the State of Alaska and/or National Registry.
Registration Restrictions: Current Alaska Emergency Medical Technician (EMT) or National Registry Emergency Medical Technician, and admission to the Associate of Applied Science in Paramedical Technology
Corequisites: PMED A241L AND PMED A242.

PMED A241L Paramedicine I Lab **2 Credits**
Presents the knowledge for paramedic practice, including patient assessment, anatomy and physiology, pathophysiology, airway management, pharmacology, intravascular access, medication administration and related emergency service fundamentals. Students will learn to formulate patient impressions and implement treatment plans.
Special Note: Students must have the strength to be able to move victims, sufficient vision and hearing to assess the patient's condition, and dexterity to perform the skills application procedures. There are additional applications and fees for students who wish to be certified with the State of Alaska and/or National Registry.
Registration Restrictions: Current Alaska Emergency Medical Technician (EMT) or National Registry Emergency Medical Technician, and admission to the Associate of Applied Science in Paramedical Technology
Corequisites: PMED A241 AND PMED A242.

PMED A242 Clinical Rotation I **4 Credits**
Paramedic assessments and skills are performed in hospital emergency departments, operating rooms and respiratory therapy. Clinical rotations are supervised by preceptors/mentors and provide the student with experiences working with actual patients. Skills are also performed on ambulances on the Kenai Peninsula and the Mat-Su Valley under the supervision of licensed paramedics.
Special Note: Students must have the strength to be able to move victims, sufficient vision and hearing to assess the patient's condition, and dexterity to perform the skills application procedures.
Registration Restrictions: Current Alaska Emergency Medical Technician (EMT) or National Registry Emergency Medical Technician, and admission to the Associate of Applied Science in Paramedical Technology
Corequisites: PMED A241 AND PMED A241L.

PMED A253 Paramedicine II **6 Credits**
Presents the knowledge for paramedic practice, including patient assessments, anatomy and physiology, pathophysiology and pharmacology of a patient suffering from different medical complaints. Students will learn to formulate patient impressions and implement their appropriate treatment plans.
Special Note: Students must have the strength to be able to move victims, sufficient vision and hearing to assess the patient's condition, and dexterity to perform the skills application procedures.
Prerequisites: PMED A241 with a minimum grade of B and PMED A241L with a minimum grade of B and PMED A242 with a minimum grade of B.
Corequisites: PMED A253L AND PMED A254.

PMED A253L Paramedicine II Lab **2 Credits**
Presents the knowledge for paramedic practice, including patient assessments, anatomy and physiology, pathophysiology and pharmacology of a patient suffering from different medical complaints. Students will learn to formulate patient impressions and implement appropriate treatment plans.
Special Note: Students must have the strength to be able to move victims, sufficient vision and hearing to assess the patient's condition, and dexterity to perform the skills application procedures.
Prerequisites: PMED A241 with a minimum grade of B and PMED A241L with a minimum grade of B and PMED A242 with a minimum grade of B.
Corequisites: PMED A253 AND PMED A254.

PMED A254 Clinical Rotation II **4 Credits**
Students perform patient assessments, skills and treatments during various in-hospital clinicals and on paramedic level ambulances. Students are directly supervised by preceptors/mentors who provide the student with opportunities to assess and treat actual patients.
Special Note: Students must have the strength to be able to move victims, sufficient vision and hearing to assess the patient's condition, and dexterity to perform the skills application procedures.
Prerequisites: PMED A241 with a minimum grade of B and PMED A241L with a minimum grade of B and PMED A242 with a minimum grade of B.
Corequisites: PMED A253 AND PMED A253L.

PMED A263 Paramedicine III **6 Credits**
Presents the knowledge for paramedic practice, including patient assessments, anatomy and physiology, pathophysiology and pharmacology of a patient suffering from different trauma complaints. Students will learn to formulate patient impressions and implement treatment plans for special populations and will incorporate training in EMS operations.
Special Note: Students must have the strength to be able to move victims, sufficient vision and hearing to assess the patient's condition, and dexterity to perform the skills application procedures.
Prerequisites: PMED A253 with a minimum grade of B and PMED A253L with a minimum grade of B and PMED A254 with a minimum grade of B.
Corequisites: PMED A263L AND PMED A264.

PMED A263L Paramedicine III Lab **2 Credits**
Demonstrates the knowledge for paramedic practice through skills and scenarios including patient assessments, anatomy and physiology, pathophysiology and pharmacology of a patient suffering from different trauma complaints. Students will also practice formulating patient impressions and implement treatment plans for special populations and will incorporate training in EMS operations.
Special Note: Students must have the strength to be able to move victims, sufficient vision and hearing to assess the patient's condition, and dexterity to perform the skills application procedures.
Prerequisites: PMED A253 with a minimum grade of B and PMED A253L with a minimum grade of B and PMED A254 with a minimum grade of B.
Corequisites: PMED A263 AND PMED A264.

PMED A264 Clinical Rotation III **4 Credits**
Students perform patient assessments, skills and treatments during various in-hospital clinicals and on paramedic level ambulances. Students are directly supervised by preceptors/mentors who provide the student with opportunities to assess and treat actual patients.
Special Note: Students must have the strength to be able to move victims, sufficient vision and hearing to assess the patient's condition, and dexterity to perform the skills application procedures.
Prerequisites: PMED A253 with a minimum grade of B and PMED A253L with a minimum grade of B and PMED A254 with a minimum grade of B.
Corequisites: PMED A263 AND PMED A263L.

PMED A295 Paramedic Internship **12 Credits**
The paramedic program's field internship is a culmination of knowledge, skills, critical thinking and decision making in real-world emergencies. Demonstration of competence is required by the end of a 480-hour internship. A successful course summative written and practical exam is required before taking the National Registry paramedic certification exam.
Special Note: Students are responsible for all expenses associated with their field internship (i.e., travel, room & board, food, etc.).
Registration Restrictions: Instructor approval
Prerequisites: PMED A263 with a minimum grade of B and PMED A263L with a minimum grade of B and PMED A264 with a minimum grade of B.

Petroleum Technology (PETR)

Courses

PETR A130 Remotely Actuated Valves **4 Credits**
Introduces terminology, symbolism and basic principles for installation and maintenance of remotely actuated valves encountered in industrial process instrumentation.
Registration Restrictions: Admission to the Associate of Applied Science in Industrial Process Instrumentation, Associate of Applied Science in Process Technology, Undergraduate Certificate in Petroleum Technology or Occupational Endorsement Certificate in Valve Installation and Maintenance

PETR A131 Mechanically Actuated Valves **2 Credits**
Introduces terminology, symbolism and basic principles for installation and maintenance of mechanically actuated valves encountered in industrial process instrumentation.
Registration Restrictions: Admission to the Associate of Applied Science in Industrial Process Instrumentation, Associate of Applied Science in Process Technology, Undergraduate Certificate in Petroleum Technology or Occupational Endorsement Certificate in Valve Installation and Maintenance

PETR A155 Process Industry Basics **3 Credits**
Introduces reading of various process drawings. Covers basic piping and tubing systems, and plant operations including safety procedures, communications, and planning. Overview of various measuring tools and techniques, basic industrial hand tools, and their safe and effective use.
Prerequisites: MATH A055 with a minimum grade of C or MATH A105 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A211 with a minimum grade of C or MATH A212 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C.

PETR A240 Industrial Process Instrumentation III **3 Credits**
Presents details of the installation and application of continuous process instruments in closed feedback control loops. Includes practice of functional check-out procedures on physical hardware. Introduces ladder logic used for discrete control of processes.
Prerequisites: PRT A144 with a minimum grade of C.

PETR A244 Industrial Process Instrumentation IV **3 Credits**
Explores techniques used in designing and optimizing control loops. Develops methods for testing and optimizing feedback and feed forward control loops, and introduces loop implementation methods in digital control environments.
Prerequisites: (MATH A105 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A211 with a minimum grade of C or MATH A212 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C) and PETR A240 with a minimum grade of C.

Pharmacy Technology (PHAR)

Courses

PHAR A101 Introduction to Pharmacy **3 Credits**
Introduces pharmacy practice and the technician's role in various pharmacy settings, with a focus on the outpatient setting. Emphasizes the history of pharmacy, pharmacy law and ethics, pharmacy and medical terminology, prescription processing, and dosage forms. Includes review of the most-prescribed drugs.

PHAR A105 Pharmacology for Technicians I **3 Credits**
Introduces drug terms, definitions, origins and uses with an emphasis on factors affecting drug actions and adverse reactions. Provides overview of pharmacology, pharmacodynamics and pharmacokinetics. Focuses on respiratory, gastrointestinal, urinary, cardiovascular, recombinant and nutritional drugs, as well as vaccines and vitamins.
Special Note: This is one part of a two course sequence. Courses can be taken independently of each other.

PHAR A107 Pharmacy Calculations **3 Credits**
Provides students with the interpretive skills to read, decode and process a variety of prescriptions requiring mathematical computations. Introduces the basic concepts needed to calculate oral, parenteral, pediatric and elderly drug dosages. Includes calculation skills for interpreting intravenous flow rates, and compounding.
Prerequisites: MATH A054 with a minimum grade of C or MATH A104 with a minimum grade of C or MATH A105 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A211 with a minimum grade of C or MATH A212 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C or ALEKS Overall Test 1 with a score of 017 or ALEKS Overall Test 2 with a score of 017 or ALEKS Overall Test 3 with a score of 017 or ALEKS Overall Test 4 with a score of 017 or ALEKS Overall Test 5 with a score of 017.

PHAR A111 Techniques of Pharmacy Practice **3 Credits**
Explores pharmacy practice and the technician's role in various pharmacy settings, with a focus on the inpatient setting. Emphasizes billing, inventory management, repackaging, non-sterile and sterile compounding, and medication safety. Includes review of the most-prescribed drugs.

PHAR A115 Pharmacology for Technicians II **3 Credits**
Introduces drug terms, definitions and uses with an emphasis on factors affecting drug actions and adverse reactions. Focuses on drugs for the nervous, endocrine, dermatological, musculoskeletal and reproductive systems, as well as medications used for the skin, eyes, ears, nose and throat.
Special Note: This is one part of a two course sequence. Courses can be taken independently of each other.

PHAR A192 Professional Practice of the Pharmacy Technician **1 Credit**
Explores current issues in the field of pharmacy and provides an in-depth study of relevant topics such as federal pharmacy law, technician career preparation and medication safety, with an emphasis on ethical principles.

Philosophy (PHIL)

Courses

PHIL A101 Introduction to Logic **3 Credits**
Develops formal and informal reasoning skills, introduces deductive logic via statement logic, analyzes arguments and introduces scientific and inductive reasoning, reviews common fallacies and methods for evaluating arguments.
Attributes: UAA Humanities GER.

PHIL A103 Introduction to World Philosophies and Religions **3 Credits**
Introduces students to religious traditions and their views about reality, knowledge, and value. Surveys Eastern philosophies and religions, the Abrahamic monotheistic traditions, and Alaska Native and other Indigenous Traditions. Emphasizes beliefs, norms, practices, and contemporary issues.
Attributes: UAA Humanities GER.

PHIL A201 Introduction to Philosophy **3 Credits**
Emphasizes problems of knowledge, reality, good and evil from a global philosophical perspective.
Attributes: UAA Humanities GER.

PHIL A211 Ancient and Medieval Philosophy **3 Credits**
Primarily surveys Western philosophy from the pre-Socratic era through the late Middle Ages. Traces development of scientific, metaphysical, epistemological and ethical thought with emphasis on pivotal historical figures and debates.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER.

PHIL A212 Early Modern Philosophy **3 Credits**
Surveys philosophy from the Scientific Revolution through German Idealism (Modern Period). Traces the development of scientific, metaphysical, epistemological and ethical thought with emphasis on historical texts.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER.

PHIL A301 Ethics **3 Credits**
Introduces major theories in metaethics, normative ethics and applied ethics, and the arguments of important moral philosophers from Euro-American and non-Euro-American traditions. Emphasizes critical reasoning, as well as evaluation and analysis of arguments. Includes the application of ethical theory to contemporary moral issues, such as distributive justice, environmental and animal issues, abortion, terrorism, and euthanasia.
Prerequisites: WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C or WRTG A2W with a minimum grade of C.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER.

PHIL A302 Biomedical Ethics **3 Credits**
Explores current bioethical issues affecting the delivery of health care services in Alaska and beyond. Explores theories of ethics and related principles as a basis for professional decision-making and public policy determination. Focuses on the process of ethical inquiry and its relevance for contemporary health practices, research and education.
Prerequisites: WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C or WRTG A2W with a minimum grade of C.

PHIL A303 Environmental Ethics **3 Credits**
Critically examines central philosophical questions regarding human attitudes toward the environment, including non-human animals. Explores the ideas of nature in philosophy and the moral basis to preserve and protect environmental systems. Examines arguments and philosophical perspectives regarding the moral status of animals and concerns such as species extinction and wilderness management, anthropogenic climate change, sustainability, effects of environmental harms to people, deforestation, obligations to future generations, indigenous ecological philosophies, agricultural land development and use, food security and policy, contemporary technological interventions applied to nature, and human overpopulation. Considers local and global policy frameworks and institutions best suited to address these concerns.
Registration Restrictions: Junior or senior standing

PHIL A305 Professional Ethics **3 Credits**
Focuses on the duties of professionals to their clients and society, and examines the dilemmas that are created when these duties come in conflict with one another and with the duties of general morality. Uses case studies highlighting issues in engineering, information technology, law, medicine, journalism and other professions.
Prerequisites: WRTG A111 with a minimum grade of C or WRTG A1W with a minimum grade of C or EVIDENCE-BASED READ/WRIT SCORE with a score of 610 or Enhanced ACT English with a score of 30.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER.

PHIL A309 Mind and Machines **3 Credits**
Focuses on central philosophical questions about the mind, such as the nature of consciousness, mental causation, the location of perceptual qualities like color in the mind or the world, personal identity, and the mind/body problem. Examines the mind's intimate connection with contemporary psychology, biology, neuro- and cognitive sciences, and what these insights imply for human freedom. Includes topics in science and technology studies related to the agency of persons and of artificial beings, such as cognitive abilities of robots or computers, and the moral rights of artificial intelligent beings.
Registration Restrictions: Junior standing recommended.
Prerequisites: PHIL A101 with a minimum grade of C or PHIL A201 with a minimum grade of C.

PHIL A311 Truth and Reality **3 Credits**
Focuses on the topics of existence, universals and particulars, individuals and classes, change and the persistence of objects and persons, knowledge and belief, internalism and externalism, perception, materialism, truth, and reality.
Registration Restrictions: Junior or senior standing
Prerequisites: PHIL A101 with a minimum grade of C or PHIL A201 with a minimum grade of C.

PHIL A313 Eastern Philosophy and Religion **3 Credits**
Studies Eastern philosophical and religious traditions, particularly Hinduism, Buddhism, Daoism and Confucianism. Includes studying basic concepts, tenets and practices of these traditions and related modern developments.
Prerequisites: WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C or WRTG A2W with a minimum grade of C.
Attributes: UAA Intercultural Fluency GER.

PHIL A314 Abrahamic Religions **3 Credits**
Examines three monotheistic religions--Judaism, Christianity, and Islam. Covers basic tenets, practices and histories of the monotheisms. Examines the intersections of religion with contemporary concerns such as gender, ethnicity, and violence.
Prerequisites: WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C or WRTG A2W with a minimum grade of C.
Attributes: UAA Intercultural Fluency GER.

PHIL A321 God, Self, and the Afterlife **3 Credits**
Explores and examines current issues from global and Indigenous perspectives in philosophy of religion including topics such as the existence of God, the nature of divine attributes, the problem of evil, science and religion, the meaningfulness of religious language, the epistemology of religious experience with an emphasis on critical reasoning, argument evaluation, and analysis.
Prerequisites: PHIL A101 with a minimum grade of C or PHIL A201 with a minimum grade of C or PHIL A211 with a minimum grade of C or PHIL A212 with a minimum grade of C or PHIL A301 with a minimum grade of C.

PHIL A350 Contemporary Social and Political Philosophy **3 Credits**
Evaluates the philosophical merits of contemporary (20th Century to present) theories of justice, government, citizenship, culture, and society. Theories are explored in light of their foundations in ethics, epistemology, and metaphysics. Topics include, but are not limited to, the justification of human rights, democracy, and critical theories of society.
Prerequisites: WRTG A111 with a minimum grade of C or WRTG A1W with a minimum grade of C or WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C or WRTG A2W with a minimum grade of C.

PHIL A401 Aesthetics **3 Credits**
Investigates the nature of art, beauty and the creative process from both an historical and theoretical perspective, utilizing Western and global philosophies of art and beauty. Issues concerning the relationship between art and ethics will be examined, including controversies regarding art and pornography, art and censorship, and art and ownership.
Registration Restrictions: Junior or senior standing

PHIL A406 Philosophy of Law **3 Credits**
Considers various philosophical accounts of the nature of law and grounds of its authority; the relationship between law and morality; connections between law and political ideals such as liberty, equality, and economic well-being; and methods of constitutional interpretation. Addresses contemporary controversies in the law such as civil disobedience, criminal responsibility, capital punishment, property rights, religious freedom, freedom of speech, and affirmative action.

PHIL A415 Feminist Philosophy **3 Credits**
Examines women's position in the writings of prominent thinkers in the Western philosophical canon; contemporary theories concerning the nature of gender and its intersection with race, class, and sexuality; and feminist contributions to philosophical inquiry in ethics, social/political philosophy, theories of knowledge, and/or the philosophy of science.
Registration Restrictions: WSGS A200 or 6 credits in philosophy, and junior standing.

PHIL A490 Topics in Contemporary Philosophy **3 Credits**
An intensive and detailed study of a topic in contemporary philosophy in a seminar format.
Special Note: May be repeated twice with a change in subtitle.
Registration Restrictions: Junior or senior standing
Prerequisites: PHIL A211 with a minimum grade of C and PHIL A212 with a minimum grade of C.

PHIL A490A Selected Topics in Ethics, Community, and Society **3 Credits**
Integrates study of a selected topic on a global ethical issue and the interests and responsibilities of individuals, communities and societies. Topics may vary from semester to semester.
Special Note: May be repeated for a maximum of 6 credits with instructor approval.
Registration Restrictions: Completion of GER Tier 1 (basic college-level skills) courses and junior standing (at least 60 credit hours)
Prerequisites: PHIL A301 with a minimum grade of C.
Attributes: UAA Integrative Capstone GER, UAA Intercultural Fluency GER.

PHIL A498 Senior Research Project **3 Credits**
Senior-level course in which the student will engage in independent research on a topic of his or her choosing under the supervision of a faculty member. The course culminates with the completion of a research paper of significant length prepared to publication standards.
Registration Restrictions: Senior standing, 9 credits of philosophy in addition to the prerequisites, and faculty permission.
Prerequisites: PHIL A101 with a minimum grade of C and PHIL A201 with a minimum grade of C and PHIL A211 with a minimum grade of C and PHIL A212 with a minimum grade of C and PHIL A301 with a minimum grade of C.

Physical Education & Recreation (PER)

Courses

PER A100 Fitness for Life **2 Credits**
Introduces key concepts associated with lifetime personal fitness. Presents a variety of physical activities for improved health-related fitness. Combines lecture with lab sessions.

PER A101 Fitness Cross Training **1 Credit**
Introduces a variety of cross training exercise formats for total fitness. Develops individual fitness through a variety of workouts.

PER A103 Indoor Stationary Cycling **1 Credit**
Introduces the basic skills and concepts associated with indoor cycling. Applies basic principles of cycling through active participation. Introduces key concepts related to lifetime fitness.

PER A107 Aerobic Kickboxing **1 Credit**
Presents the fundamentals of medium-intensity kickboxing, martial arts-based aerobics, and interval training for improved physical fitness.
Special Note: May be repeated for credit.

PER A113 Beginning Pilates **1 Credit**
Introduces Pilates as an effective way to improve strength and flexibility. Covers basic fitness concepts and exercises which target development of core strength (abdomen, lower back, buttocks, hips, and thighs) by utilizing one's own body weight for resistance.
Special Note: May be repeated for credit.

PER A116 Circuit Training **1 Credit**
Presents circuit training as a way to improve strength, physical conditioning, and general sports performance. Covers cardiorespiratory training, flexibility exercises, and safe techniques for improved muscular strength and endurance.

PER A118 Beginning Weight Training **1 Credit**
Introduces key concepts related to techniques and skill development in progressive resistance strength training. Presents resistance exercises to strengthen and condition major muscle groups.
Special Note: May be repeated for credit.

PER A120 Beginning Yoga **1 Credit**
Introduces yoga physical exercises, breathing, relaxation and concentration techniques as an approach to wellness.
Special Note: May be repeated for credit.

PER A130 Beginning Tennis **1 Credit**
Introduces basic skills and knowledge to play singles and doubles tennis. Applies basic principles of tennis through active participation.
Special Note: May be repeated for credit.

PER A134 Beginning Pickleball **1 Credit**
Introduces the sport of pickleball as a fast paced, self officiated net and racquet game. Covers rules, strategies, technique, and preparation for play. Includes extensive active practice and play.

PER A135 Beginning Swimming **1 Credit**
Introduces proper breathing techniques and basic strokes for those with little or no swimming background. Emphasizes personal water safety.
Special Note: May be repeated for credit.

PER A143 Beginning Hockey **1 Credit**
Introduces the basic skills and knowledge associated with playing hockey. Applies basic principles of hockey through active participation.

Special Note: Students must supply their own equipment to include skates, pads, and a full face guard helmet. May be repeated for credit.

PER A146 Beginning Rock Climbing **1 Credit**
Introduces the fundamentals of rock climbing in Alaska. Covers hazard evaluation and risk assessment, selection of personal gear, technical needs, and safety equipment. Provides opportunity to practice knots, rope handling, belay, basic descending techniques and top-rope rock climbing.
Special Note: Requires ability to function comfortably in inclement weather. May be repeated for credit.

PER A147 Beginning Ice Climbing **1 Credit**
Introduces the fundamentals of ice climbing in Alaska. Covers hazard evaluation and risk assessment, selection of personal gear, technical needs, and safety equipment. Introduces knots, rope handling, belay, basic descending techniques, and top-rope ice climbing.
Special Note: Requires ability to function comfortably in extremely cold temperatures and inclement weather. May be repeated for credit.

PER A148 Beginning Indoor Sport Climbing **1 Credit**
Introduces the fundamentals of sport climbing in an indoor environment. Provides opportunity to practice knots, rope handling, belaying, descent techniques, and top-rope climbing on an indoor climbing wall.
Special Note: May be repeated for credit.

PER A150 Water Safety and Rescue **1 Credit**
Introduces course participants to hazards and mitigation techniques for safe travel on rivers, lakes, and oceans. Covers basic safety and rescue theories, procedures, and techniques that are effective in contributing to safe and enjoyable water travel.
Special Note: Must be able to swim. Must have good level of physical fitness. May require purchase or rental of additional equipment. Must be able to function comfortably in inclement weather.

PER A152 Beginning River Rafting **1 Credit**
Introduces the most commonly used equipment, techniques, and risks found in the sport of river rafting. Includes instruction on equipment selection, trip planning, preparing to paddle/row, and minimum impact practices with an emphasis on risk assessment and risk management.
Special Note: Requires good backcountry camping skills and the ability to function comfortably in inclement weather. An overnight field outing may be included in the course. Students may need to rent or purchase additional gear. May be repeated for credit.

PER A153 Beginning Sea Kayaking **1 Credit**
Introduces the fundamentals of sea kayaking in Alaska. Includes the most commonly used equipment, techniques, and risks. Provides instruction in selecting equipment, trip planning, transporting boats, preparing to paddle, boat handling, re-entry techniques, and sea kayaking strokes. Emphasizes risk assessment and safety skills.
Special Note: Requires good backcountry camping skills and the ability to function comfortably in inclement weather. An overnight field outing may be included in the course. Students may need to rent or purchase additional gear for this course. May be repeated for credit.

PER A156 Beginning Packrafting **1 Credit**
Introduces the most commonly used equipment, techniques, challenges, and risks found in the sport of packrafting. Includes instruction on equipment selection, trip planning, preparing to paddle and minimum impact practices with an emphasis on risk assessment and risk management.
Special Note: Requires good backcountry camping skills and the ability to function comfortably in inclement weather. An overnight field outing may be included in the course. Students may need to rent or purchase additional gear. Students may be able to build a DIY packraft with the purchase of a DIY packraft kit. May be repeated for credit.

PER A160 Beginning Cross-Country Ski: Classic Stride **1 Credit**
Introduces fundamentals of diagonal-stride (classic) cross-country skiing. Covers selection of ski and safety equipment, skiing skills, and trail ethics. Highlights recognition and prevention of cold-weather injuries.
Special Note: Requires ability to perform comfortably in extremely cold and inclement weather. Students may need to rent or purchase additional equipment for this course. May be repeated for credit.

PER A163 Beginning Alpine Skiing **1 Credit**
Introduces the fundamentals of downhill alpine skiing. Covers hazard evaluation, selection of personal ski and safety equipment, recognition and prevention of cold-weather injuries, skiing skills, and etiquette.
Special Note: Students may be required to rent or purchase equipment and/or lift tickets for outings. Requires ability to perform comfortably in extremely cold and/or inclement weather. May be repeated for credit.

PER A164 Skiing Alaska's Backcountry **2 Credits**
Introduces skills needed to ski and snowboard off-trail. Covers techniques for traveling on rolling and inclined terrain, negotiating side hills, and skiing inclines and declines of up to 40 degrees. Covers selecting personal and group safety equipment, evaluating avalanche hazards and assessing risk.
Special Note: Course includes a American Avalanche Association approved Level 1 avalanche course. Requires ability to function comfortably in extremely cold or inclement weather. A good level of physical fitness is required. Ability to ski/snowboard at intermediate level to be determined in first field session. Students may need to rent or purchase additional equipment for this course. May be repeated for credit.

PER A165 Avalanche Hazard Recognition and Evaluation **1 Credit**
Introduces travel techniques in avalanche-prone backcountry terrain. This is a field-oriented backcountry avalanche course covering rescue, terrain analysis, snow study, stability, evaluation, route-finding, decision-making and safe travel techniques.
Special Note: Requires a good level of physical fitness. May require purchase or rental of additional equipment. Requires travel in mountainous terrain. Must have ability to function comfortably in inclement weather. May be repeated for credit.

PER A167 Dog Mushing **1 Credit**
Introduces the sport of dog mushing, including the sport's history, dog breeds, training and feeding needs, kennel-management routines, and dog-handling skills.
Special Note: Requires ability to function comfortably in extremely cold and/or inclement weather. May be repeated for credit.

PER A168 Winter Camping Alaska **1 Credit**
Introduces winter camping in Alaska. Covers selection of personal, group, and safety equipment appropriate for an overnight outing. Emphasizes snow shelter construction and learning to assess risk in the field. Course includes an overnight outing.
Special Note: Requires good physical condition and ability to perform comfortably in extremely cold and/or inclement weather. An overnight field outing may be included in the course. Students may need to rent or purchase additional gear. May be repeated for credit.

PER A169 Four-Season Backpacking **3 Credits**
Introduces four-season backpacking in Alaska. Selection of personal and group safety equipment appropriate for a backpacking trip during any season. Presents trip planning, prevention and assessment of cold injuries, frontcountry and backcountry navigation, avalanche hazard evaluation and rescue techniques. Emphasizes risk assessment and risk management.
Special Note: Requires good backcountry camping skills, good physical fitness level and ability to perform comfortably in extremely cold and/or inclement weather. Students may need to rent or purchase additional equipment for this course.

PER A170 Backpack Alaska **3 Credits**
Provides an introduction to backpacking in Alaska. Covers trip planning and selection of personal, group, and safety equipment appropriate for overnight trips. Presents the opportunity during overnight outings to practice hazard evaluation, navigation, and backpacking skills.
Special Note: Requires good physical condition and ability to function comfortably in inclement weather. An overnight field outing may be included in the course. Students may need to rent or purchase additional gear. May be repeated for credit.

PER A171 Outdoor Adventure in Alaska **2 Credits**
Provides an overview of basic outdoor skills commonly used and enjoyed in Alaska. Covers trip preparation, equipment selection and maintenance, introduction to map and compass, and learning to assess risk in the field. Includes season-dependent activities such as day hiking, backpacking, rock climbing or sea kayaking.
Special Note: Requires good physical fitness and ability to function comfortably in inclement weather. Students may need to rent or purchase additional equipment for this course. May be repeated for credit.

PER A173 Beginning Mountaineering **1 Credit**
Applies backpacking and climbing techniques to an alpine mountain environment. Includes instruction on alpine climbing, glacier-travel, and crevasse-rescue techniques. Introduces roped team travel and trip planning with an emphasis on risk assessment and hazard mitigation in an alpine environment.
Special Note: Requires excellent physical condition and the ability to function comfortably in extremely cold and/or inclement weather. Additional equipment may need to be purchased or rented for this course. Includes an overnight field outing. May be repeated for credit.
Prerequisites: PER A181 with a minimum grade of C.

PER A181 Crevasse Rescue Techniques **1 Credit**
Introduces the most commonly used equipment, techniques, and risks associated with crevasse rescue. Provides information for minimizing the chance of a crevasse fall and implementing a successful extrication. Emphasizes risk assessment and technical skill acquisition.
Special Note: Requires the ability to perform comfortably in extremely cold and/or inclement weather. Field sessions include all-day clinics and may include overnight outings. May be repeated for credit.

PER A190 Selected Topics in Health, Physical Education and Recreation **1-4 Credits**
Examines selected topics in the health, physical education and the recreation industry according to industry demand or faculty expertise.
Special Note: Course may be repeated with change in topic.

PER A213 Intermediate Pilates **1 Credit**
Presents intermediate-level Pilates physical exercise, principles and concepts. Students will focus on Pilates exercises designed to improve core function, posture, body mechanics, spinal and joint stability, and overall healthy mobility.
Special Note: Instructor approval may be used to substitute the prerequisite course.
Prerequisites: PER A113 with a minimum grade of B.

PER A218 Avalanche Theory II **1 Credit**
Enhances the understanding of snowpack analysis, avalanche mechanics, terrain assessment, and safe travel in avalanche terrain. This course focuses on advanced decision-making, recognizing complex avalanche problems, and refining rescue skills. This course emphasizes the collection and interpretation of snowpack and weather data as well as communication, teamwork, and decision-making skills.
Special Note: Requires a good level of physical fitness. May require purchase or rental of additional equipment. Must have the ability to function comfortably in inclement weather. Requires an advanced ability to ascend and descend mountainous terrain. This course meets the American Avalanche Association Recreational Level II Avalanche Course guidelines. May be repeated for credit.
Registration Restrictions: Completion of PER A165 or a Recreation Avalanche level 1 course.
Prerequisites: PER A165 with a minimum grade of C.

PER A220 Intermediate Yoga **1 Credit**
Presents intermediate level yoga physical exercises, breathing techniques, meditation, and relaxation exercises.
Special Note: May be repeated for credit.

PER A234 Swimming Conditioning **1 Credit**
Develops and refines swimming skills, physical conditioning, and knowledge of training and competition. Designed for intermediate level swimmers.
Special Note: May be repeated for credit.

PER A243 Intermediate Hockey **1 Credit**
Develops intermediate level power skating techniques and hockey skills. Applies defensive and offensive strategies and tactics.
Special Note: May be repeated for credit.

PER A247 Intermediate Ice Climbing **2 Credits**
Introduces equipment, techniques, risk assessment, and mitigation skills associated with lead climbing waterfall ice. Covers techniques to safely and efficiently ascend and descend a multi-pitch ice climb. Covers building appropriate anchors, climbing physics, belaying, protection strategies, rope work, station management, rappelling, and improvised rescue.
Special Note: Requires excellent physical condition and the ability to perform comfortably in extremely cold and/or inclement weather. Field sessions include all-day clinics and may involve considerable travel distances from Anchorage. Students may have to purchase or rent additional equipment for this course.
Prerequisites: PER A147 with a minimum grade of D.

PER A253 Intermediate Sea Kayaking **2 Credits**
Provides foundational open water sea kayaking skills for individuals with sheltered coastal kayaking skills. Introduces open water crossings, paddling around exposed headlands, and exposure to cliffed-out shore lines with limited beach landings. Emphasizes development of efficient strokes, practical self-rescue techniques, understanding the marine environment, trip planning and risk assessment and management.
Special Note: Participants must demonstrate proficient sheltered coastal kayaking skills at course start. Requires excellent backcountry camping skills and the ability to function comfortably in inclement weather. Wilderness camping will be included in the course. Participants may be required to purchase or rent additional gear. May be repeated for credit.
Prerequisites: PER A153 with a minimum grade of D.

PER A272 Advanced Weight Training **1 Credit**
Presents key concepts related to lifetime personal fitness. Applies advanced techniques for resistance exercises to strengthen and condition major muscle groups through correct use of variable resistance equipment and free weights.
Prerequisites: PER A118 with a minimum grade of D.

Physical Therapist Assistant (PTA)

Courses

PTA A102 Physical Therapy in Health Care **3 Credits**
Introduces the profession of Physical Therapy, to include the history, scope of practice, professionalism, the American Physical Therapy Association (APTA), ethical behavior, the health care team, interpersonal communication and documentation in a medical record. Introduces health-related human behavior to include coping and adjustment behaviors in acute and chronic illness, and the role that culture and family systems play in response to illness or injury.
Registration Restrictions: Admission to the Associate of Applied Science in Physical Therapist Assistant

PTA A105 Tests and Measures **3 Credits**
Introduces common standardized tests and measures used to determine the interventions required for the plan of care developed by the supervising physical therapist.
Registration Restrictions: Departmental approval

PTA A110 Kinesiology and Biomechanics **3 Credits**
Presents human anatomy with an emphasis on the musculoskeletal system, identification of structures and their relationship to function, normal and abnormal biomechanical principles of joint patterns and gait. Explores human movement during performance of activities, especially the geometry of movement (kinematics) and the forces influencing movement (kinetics).
Registration Restrictions: Departmental approval

PTA A120 Rehabilitation I **3 Credits**
Introduces the clinical manifestations and common management strategies for diseases/disorders of the musculoskeletal, endocrine, integumentary, cardiovascular and pulmonary systems as they pertain to physical therapy interventions.
Registration Restrictions: Departmental approval

PTA A130 Physical Therapy Interventions I **4 Credits**
Introduces adaptive/assistive devices and equipment, gait training, activities of daily living (ADLs), wheelchair skills, isolation/standard precautions, aseptic technique, draping, transfers, passive range of motion (PROM), and mechanical modalities.
Registration Restrictions: Departmental approval

PTA A195 Clinical Practicum I **1 Credit**
Provides the Physical Therapist Assistant student an opportunity to observe and participate in a structured clinical setting under the supervision of a licensed physical therapist or physical therapist assistant. Provides an opportunity for the student to perform tests and interventions, and apply critical thinking skills developed in prior coursework.
Registration Restrictions: Departmental approval
Prerequisites: PTA A130 with a minimum grade of C.

PTA A210 Therapeutic Exercise **4 Credits**
Introduces exercise as a preventive and treatment mechanism for pathological conditions that influence strength, endurance and flexibility of the human body. Emphasis is placed upon design and application of exercise, developmental sequence of exercise, types of exercise, and the use of exercise equipment. Includes the body's physiological response to exercise.
Registration Restrictions: Departmental approval
Prerequisites: PTA A105 with a minimum grade of C and PTA A110 with a minimum grade of C.

PTA A220 Rehabilitation II **3 Credits**
Introduces the clinical manifestations and common management strategies for diseases/disorders of the neurological, immune, lymphatic, hepatic/biliary, hematologic, gastrointestinal and genitourinary systems as they pertain to physical therapy interventions.
Registration Restrictions: Departmental approval
Prerequisites: PTA A120 with a minimum grade of C.

PTA A230 Physical Therapy Interventions II **4 Credits**
Introduces physical therapy interventions including management of integumentary pathologies, use of physical agents, environmental safety and accessibility evaluations, prosthetics and orthotics, and select manual therapy interventions.
Registration Restrictions: Department approval
Prerequisites: PTA A130 with a minimum grade of C.

PTA A250 Neurological Interventions Across the Lifespan **3 Credits**
Introduces fundamentals of growth, development and aging, with implications for physical therapy. Focuses on neurological interventions used throughout the lifespan for individuals with abnormal development, neurological injuries and neurological disorders.
Registration Restrictions: Departmental approval

PTA A292 Physical Therapist Assistant Seminar **2 Credits**
Prepares the student for transition into the workforce. Includes discussion of the national Physical Therapist Assistant (PTA) exam, employment, Alaska practice act, professional development, employment opportunities and community service. Presents challenges and opportunities involved with providing physical therapy in the state of Alaska.
Registration Restrictions: Departmental approval
Prerequisites: PTA A195 with a minimum grade of P.

PTA A295A Clinical Practicum II **5 Credits**
Provides continued supervised physical therapy experience in a health care setting.
Registration Restrictions: Departmental approval
Prerequisites: PTA A195 with a minimum grade of P.

PTA A295B Clinical Practicum III **5 Credits**
Provides continued supervised physical therapy experience in a health care setting.
Registration Restrictions: Departmental approval
Prerequisites: PTA A295A with a minimum grade of P.

Physics (PHYS)

Courses

PHYS A101 Physics of Sports **3 Credits**
Introduces liberal arts students to the theory, methods and techniques of physics, the most basic of the sciences, using the theme of sports. Provides broad exposure to many aspects of physics, including mechanics, friction and fluid flow, and how they apply to hockey, basketball, soccer, skiing, track and field, football, and other sports.
Attributes: UAA Natural Sciences GER.

PHYS A115 Physical Science **3 Credits**
Exposes students to basic concepts in physics. Presents general knowledge of science rather than an in-depth study of any one field.
Registration Restrictions: Placement into MATH A105 or higher.

PHYS A115L Physical Science Lab **1 Credit**
Exposes students to basic concepts in physics labs. Presents general knowledge of science rather than an in-depth study of any one field.
Prerequisites: PHYS A115 with a minimum grade of D or concurrent enrollment.

PHYS A123 College Physics I **3 Credits**
Algebra-based introduction to classical physics, including: kinematics, Newton's Laws, momentum, work, energy, gravity, rotational motion, fluids, heat, temperature, and laws of thermodynamics.
Special Note: PHYS A123L is a separate laboratory course.
Prerequisites: MATH A105 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or ALEKS Overall Test 1 with a score of 055 or ALEKS Overall Test 2 with a score of 055 or ALEKS Overall Test 3 with a score of 055 or ALEKS Overall Test 4 with a score of 055 or ALEKS Overall Test 5 with a score of 055.
Attributes: UAA Natural Sciences GER.

PHYS A123L College Physics I Laboratory **1 Credit**
Introductory physics laboratory with experiments in mechanics, fluids and thermodynamics.
Prerequisites: PHYS A123 with a minimum grade of C or concurrent enrollment.
Attributes: UAA Natural Sci Lab Only GER.

PHYS A124 College Physics II **3 Credits**
Algebra-based introduction to classical physics, including: Coulomb's law, electrical potential, electric circuits, capacitance, Kirchhoff's laws, magnetic fields, Faraday's law, electromagnetic waves, physical and geometric optics, waves, and particles. Additional topics include: oscillations.
Special Note: PHYS A124L is a separate laboratory course.
Prerequisites: PHYS A123 with a minimum grade of C.
Attributes: UAA Natural Sciences GER.

PHYS A124L College Physics II Laboratory **1 Credit**
Introductory physics laboratory with experiments in electricity and magnetism, waves, and optics.
Prerequisites: (PHYS A123 with a minimum grade of C and PHYS A123L with a minimum grade of C) and PHYS A124 with a minimum grade of C or concurrent enrollment.
Attributes: UAA Natural Sci Lab Only GER.

PHYS A130 Survey of College Physics **3 Credits**
Introduction to core principles of physics in classical mechanics, waves, electricity and magnetism, and optics. Specifically designed to prepare students for entry into calculus based physics.
Prerequisites: MATH A105 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or ALEKS Overall Test 1 with a score of 055 or ALEKS Overall Test 2 with a score of 055 or ALEKS Overall Test 3 with a score of 055 or ALEKS Overall Test 4 with a score of 055 or ALEKS Overall Test 5 with a score of 055.

PHYS A211 General Physics I **3 Credits**
Introduces classical mechanics, including: kinematics, Newton's Laws, momentum, work, energy, gravity, rotational motion, oscillations and fluids.
Special Note: PHYS A211L is a separate laboratory course.
Registration Restrictions: Students who earned an AP Physics 1 exam score of 3 or higher and submitted that result to UAA meet the criteria to take this course. Please contact an advisor for an override.
Prerequisites: (PHYS A130 with a minimum grade of C or UAA PHYS A211 Placement Exam with a score of 19) and (MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C) and (MATH A252 with a minimum grade of C or concurrent enrollment or MATH A252F with a minimum grade of C or concurrent enrollment).
Attributes: UAA Natural Sciences GER.

PHYS A211L General Physics I Laboratory **1 Credit**
Calculus-based introductory physics laboratory with experiments in computerized data collection and analysis, mechanics, waves, elasticity and wave motion.
Prerequisites: PHYS A211 with a minimum grade of C or concurrent enrollment.
Attributes: UAA Natural Sci Lab Only GER.

PHYS A211R General Physics I Problem Solving **1 Credit**
Techniques of problem solving for material covered in PHYS A211. Includes student discussion and presentation of solutions in a small-group setting.
Corequisites: PHYS A211.

PHYS A212 General Physics II **3 Credits**
Calculus-based introduction to classical physics, including: Coulomb's Law, electrical potential, electric circuits, capacitance, Kirchoff's Laws, Biot-Savart Law, Faraday's Law and electromagnetic waves.
Special Note: Additional topics include waves and sound.
PHYS A212L is a separate laboratory course.
Prerequisites: (MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C) and MATH A253 with a minimum grade of C or concurrent enrollment and PHYS A211 with a minimum grade of C.
Attributes: UAA Natural Sciences GER.

PHYS A212L General Physics II Laboratory **1 Credit**
Calculus-based introductory physics laboratory with experiments in electric and magnetic fields, geometric and physical optics, and light.
Prerequisites: PHYS A211 with a minimum grade of C and PHYS A211L with a minimum grade of C and PHYS A212 with a minimum grade of C or concurrent enrollment.
Attributes: UAA Natural Sci Lab Only GER.

PHYS A214 Waves, Thermodynamics and Electricity **3 Credits**
Calculus-based study of waves and sound, thermodynamics, and electricity, including electrical circuits.
Prerequisites: (MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C) and MATH A253 with a minimum grade of C or concurrent enrollment and PHYS A211 with a minimum grade of C.

PHYS A214L Waves, Thermodynamics and Electricity Laboratory **1 Credit**
Calculus-based introductory physics laboratory with experiments in waves and sound, electric fields, circuits, and thermodynamics.
Registration Restrictions: If the equivalent of PHYS A214 is taken from another institution, it must be completed prior to taking PHYS A214L.
Prerequisites: PHYS A211 with a minimum grade of C and PHYS A211L with a minimum grade of C and PHYS A214 with a minimum grade of C or concurrent enrollment.

PHYS A303 Modern Physics **3 Credits**
Introduces modern physics, primarily special relativity and quantum mechanics. Applies these topics to the quantum structure of atoms, molecules, and solids; lasers; nuclear/particle physics and cosmology.
Prerequisites: MATH A302 with a minimum grade of C and PHYS A212 with a minimum grade of C.

PHYS A311 Intermediate Classical Mechanics **3 Credits**
Newtonian, Lagrangian, and Hamiltonian mechanics, dynamics of systems of particles and rigid bodies.
Prerequisites: MATH A302 with a minimum grade of C and PHYS A212 with a minimum grade of C.

PHYS A314 Electromagnetics **3 Credits**
Electromagnetic theory and applications. Static electric fields in free space and material media; steady current systems and associated magnetic effects. Includes electrostatics, magnetostatics, Maxwell's equations, electromagnetic wave propagation and transmission lines. Application of Maxwell's equations to engineering systems.
Crosslisted With: EE A314.
Prerequisites: PHYS A212 with a minimum grade of C and PHYS A212L with a minimum grade of C and MATH A302 with a minimum grade of C.

PHYS A320 Simulation of Physical Systems **3 Credits**
Introduces methods of computer simulation with diverse applications in physics such as numerical integration of Newton's equation, cellular automata, random walks, Monte Carlo methods, percolation and the dynamics of many body systems. No prior programming experience is required.
Prerequisites: (MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C) and (PHYS A124 with a minimum grade of C or PHYS A212 with a minimum grade of C).

PHYS A324 Electromagnetics II **3 Credits**
Use of Maxwell's equations in analysis of plane wave propagation, wave reflection, radiation and antennas, waveguides, cavity resonators, transmission lines, and radio propagation.
Crosslisted With: EE A324.
Prerequisites: EE A314 with a minimum grade of C or PHYS A314 with a minimum grade of C.

PHYS A362 Optics **4 Credits**
Interaction of light with matter: theory of geometric and nonlinear optics, Fourier optics, coherence theory, lasers, and additional topics of interest. Practical experience with relevant theories through laboratory projects including investigation of diffraction, interference and polarization. Design and construction of a telescope, a microscope and an interferometer.
Prerequisites: PHYS A212 with a minimum grade of C and PHYS A212L with a minimum grade of C.

PHYS A381 Advanced Physics Laboratory **3 Credits**
Theory and practical application of topics in upper-division physics, using advanced laboratory experiments and techniques with statistical and error analysis of data.
Prerequisites: PHYS A303 with a minimum grade of C or concurrent enrollment.

PHYS A403 Quantum Mechanics **4 Credits**
Studies fundamentals of quantum mechanics including applications to the hydrogen atom, particle spin and perturbation theory.
Special Note: Not available for credit to students who have completed PHYS A603.
May Be Stacked With: PHYS A603
Prerequisites: PHYS A303 with a minimum grade of C and MATH A314 with a minimum grade of C.

PHYS A413 Statistical and Thermal Physics **4 Credits**
Principles of applications of statistical mechanics and thermodynamics.
Special Note: Not available for credit to students who have completed PHYS A613.
May Be Stacked With: PHYS A613
Prerequisites: PHYS A212 with a minimum grade of C.

PHYS A456 Nonlinear Dynamics and Chaos **3 Credits**
Introduces nonlinear dynamics and chaos. Develops analytical methods and geometric intuition using concrete examples from physics, biology, chemistry, and engineering. Topics covered include phase plane analysis, iterated maps, fractals, and strange attractors.
Registration Restrictions: Completion of GER Tier 1 (basic college-level skills) courses and junior standing
Crosslisted With: CHEM A456 and BIOL A456
Prerequisites: MATH A253 with a minimum grade of C and (PHYS A124 with a minimum grade of C or PHYS A212 with a minimum grade of C).
Attributes: UAA Integrative Capstone GER.

PHYS A490 Selected Topics in Physics **1-4 Credits**
Detailed study of a selected topic in physics.
Special Note: May be repeated for credit for a maximum of 12 credits with a change of subtitle. Not available for credit to students who have completed PHYS A690 with the same topic.
Prerequisites: PHYS A303 with a minimum grade of C.

PHYS A498 Individual Research **1-6 Credits**
Research projects to be arranged with individual faculty members who will direct the research program.
Special Note: May be repeated for a maximum of 6 credits.
Registration Restrictions: Department permission.

PHYS A603 Advanced Quantum Mechanics **4 Credits**
Studies fundamentals of quantum mechanics and advanced applications to the hydrogen atom, particle spin and perturbation theory. Includes review of current literature and/or independent research on the topic.
Special Note: Not available for credit to students who have completed PHYS A403.
Registration Restrictions: Graduate standing and faculty advisor approval
May Be Stacked With: PHYS A403

PHYS A613 Advanced Statistical and Thermal Physics **4 Credits**
Principles and advanced applications of statistical mechanics and thermodynamics. Include review of current literature and/or independent research on the topic.
Special Note: Not available for credit to students who have completed PHYS A413.
Registration Restrictions: Graduate standing and approval of faculty advisor
May Be Stacked With: PHYS A413

PHYS A699 Thesis **1-6 Credits**
Involves planning, preparation and completion of a graduate level thesis.
Special Note: May be repeated for a maximum of 12 credits.
Registration Restrictions: Graduate standing and instructor approval

Political Science (PS)

Courses

PS A101 Introduction to American Government **3 Credits**
An introduction to the historical and constitutional foundations of American government; the political activities of parties, groups, and the media; public decision-making by the executive, Congress, and the courts; and current economic, environmental, social, and foreign issues and policies.
Attributes: UAA Social Sciences GER.

PS A102 Introduction to Political Science **3 Credits**
Explores basic principles and processes of major branches of the discipline of political science, including comparative politics, international relations, political philosophy, and American government.
Attributes: UAA Social Sciences GER.

PS A301 States and Markets **3 Credits**
Explores how political power shapes economic outcomes and how economic forces influence political action. Includes an introduction to the prominent theories of comparative political economy (CPE), describes CPE institutions, and presents and analyzes global trade and development theories and other contemporary challenges to CPE.
Prerequisites: PS A102 with a minimum grade of C.

PS A311 Comparative Politics **3 Credits**
Introduces the development of governmental structures and political processes in the modern world. Discusses theories related to problems and governing strategies in contemporary political systems.
Prerequisites: WRTG A111 with a minimum grade of C and (PS A101 with a minimum grade of C or PS A102 with a minimum grade of C).
Attributes: UAA Social Sciences GER.

PS A312 Arctic and Northern Politics **3 Credits**
Analyzes the political systems, actors, and institutions across the Arctic region. Contrasts such entities and evaluates the complex range of issues relevant to the region, with particular attention to contemporary challenges of political economy, Indigenous rights, and climate change.
Prerequisites: PS A101 with a minimum grade of D or PS A102 with a minimum grade of D.

PS A313 Tribes, Nations and Peoples **3 Credits**
Analyzes and evaluates the history of expansion, invasion, contemporary questions, and issues that confront indigenous tribes, nations and peoples, including their political, social, economic, and cultural activities. Investigates corresponding relations with non-indigenous governments and private entities as well as international developments concerning indigenous human rights.
Crosslisted With: AKNS A313
Prerequisites: AKNS A201 with a minimum grade of C or PS A102 with a minimum grade of C.
Attributes: UAA Alaska Native-Themed GER.

PS A321 International Relations **3 Credits**
Introduces international relations providing general knowledge and analytical tools necessary to understand, evaluate and respond to an increasingly complex array of international problems and international affairs. Includes theoretical approaches to international relations and how theory influences expectations.
Prerequisites: PS A102 with a minimum grade of C.

PS A322 United States Foreign Policy **3 Credits**
Examines the heritage of United States foreign policy, the processes involved in the formation and implementation of policy, and the environment in which these factors occur.
Prerequisites: PS A101 with a minimum grade of C or PS A102 with a minimum grade of C.

PS A323 International Law **3 Credits**
Investigates the history, theory, and practice of international law. Includes an introduction to major issues in international law, including trade, war, human rights, and genocide.
Prerequisites: PS A101 with a minimum grade of D or PS A102 with a minimum grade of D.

PS A324 Model United Nations **3 Credits**
Provides student simulation of the United Nations. Acting as nation-state delegates, NGOs or World Bank Representatives, students research and debate a topic of international concern.
Special Note: May be repeated once for credit.

PS A325 Northeast Asia in 21st Century **3 Credits**
An interdisciplinary examination and analysis of Northeast Asia covering China, the Koreas, and Japan designed to provide students with the means to understand how the societies of this region have developed separate and distinct identities despite their common cultural and philosophic roots.
Registration Restrictions: Completion of GER Tier 1 (basic college-level skills) courses.
Crosslisted With: HIST A325 and INTL A325
Attributes: UAA Integrative Capstone GER, UAA Intercultural Fluency GER.

PS A330 American Political Thought **3 Credits**
Examines the political theory of liberal democracy in its application to crucial events in American political history.
Prerequisites: HIST A101 with a minimum grade of D or PS A101 with a minimum grade of D or PS A102 with a minimum grade of D.

PS A331 Political Philosophy **3 Credits**
An introduction to political philosophy, with emphasis on the study of regimes; selected regimes are examined through the writings of political philosophers.
Prerequisites: WRTG A111 with a minimum grade of D.
Attributes: UAA Humanities GER.

PS A332 History of Political Philosophy I: Classical **3 Credits**
Political philosophy from Plato to Marsilius, with emphasis on natural right.
Prerequisites: WRTG A111 with a minimum grade of D.
Attributes: UAA Humanities GER.

PS A333 History of Political Philosophy II: Modern **3 Credits**
Political philosophy from Machiavelli to Nietzsche, with emphasis on liberalism and its critics.
Prerequisites: WRTG A111 with a minimum grade of D.
Attributes: UAA Humanities GER.

PS A341 The United States Congress **3 Credits**
Examines the organization of the U.S. Congress and its role in the American political system. Topics include theories of representative government, the internal dynamics of Congress, and forces that influence its ability to act within the constitutional system.
Prerequisites: PS A101 with a minimum grade of D.

PS A342 The American Presidency **3 Credits**
Examines executive branch of the U.S. government. Course focuses on the constitutional design and evolution of the office, theories of presidential power, relations with Congress, and contemporary presidential policymaking.
Prerequisites: PS A101 with a minimum grade of D.

PS A343 Constitutional Law **3 Credits**
Introduces students to American constitutional law through a study of the history of the Constitution and selected landmark Supreme Court cases. Topics covered are separation of powers, judicial review, civil rights and liberties, property and economic rights, and others.
Crosslisted With: LEGL A343.
Prerequisites: JUST A110 with a minimum grade of C or LEGL A101 with a minimum grade of C or PS A101 with a minimum grade of C.

PS A345 Alaska Government and Politics **3 Credits**
Examines all forms of governmental structures and political processes in Alaska. Examines the history of government in Alaska, contemporary political issues and political change.
Special Note: May be applied to the Alaska Culture and History requirements for state of Alaska teacher recertification.
Prerequisites: AKNS A201 with a minimum grade of C or AKNS A346 with a minimum grade of C or PS A101 with a minimum grade of C or PS A346 with a minimum grade of C.
Attributes: UAA Alaska Native-Themed GER.

PS A346 Alaska Native Politics **3 Credits**
Introduction to historical relationships among federal, territorial, state and local laws and policies as they affect Alaska Natives and Native/non-Native relations. Includes contemporary issues and comparative case studies.
Special Note: May be used to fulfill the Alaska studies requirement for teacher certification.
Registration Restrictions: Junior or senior standing
Crosslisted With: AKNS A346
Attributes: UAA Alaska Native-Themed GER.

PS A351 Political Sociology **3 Credits**
Introduces social aspects of politics and the nature and distribution of power in society. Examines the dynamic relationship of the political process and the institutions of society.
Crosslisted With: SOC A351.
Prerequisites: (WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C) and (PS A102 with a minimum grade of C or SOC A101 with a minimum grade of C).

PS A352 Voting, Public Opinion, and Democracy **3 Credits**
Explores the relation between public opinion, political behavior, and political activity. Explores the beliefs, attitudes, values, and opinions of different social groups and the sources, dynamics, and effects of these views.
Prerequisites: PS A101 with a minimum grade of D or PS A102 with a minimum grade of D.

PS A353 American Political Development **3 Credits**
Examines development of national political institutions in the United States.
Prerequisites: PS A101 with a minimum grade of C or PS A102 with a minimum grade of C.

PS A355 Women and Gender in Politics **3 Credits**
Examines the roles of women and gender in the political world from local, state, national and international perspectives. Studies the nature of political roles of women and additional gender identities from both historical and contemporary perspectives.
Crosslisted With: WSGS A355
Prerequisites: PS A101 with a minimum grade of C or PS A102 with a minimum grade of C or WSGS A200 with a minimum grade of C.

PS A492 Senior Seminar in Politics **3 Credits**
Senior integrative capstone course required of all political science majors. An examination of a single major problem in the study of politics.
Registration Restrictions: Completion of GER Tier 1 (basic college-level skills) courses. Junior or Senior standing and at least one upper-division course from another social science.
Attributes: UAA Integrative Capstone GER.

PS A495 Internship in Political Science **3 Credits**
Students apply the subject matter of political science in an agency or community setting.
Special Note: Internships vary; may be repeated once for credit with a different internship.
Registration Restrictions: Junior or senior standing and instructor approval
Prerequisites: PS A101 with a minimum grade of C or PS A102 with a minimum grade of C.

Preparatory English (PRPE)

Courses

PRPE A072 Individualized Reading Lab **1-3 Credits**
Provides individualized instruction in basic reading skills, text comprehension, vocabulary development, dictionary skills, and readjustment of reading rate, in an open lab format.
Special Note: May be repeated for a maximum of 3 credits.
Registration Restrictions: Appropriate score on reading placement test.

Process Technology (PRT)

Courses

PRT A101 Introduction to Process Technology **3 Credits**
Introduces industrial process operations through an overview of general information, processes, procedures and equipment.

PRT A110 Introduction to Process Safety, Health and Environmental Awareness **3 Credits**
Introduces safety, health and environmental awareness within the process industry. Examines types of hazards, applicable government regulations, and current industry standards and practices. Analyzes the potential for harm to an individual and to the environment due to unsafe conditions. Covers various types of preventative procedures, systems and equipment.

PRT A130 Process Technology I: Equipment **3 Credits**
Provides an in-depth analysis of process equipment, components, applications and theory. Examines process flows, piping diagrams, and piping and instrumentation diagram (P&ID) symbols. Examines process equipment design characteristics. Provides an overview of basic industrial hand tools and their safe and effective use.
Prerequisites: (MATH A105 with a minimum grade of C or concurrent enrollment or MATH A121 with a minimum grade of C or concurrent enrollment or MATH A151 with a minimum grade of C or concurrent enrollment or MATH A152 with a minimum grade of C or concurrent enrollment or MATH A155 with a minimum grade of C or concurrent enrollment or MATH A211 with a minimum grade of C or concurrent enrollment or MATH A212 with a minimum grade of C or concurrent enrollment or MATH A221 with a minimum grade of C or concurrent enrollment or MATH A251 with a minimum grade of C or concurrent enrollment or MATH A251F with a minimum grade of C or concurrent enrollment or MATH A252 with a minimum grade of C or concurrent enrollment or MATH A252F with a minimum grade of C or concurrent enrollment or MATH A253 with a minimum grade of C or concurrent enrollment) and PRT A101 with a minimum grade of C.
Corequisites: PRT A130L.

PRT A130L Process Technology I: Equipment Lab **1 Credit**
The course will introduce students to the basics of process equipment, tools, and their safe use. This course illustrates, augments, and applies concepts covered in the lecture course.
Corequisites: PRT A130.

PRT A140 Industrial Process Instrumentation I **3 Credits**
Introduces the terminology and symbolism encountered in process instrumentation. Explores common process variable measurement tools.
Prerequisites: (MATH A105 with a minimum grade of C or concurrent enrollment or MATH A121 with a minimum grade of C or concurrent enrollment or MATH A151 with a minimum grade of C or concurrent enrollment or MATH A152 with a minimum grade of C or concurrent enrollment or MATH A155 with a minimum grade of C or concurrent enrollment or MATH A211 with a minimum grade of C or concurrent enrollment or MATH A212 with a minimum grade of C or concurrent enrollment or MATH A221 with a minimum grade of C or concurrent enrollment or MATH A251 with a minimum grade of C or concurrent enrollment or MATH A251F with a minimum grade of C or concurrent enrollment or MATH A252 with a minimum grade of C or concurrent enrollment or MATH A252F with a minimum grade of C or concurrent enrollment or MATH A253 with a minimum grade of C or concurrent enrollment).

PRT A144 Industrial Process Instrumentation II **3 Credits**
Examines continuous control strategies and final control elements, discrete-type alarm, annunciator, and shutdown systems utilized for process control. Reviews computerized control systems. Analyzes instrument calibration and troubleshooting procedures. Utilizes a variety of instrument projects to increase practical knowledge through troubleshooting, repair, instrument calibration and functional check-out (FCO) procedures.
Prerequisites: PRT A140 with a minimum grade of C.

PRT A160 Oil and Gas Exploration and Production I **3 Credits**
Examines the history of oil and gas, exploration, reservoir geology, and aspects of petroleum mineral leasing. Covers drilling and completion techniques, production systems, methods of petroleum delivery, and emulsion hazards and treatment. Surveys alternative petroleum sources and the theory of peak oil, and reviews current petroleum marketing strategies.

PRT A230 Process Technology II: Systems **4 Credits**
Provides an overview of major industrial process systems, both simple and complex, and covers a wide range of systems that a technician will be expected to operate.
Prerequisites: PRT A130 with a minimum grade of C and PRT A140 with a minimum grade of C.

PRT A231 Process Technology III: Operations **3 Credits**
Examines the different operational phases found in industrial processes, with all relevant safety, health, and environmental rules. Focuses on the unit (outside) operator position.
Prerequisites: PRT A144 with a minimum grade of C and PRT A230 with a minimum grade of C and PRT A250 with a minimum grade of C or concurrent enrollment.
Corequisites: PRT A231L.

PRT A231L Process Technology III: Operations Lab **1 Credit**
Introduces the process of developing and writing Standard Operating Procedures (SOPs). Applies practices and procedures for the startup of Big Silver's DeltaV control system in accordance with the SOPs for each piece of equipment. Introduces proper procedures for Lockout/Tagout (LOTO) and verifying zero energy.
Corequisites: PRT A231.

PRT A250 Process Troubleshooting **3 Credits**
Introduces the concept of troubleshooting and analyzes how instrumentation such as indicators, variables and controllers can be used for effective troubleshooting. Develops troubleshooting skills that can be used effectively throughout the process industry.
Prerequisites: PRT A144 with a minimum grade of C or concurrent enrollment and PRT A230 with a minimum grade of C.

PRT A255 Quality Concepts for the Process Industry **1 Credit**
Examines quality concepts, tools, and methods used in the process industry. Covers the effectiveness of their implementation and continued use. Investigates root cause analysis problem-solving techniques.
Prerequisites: PRT A230 with a minimum grade of C or concurrent enrollment.

PRT A260 Oil and Gas Exploration and Production II **3 Credits**
Analyzes operator duties and responsibilities in oil and gas production facilities; oil and gas well production; well pad operations; drill site operations; and oil and gas transportation methods. Covers both on-shore and off-shore producing areas.
Prerequisites: (MATH A105 with a minimum grade of C or concurrent enrollment or MATH A121 with a minimum grade of C or concurrent enrollment or MATH A151 with a minimum grade of C or concurrent enrollment or MATH A152 with a minimum grade of C or concurrent enrollment or MATH A155 with a minimum grade of C or concurrent enrollment or MATH A211 with a minimum grade of C or concurrent enrollment or MATH A212 with a minimum grade of C or concurrent enrollment or MATH A221 with a minimum grade of C or concurrent enrollment or MATH A251 with a minimum grade of C or concurrent enrollment or MATH A251F with a minimum grade of C or concurrent enrollment or MATH A252 with a minimum grade of C or concurrent enrollment or MATH A252F with a minimum grade of C or concurrent enrollment or MATH A253 with a minimum grade of C or concurrent enrollment) and PRT A160 with a minimum grade of C.

Project Management (PM)

Courses

PM A151 Introduction to Project Management **3 Credits**
Provides an introduction to the project management field of study and profession. Introduces students to key project performance domains, including stakeholders, teams, development approaches and life cycles, planning, project execution, delivery, measurement, and managing uncertainty. Provides opportunities for students to collaborate and develop communication and leadership skills.
Prerequisites: WRTG A111 with a minimum grade of C or concurrent enrollment or WRTG A1W with a minimum grade of C.

PM A251 Principles of Project Management **3 Credits**
Explains essential project management principles, including stewardship, team dynamics, stakeholder engagement, value creation, systems thinking, leadership, tailored approaches, quality management, complexity handling, risk management, adaptability and resilience, and managing change in various contexts such as the Arctic. Establishes a basis for examining projects within the value delivery system for creating value. Describes the organizational governance, functions associated with projects, and the project environment. Introduces different models, methods, and artifacts used in project management.
Prerequisites: PM A151 with a minimum grade of C.

PM A401 Project Management Fundamentals **3 Credits**
Develops fundamentals of project management to initiate, plan, execute, monitor, control and close projects in different organizational and industry contexts. Alignment with strategic and operational objectives and stakeholder requirements. Hands-on application of tools and methodologies. Interactive and collaborative learning environment emphasizes communication, leadership, teamwork and professionalism.
Special Note: Not available for credit to students who have completed PM A601.
Registration Restrictions: Junior or senior standing or department approval
May Be Stacked With: PM A601

PM A402 Application of Project Management Processes **3 Credits**
Applies project management processes from project inception through closeout. Integrates these processes through hands-on, end-to-end project case studies. Covers topics in project leadership, project requirements definition, stakeholder management, change control, schedule management, risk management, professional responsibility, effective communication, and teamwork.
Special Note: Not available for credit to students who have completed PM A602.
Registration Restrictions: Junior or senior standing
May Be Stacked With: PM A602
Prerequisites: PM A251 with a minimum grade of C.

PM A412 Advanced Project Time Management **3 Credits**
Introduce, adapt and apply advanced project scheduling and time management processes to effectively achieve on-time project completion. Processes include defining project activity sequencing, estimating activity effort and duration, project schedule development and control. Utilizes project management applications for scheduling, scope definition and activity sequencing will be utilized in these processes.
Special Note: Not available for credit to students who have completed PM A612.
Registration Restrictions: Junior or senior standing
May Be Stacked With: PM A612
Prerequisites: PM A401 with a minimum grade of C and PM A402 with a minimum grade of C.

PM A423 Stakeholder Engagement and Collaboration **3 Credits**
Covers theory, case studies and hands-on application of tools to ensure effective identification, engagement, collaboration and alignment with and among stakeholders from project inception through planning, execution, closure and successful operational integration.
Special Note: Not available for credit to students who have completed PM A623.
Registration Restrictions: Junior or senior standing
May Be Stacked With: PM A623
Prerequisites: PM A401 with a minimum grade of C.

PM A424 Advanced Project Risk Management **3 Credits**
Examines methods and processes of planning for, identifying, assessing, prioritizing, monitoring and responding to project threats and opportunities. Qualitative and quantitative risk analysis processes, including risk modeling and simulation, risk ranking, and risk mitigation and response techniques.
Special Note: Not available for credit to students who have completed PM A624.
Registration Restrictions: Junior or senior standing
May Be Stacked With: PM A624
Prerequisites: PM A401 with a minimum grade of C and PM A402 with a minimum grade of C and (STAT A200 with a minimum grade of C or STAT A253 with a minimum grade of C or STAT A2Q with a minimum grade of C).

PM A432 Advanced Project Controls **3 Credits**
Covers advanced principles of project control and analysis, including the development and integration of work breakdown structure, risk analysis, resource performance, task and project metrics, and cost, with schedule and risk management tracing.
Special Note: Not available for credit to students who have completed PM A632.
Registration Restrictions: Junior or senior standing
May Be Stacked With: PM A632
Prerequisites: PM A401 with a minimum grade of C and PM A402 with a minimum grade of C.

PM A440 Organizational Project Maturity and Improvement **3 Credits**
Explores the application of the project management maturity model to the assessment and improvement of organizational project management performance.
Special Note: This course is not available to students who have completed PM A640.
May Be Stacked With: PM A640
Prerequisites: PM A251 with a minimum grade of C.

PM A441 Lean Six Sigma Green Belt **3 Credits**
Fundamentals of Lean Six Sigma (LSS) necessary to prepare individuals to implement principles and practices of LSS using fact-based and data-driven methodologies to improve the customer experience, reduce waste, and add unique value. Develop and apply leadership to produce tangible results in support aligned with strategic and operational objectives of organizations. Hands-on application of LSS and project management processes, tools and techniques to case studies and real projects will prime individuals to lead and facilitate process improvement projects. Interactive and collaborative learning environment emphasizes communication, cross-functional teamwork and professionalism.
Special Note: Not available for credit to students who have completed PM A641.
Registration Restrictions: Junior or senior standing or department approval
May Be Stacked With: PM A641

PM A450 Advanced Information Technology Project Management **3 Credits**
Addresses the unique challenges that IT project managers face. Focuses on the characteristics of a changing IT environment, software methodologies (with an emphasis on Agile) and their interdependence.
Registration Restrictions: Junior or senior standing

PM A486 Project Management Capstone **3 Credits**
Provides students with the opportunity to integrate knowledge, skills, concepts, tools, methods, and perspectives acquired across the curriculum to initiate a project, develop a tailored plan, execute the project work, achieve the project objectives, deliver the deliverables, and measure the project performance. Assists students in strengthening and demonstrating proficiency in project management by managing a research, community, or industry project.
Registration Restrictions: Senior standing
Prerequisites: PM A251 with a minimum grade of C and PM A402 with a minimum grade of C.
Attributes: UAA Integrative Capstone GER.

PM A601 Project Management Fundamentals **3 Credits**
Fundamentals of project management to initiate, plan, execute, monitor, control and close projects in different organizational and industry contexts. Alignment with strategic and operational objectives and stakeholder requirements. Hands-on application of tools and methodologies. Interactive and collaborative learning environment emphasizes communication, leadership, teamwork and professionalism.
Special Note: Not available for credit to students who have completed PM A401.
Registration Restrictions: Graduate standing or department approval
May Be Stacked With: PM A401

PM A602 Application of Project Management Processes **3 Credits**
Applies project management processes from project inception through closeout. Integration of project management processes through use of hands-on, end-to-end project case studies. Covers project leadership, project requirements definition, stakeholder management, change control, schedule management, risk management, professional responsibility, effective communication and teamwork.
Special Note: Not available for credit to students who have completed PM A402.
Registration Restrictions: Graduate standing or department approval.
May Be Stacked With: PM A402
Prerequisites: PM A401 with a minimum grade of B or concurrent enrollment or PM A601 with a minimum grade of B or concurrent enrollment.

PM A603 Project Initiation and Planning **3 Credits**
Explore in depth Project Management (PM) Knowledge Areas, tools and techniques, and the necessary considerations when initiating and planning complex projects. Introduce tools, methods and critical issues associated with the initiation and planning of a project management plan. Students will function in teams and will be challenged with preparing and planning projects with real-world relevance.
Registration Restrictions: Graduate standing or department approval
Prerequisites: (PM A401 with a minimum grade of B and PM A402 with a minimum grade of B) or (PM A601 with a minimum grade of B and PM A602 with a minimum grade of B).

PM A604 Project Executing, Monitoring and Control **3 Credits**
Explore in depth Project Management (PM) Knowledge Areas, tools and techniques, and the necessary considerations when in the executing, monitoring and controlling phases of basic and complex projects. Introduce tools, methods and critical issues associated with the execution, monitoring and controlling of a project management plan. Students will function as teams and will be challenged with monitoring and controlling projects with real world relevance.
Registration Restrictions: Graduate standing or department approval
Prerequisites: (PM A401 with a minimum grade of B and PM A402 with a minimum grade of B) or (PM A601 with a minimum grade of B and PM A602 with a minimum grade of B).

PM A605 Operational Integration and Project Closure **3 Credits**
Explore in depth Project Management (PM) Knowledge Areas, tools and techniques, and the necessary considerations for operational integration and closure processes of complex projects. Introduce tools, methods and critical issues associated with the operation integration and closure processes of completing a project management plan. Students will function in teams and will be challenged with re-prioritizations and re-assignments projects across various industries with real-world relevance.
Registration Restrictions: Graduate standing or department approval
Prerequisites: PM A603 with a minimum grade of B and PM A604 with a minimum grade of B.

PM A612 Advanced Project Time Management **3 Credits**
Introduce, adapt and apply advanced project scheduling and time management processes to effectively achieve on-time project completion. Processes include defining project activity sequencing, estimating activity effort and duration, project schedule development and control. Utilizes project management applications for scheduling, scope definition and activity sequencing.
Special Note: Not available for credit to students who have completed PM A412.
Registration Restrictions: Graduate standing or department approval
May Be Stacked With: PM A412
Prerequisites: PM A401 with a minimum grade of B or PM A601 with a minimum grade of B.

PM A623 Stakeholder Engagement and Collaboration **3 Credits**
Theory, case studies and hands-on application of tools to ensure effective identification, engagement, collaboration and alignment with and among stakeholders from project inception through planning, execution, closure and successful operational integration.
Special Note: Not available for credit to students who have completed PM A423.
Registration Restrictions: Graduate standing or department approval
May Be Stacked With: PM A423
Prerequisites: PM A401 with a minimum grade of B or PM A601 with a minimum grade of B.

PM A624 Advanced Project Risk Management **3 Credits**
Examines methods and processes of planning for, identifying, assessing, prioritizing, monitoring and responding to project threats and opportunities. Qualitative and quantitative risk analysis processes, including risk modeling and simulation, risk ranking, and risk mitigation and response techniques.
Special Note: Not available for credit to students who have completed PM A424.
Registration Restrictions: Graduate standing or department approval
May Be Stacked With: PM A424
Prerequisites: (PM A401 with a minimum grade of B or PM A601 with a minimum grade of B) and (STAT A252 with a minimum grade of B or STAT A253 with a minimum grade of B).

PM A632 Advanced Project Controls **3 Credits**
Advanced principles of project control and analysis including the development and integration of work breakdown structure, risk analysis, resource performance, task and project metrics, and cost, with schedule and risk management tracing.
Special Note: Student should have successfully completed a statistics course that covers descriptive and inferential statistics before enrollment. Not available for credit to students who have completed PM A432.
Registration Restrictions: Graduate standing or department approval
May Be Stacked With: PM A432
Prerequisites: PM A601 with a minimum grade of B and PM A602 with a minimum grade of B and (STAT A252 with a minimum grade of B or STAT A253 with a minimum grade of B).

PM A640 Organizational Project Maturity and Improvement **3 Credits**
Explores the application of the project management maturity model to the assessment and improvement of organizational project management performance.
Special Note: Not available for credit to students who have completed PM A440.
Registration Restrictions: Graduate standing or department approval
May Be Stacked With: PM A440
Prerequisites: PM A401 with a minimum grade of B or PM A601 with a minimum grade of B.

PM A641 Lean Six Sigma Green Belt **3 Credits**
Fundamentals of Lean Six Sigma (LSS) necessary to prepare individuals to implement principles and practices of LSS using fact-based and data-driven methodologies to improve the customer experience, reduce waste and add unique value. Develop and apply leadership to produce tangible results in support aligned with strategic and operational objectives of organizations. Hands-on application of LSS and project management processes, tools and techniques to case studies and real projects will prime individuals to lead and facilitate process improvement projects. Interactive and collaborative learning environment emphasizes communication, cross-functional teamwork and professionalism.
Special Note: Not available for credit to students who have completed PM A441.
Registration Restrictions: Graduate standing or department approval
May Be Stacked With: PM A441

PM A686A Capstone Project: Initiating and Planning **3 Credits**
Initiating, planning and researching a sponsored, student-selected and faculty-approved capstone project undertaken to research and/or contribute new concepts, tools and capabilities to address relevant project management challenges. Demonstrates mastery of project management principles, processes, tools/techniques and cumulative knowledge gained from prior coursework as specifically applied to project initiating and planning processes.
Registration Restrictions: Graduate standing or department approval
Prerequisites: PM A603 with a minimum grade of B and PM A604 with a minimum grade of B.

PM A686B Capstone Project: Executing, Controlling and Closing **3 Credits**
Executing, controlling and closing component of a sponsored, student-selected and faculty-approved capstone project undertaken to research and/or contribute new concepts, tools and capabilities to address relevant project management challenges.
Registration Restrictions: Graduate standing or department approval
Prerequisites: PM A686A with a minimum grade of B.

PM A695 Project Management Internship **1-6 Credits**
Provides students with opportunities to practice project management skills in a professional environment. Professional work experience designed to provide students with the opportunity to investigate practical applications of project management tools and techniques within an organization. Assignments and projects arranged with cooperating organizations and agencies.
Registration Restrictions: Graduate standing or department approval
Prerequisites: PM A401 with a minimum grade of B or PM A601 with a minimum grade of B.

Psychology (PSY)

Courses

PSY A111 Introduction to Psychology **3 Credits**
Introduces the fundamentals of human behavior and mental processes and how they are impacted by social, cultural and biological factors. Covers topics such as social science research methods, personality, sensation, perception, psychological disorders, lifespan development, memory, learning, thinking, language and intelligence.
Attributes: UAA Social Sciences GER.

PSY A115 Memory: How It Works and How to Improve It **3 Credits**
An overview of current theories and research about human memory with an emphasis on practical techniques for memory improvement.

PSY A143 Death and Dying **3 Credits**
Examines the event of death and the process of dying in contemporary society. Psychological aspects of loss, grieving, and acceptance of one's own mortality are presented along with an exploration of helping services available in the local community. Social issues involving death are discussed.

PSY A150 Lifespan Development **3 Credits**
Reviews physical, cognitive, and socio-emotional human growth, maturation, and development across the lifespan, as well as contemporary lifespan development theories. Special attention is given to the effects of sociocultural influences on development.
Attributes: UAA Social Sciences GER.

PSY A153 Human Relations **3 Credits**
Surveys human relations skills. Builds skills in communication, problem solving, interaction, creating and maintaining healthy relationships, and choice.

PSY A200 Introduction to Behavior Analysis **3 Credits**
An introduction to the principles of behavior analysis used to understand and change behavior. Course covers how behavioral scientists observe, measure and change behavior to help people live healthy, productive lives.
Attributes: UAA Social Sciences GER.

PSY A260 Statistics for Psychology **3 Credits**
Presents basic descriptive and inferential statistical techniques used in psychology. Covers scales of measurement, central tendency, variability, normal distributions, standard scores, correlation, regression, hypothesis testing, parametric and nonparametric tests for independent and dependent groups, and one- and two-way analysis of variance.
Special Note: Concurrent enrollment in PSY A260L is strongly recommended.
Prerequisites: (MATH A105 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or STAT A200 with a minimum grade of C) and PSY A111 with a minimum grade of C.

PSY A260L Statistics for Psychology Lab **1 Credit**
Builds on the material covered in PSY A260, giving hands-on experience with data-analysis software. Includes the use of software for graphing, descriptive statistics, correlation, simple regression, t-tests, analysis of variance, and chi-square.
Special Note: Either prior completion of PSY A260 or concurrent enrollment in PSY A260 is required. Students must earn a minimum grade of C in PSY A260L before being admitted to PSY A261, PSY A468 and/or psychology capstone courses.
Registration Restrictions: Either prior completion or concurrent enrollment in PSY A260.
Prerequisites: (MATH A105 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or STAT A200 with a minimum grade of C) and PSY A111 with a minimum grade of C.

PSY A261 Research Methods in Psychology **3 Credits**
Introduces students to the scientific approach to studying behavior and mental processes. Covers experimental and non-experimental methods, ethical principles and practices, data collection and analysis, and APA style writing.
Special Note: Concurrent enrollment in PSY A261L is strongly recommended.
Prerequisites: WRTG A111 with a minimum grade of C and PSY A111 with a minimum grade of C and PSY A260 with a minimum grade of C and PSY A260L with a minimum grade of C.

PSY A261L Research Methods in Psychology Laboratory **1 Credit**
Provides experience in designing research projects and data collection as well as analysis, interpretation and reporting of results simulating the research activities of psychologists.
Prerequisites: WRTG A111 with a minimum grade of C and PSY A111 with a minimum grade of C and PSY A260 with a minimum grade of C and PSY A260L with a minimum grade of C and PSY A261 with a minimum grade of C or concurrent enrollment.
Corequisites: PSY A261.

PSY A313 Psychology of Sex and Gender **3 Credits**
Examines empirical findings on biological, psychological, cultural and social aspects of sex, gender and sexuality; research methods in gender research; historical perspectives; gender differences and similarities; gender identity development; sex assignment and gender identity; gender roles and stereotypes; sexism and gender discrimination; and intersectionality.
Prerequisites: PSY A111 with a minimum grade of C or (PSY A150 with a minimum grade of C and WRTG A111 with a minimum grade of C).

PSY A316 Motivation and Emotion **3 Credits**
Examines the basic theories and phenomena associated with motivational states and emotional experiences. Motives are described and related to various forms of behavior. Characteristics of emotional states are identified.
Prerequisites: PSY A111 with a minimum grade of D.

PSY A329 Positive Psychology **3 Credits**
Survey of the subfield of psychology which focuses on optimizing human potential and psychological functioning -- with an emphasis on research findings. Topics covered include the character strengths and virtues of wisdom and knowledge, courage, humanity, justice, temperance, and transcendence.
Prerequisites: (PSY A111 with a minimum grade of C or PSY A150 with a minimum grade of C) and WRTG A111 with a minimum grade of C.

PSY A345 Psychopathology **3 Credits**
Explores current conceptions of psychopathology through research and clinical applications and discusses various psychological disorders and symptoms. Covers historical conceptions, prevention, assessment, and treatment of major psychological disorders.
Prerequisites: PSY A111 with a minimum grade of D.

PSY A348 Infant and Early Childhood Mental Health **3 Credits**
Focuses on issues relevant to infant and toddler mental health: typical versus atypical development, risk factors for the development of psychological disorders, psychological disorders typically diagnosed, and resilience and intervention.
Prerequisites: WRTG A111 with a minimum grade of C and (EDEC A107 with a minimum grade of C or PSY A111 with a minimum grade of C or PSY A150 with a minimum grade of C).

PSY A365 Child and Adolescent Development **3 Credits**
Focuses on physical, cognitive, emotional and social development in childhood and adolescence. Surveys theoretical views of child and adolescent development and the effects of genes, maturation, environment and socialization with an emphasis on research findings.
Prerequisites: (WRTG A111 with a minimum grade of C or WRTG A1W with a minimum grade of C) and (PSY A111 with a minimum grade of D or PSY A150 with a minimum grade of D).

PSY A366 Sensation and Perception **3 Credits**
Examines characteristics of sensory stimuli, anatomy and mechanisms of sensory organs, and the interpretation of sensory information. Topics include sensory thresholds, Gestalt principles, perceptual development and expertise, affordances, and perceptual illusions.
Prerequisites: PSY A111 with a minimum grade of C and WRTG A111 with a minimum grade of C.

PSY A367 Cognitive Psychology **3 Credits**
Introduces the scientific study of cognition. Topics include object recognition, attention, memory, language, concepts, judgment and decision making, reasoning, and problem solving.
Prerequisites: WRTG A111 with a minimum grade of C and PSY A111 with a minimum grade of C.

PSY A368 Personality **3 Credits**
Provides an overview of classic theories of personality, while emphasizing modern and contemporary theories of personality. Examines conceptual issues in the assessment of personality. Reviews research on the biological, cognitive and sociocultural bases of how and why people differ in how they think, feel and behave.
Prerequisites: (PSY A111 with a minimum grade of C or PSY A150 with a minimum grade of C) and WRTG A111 with a minimum grade of C.

PSY A370 Behavioral Neuroscience **3 Credits**
Examines how behavior and cognition are mediated by biological processes. Covers neural activity, the organization of the nervous system, psychopharmacology, and biological bases of normal and abnormal behaviors.
Special Note: Although this course is one option for a university- wide integrative capstone, it does not meet the psychology major capstone requirement.
Registration Restrictions: Junior or senior standing.
Prerequisites: WRTG A111 with a minimum grade of C and (PSY A111 with a minimum grade of C or PSY A150 with a minimum grade of C) and (BIOL A102 with a minimum grade of C or BIOL A108 with a minimum grade of C or (BIOL A111 with a minimum grade of C and BIOL A111L with a minimum grade of C)) and (WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C).
Attributes: UAA Integrative Capstone GER.

PSY A372 Community Psychology **3 Credits**
Introduces students to the field of Community Psychology (CP). Reviews the historical context of CP and the values and guiding principles of the field. Focuses on the impact of social and environmental factors on behavior, emphasizing interaction theories and research and their application to communication, dynamics of power, confrontation and conflict, and creative problem solving. Introduces tools for community-based research and action, applied to a series of projects.
Prerequisites: PSY A111 with a minimum grade of C and (PSY A313 with a minimum grade of C or PSY A316 with a minimum grade of C or PSY A329 with a minimum grade of C or PSY A345 with a minimum grade of C or PSY A348 with a minimum grade of C or PSY A365 with a minimum grade of C or PSY A366 with a minimum grade of C or PSY A367 with a minimum grade of C or PSY A368 with a minimum grade of C or PSY A370 with a minimum grade of C or PSY A375 with a minimum grade of C or PSY A380 with a minimum grade of C or PSY A468 with a minimum grade of C).

PSY A375 Social Psychology **3 Credits**
Studies the role of cognition, personality, culture, and biology/genetics on social behavior. Applies theory and research to understand the behavior of individuals in social situations (e.g. subjective beliefs about self and others, stereotypes, prejudice; attraction, helping, and aggression; influence, conformity, and obedience; and attitudes and behaviors).
Prerequisites: WRTG A111 with a minimum grade of C and (MATH A105 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or STAT A200 with a minimum grade of C) and (PSY A111 with a minimum grade of C or PSY A150 with a minimum grade of C).

PSY A380 Psychology of Stress and Coping **3 Credits**
Examines empirical findings on stress and stress outcomes and the strategies for and effectiveness of stress management. Topics include the history of the field, theories, physiology of stress, variables that mediate and moderate stress, interrelations of psychological and physical health, personality, and emotion with stress, the role of stress in relationships, at school, and at work, and techniques for coping with stress.
Prerequisites: PSY A111 with a minimum grade of D or PSY A150 with a minimum grade of D.

PSY A398 Individual Research **3 Credits**
Under the supervision of a faculty member either (a) initial participation on a team where the student helps carry out a research project by a faculty member in psychology, or (b) initial attempt by the student to design and carry out an empirical research project in psychology.
Special Note: May be repeated for a maximum of 9 credits.
Registration Restrictions: Faculty permission.
Prerequisites: PSY A260 with a minimum grade of C and PSY A260L with a minimum grade of C and PSY A261 with a minimum grade of C and PSY A261L with a minimum grade of C.

PSY A400 Strategies of Behavior Change **3 Credits**
An exploration of the principles, strategies and clinical applications of behavior analysis. Topics will include methods to improve desirable behavior and decrease problem behavior, methods to evaluate behavior change and program effectiveness, and development of comprehensive behavioral programs.
Special Note: Not available for credit to students who have completed PSY A600.
May Be Stacked With: PSY A600
Prerequisites: PSY A200 with a minimum grade of C or PSY A468 with a minimum grade of C.

PSY A410 Single Subject Research Designs **3 Credits**
Explores single-subject research methods used to identify, describe, understand and intervene in socially significant problems. Discusses research methods and concepts within scientific and clinical frameworks. Emphasizes tactics of descriptive and experimental methods with direct or indirect observation, graphical and statistical analysis, ethical responsibilities of researchers, and a range of within-subjects research designs.
Special Note: Not available for credit to students who have completed PSY A610.
May Be Stacked With: PSY A610
Prerequisites: PSY A200 with a minimum grade of C or PSY A400 with a minimum grade of C or PSY A468 with a minimum grade of C.

PSY A411B Ethics for Behavior Analysts **3 Credits**
Presents a comprehensive overview of the principles of ethical and professional conduct within the field of behavior analysis, including the specific ethical guidelines that apply to Board Certified Assistant Behavior Analysts (BCaBAs®).
Special Note: Not available for credit to students who have completed PSY A611B.
May Be Stacked With: PSY A611B
Prerequisites: PSY A400 with a minimum grade of C or PSY A468 with a minimum grade of C.

PSY A412 History of Psychology **3 Credits**
Explores the history of psychology. Illuminates major historical paradigms -- past and present -- since the early 19th century through the 20th century. Addresses major themes in psychology today.
Special Note: Course meets the departmental capstone requirement for the psychology major.
Prerequisites: PSY A111 with a minimum grade of C and PSY A150 with a minimum grade of C and PSY A260 with a minimum grade of C and PSY A260L with a minimum grade of C and PSY A261 with a minimum grade of C and (WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C).

PSY A413 Behavioral Assessment **3 Credits**
Provides an overview of behavioral assessment techniques. Includes data collection, inter-observer agreement, indirect assessment techniques, and psychometric assessment procedures. Emphasizes (1) behavioral measurement; (2) displaying and interpreting behavioral data; (3) descriptive assessment; (4) functional analysis; and (5) preference assessment.
Special Note: Not available for credit to students who have completed PSY A613.
May Be Stacked With: PSY A613
Prerequisites: PSY A200 with a minimum grade of C or PSY A400 with a minimum grade of C or PSY A468 with a minimum grade of C.

PSY A425 Clinical Psychology **3 Credits**
Surveys historical developments and contemporary applications of clinical psychology. Focuses on major psychotherapy approaches, including basic assumptions, techniques, and related research findings.
Prerequisites: PSY A345 with a minimum grade of D.

PSY A428 Evolutionary Psychology **3 Credits**
Senior-level survey of theory and research pertaining to an evolutionary model of human nature, and how such a model can integrate many of psychology's different branches. Compares traits between and within different species, addressing how natural and sexual selection might have partially shaped human nature and patterns of human cognition, emotion, behavior, and social interactions.
Special Note: Meets the departmental capstone requirement for the psychology major.
Registration Restrictions: Two of the following courses: PSY A313, PSY A316, PSY A345, PSY A366, PSY A370, PSY A375
Prerequisites: (WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C) and PSY A111 with a minimum grade of C and PSY A150 with a minimum grade of C and PSY A260 with a minimum grade of C and PSY A260L with a minimum grade of C and PSY A261 with a minimum grade of C.

PSY A442 Psychopathology of Childhood and Adolescence **3 Credits**
Focuses on the psychological disorders of childhood and adolescence, including the classification of disorders and their diagnosis, etiology, and intervention/treatment. The importance of evidence-based treatment is emphasized.
Prerequisites: (EDEC A107 with a minimum grade of C or PSY A150 with a minimum grade of C or PSY A365 with a minimum grade of C) and PSY A345 with a minimum grade of C and (WRTG A111 with a minimum grade of C or WRTG A1W with a minimum grade of C).

PSY A447 Behavioral Supports for Neurodivergence **3 Credits**
Explores supports for individuals who experience neurodivergence, such as autism, treatment options, and the role of family and community supports. Special attention will be given to primary source literature related to community-based behavioral treatment, early intensive behavioral intervention (EIBI) and to those disciplines intersecting with the practice of applied behavior analysis (ABA).
Special Note: Not available for credit to students who have completed PSY A647.
May Be Stacked With: PSY A647
Prerequisites: PSY A200 with a minimum grade of C or PSY A468 with a minimum grade of C.

PSY A450 Adult Development and Aging **3 Credits**
Reviews psychological, biological, and social development along with economic and historical circumstances of aging in the span of life between early and late adulthood. A special focus is placed on aging within today's world and the use of applied developmental psychology in promoting positive aging.
Prerequisites: PSY A111 with a minimum grade of D or PSY A150 with a minimum grade of D.

PSY A455 Interventions for Challenging Behavior **3 Credits**
Explores behavioral strategies used to treat challenging behaviors associated with depression, anxiety, eating disorders, schizophrenia and other mental health issues. Presents an overview of factors related to etiology and emphasizes the role of family and community supports in the treatment process.
Special Note: Not available for credit to students who have completed PSY A655.
May Be Stacked With: PSY A655
Prerequisites: PSY A200 with a minimum grade of C or PSY A468 with a minimum grade of C.

PSY A465 Cross-Cultural Psychology **3 Credits**
Explores ethnic-cultural values, attitudes and beliefs as they relate to interpersonal relationships and human behavior. Examines how behavioral styles, manifestations of psychopathology and effective psychotherapy methods are affected by ethnic-cultural factors.
Registration Restrictions: Three other psychology courses; PSY A425 recommended.
May Be Stacked With: PSY A654
Prerequisites: PSY A111 with a minimum grade of D.
Attributes: UAA Alaska Native-Themed GER.

PSY A467 Organizational Behavior Management **3 Credits**
An exploration of behavior analytic strategies used to manage and improve employee performance in the workplace. Topics will include effective staff training and support strategies, performance management, organizational system analysis, and behavior-based safety, implementation science and effective consultation strategies.
Special Note: Not available for credits to students who have completed PSY A667.
May Be Stacked With: PSY A667
Prerequisites: PSY A200 with a minimum grade of C or PSY A468 with a minimum grade of C.

PSY A468 Learning and Behavior **3 Credits**
Examines major learning principles to explain adaptive and maladaptive human behavior. Topics include habituation, sensitization, Pavlovian conditioning, operant conditioning and social learning.
Special Note: Not available for credit to students who have completed PSY A668.
Registration Restrictions: Admission to Bachelor of Arts in Psychology or Bachelor of Science in Psychology
May Be Stacked With: PSY A668
Prerequisites: PSY A260 with a minimum grade of C and PSY A260L with a minimum grade of C and PSY A261 with a minimum grade of C and PSY A261L with a minimum grade of C.
Corequisites: PSY A468L.

PSY A468L Learning and Behavior Laboratory **1 Credit**
Provides experience designing and conducting experiments demonstrating major learning principles.
Special Note: Not available for credit to students who have completed PSY A668L.
Registration Restrictions: Admission to the Bachelor of Arts in Psychology or Bachelor of Science in Psychology
May Be Stacked With: PSY A668L
Prerequisites: PSY A260 with a minimum grade of C and PSY A260L with a minimum grade of C and PSY A261 with a minimum grade of C and PSY A261L with a minimum grade of C.
Corequisites: PSY A468.

PSY A473 Psychological Testing **3 Credits**
Provides an understanding of psychological measurement and test development. Topics include the history of testing, ethical testing practices, standardization, sources of bias, reliability, and validity. Common psychological tests are introduced.
Prerequisites: PSY A111 with a minimum grade of C and (PSY A260 with a minimum grade of C or STAT A200 with a minimum grade of C).

PSY A478 Applications of Behavior Analysis **3 Credits**
Explores topics in behavior analysis, emphasizing the role of the behavior analyst as a scientist-practitioner. Includes the philosophical history of behaviorism, modern behavioral research and application of behavior analysis to socially relevant problems.
Special Note: Not available for credit to students who have completed PSY A678.
May Be Stacked With: PSY A678
Prerequisites: PSY A200 with a minimum grade of C or PSY A468 with a minimum grade of C.

PSY A485 Health Psychology **3 Credits**
Examines psychological, physical, and environmental factors that influence mental and physical health. Includes epidemiology, stress theories, psychophysiology, psychoneuroimmunology, chronic pain, tobacco/alcohol use, diet, exercise, terminal illness, and healthy/unhealthy behaviors/lifestyles. Presents the biopsychosocial orientation from both disease and prevention strategies.
Prerequisites: PSY A111 with a minimum grade of C.

PSY A486 Forensic Psychology **3 Credits**
Introduces psychology's scientific contribution to civil and criminal legal issues. Includes the history and philosophy of forensic psychology, major legal decisions guiding the practice of forensic psychology, and specific applications of forensic psychology, including: expert testimony, family violence and child abuse, child custody decision-making, discrimination and sexual harassment, and criminal profiling.
Prerequisites: PSY A111 with a minimum grade of C or SOC A101 with a minimum grade of C.

PSY A490 Advanced Topics in Psychology **1-3 Credits**
Covers an advanced special topic in psychology of interest to those with previous coursework in psychology. Specific topics as announced.
Special Note: May be repeated for a maximum of 6 credits with a change of subtitle.
Registration Restrictions: Junior or senior standing and admission to the Bachelor of Arts in Psychology or the Bachelor of Science in Psychology
May Be Stacked With: PSY A690

PSY A492 Senior Seminar: Contemporary Topics in Psychology **3 Credits**
In depth, discussion-oriented seminar for senior students who are pursuing a major or minor in psychology. Uses original-source materials and journal articles about a contemporary issue in psychology.

Special Note: May be repeated for a maximum of 6 credits with a change of subtitle.
Registration Restrictions: Junior or senior standing and admission to the Bachelor of Arts in Psychology or the Bachelor of Science in Psychology
May Be Stacked With: PSY A690

PSY A495A Psychology Practicum **3 Credits**
Arranged placement in a supervised setting that provides psychological, behavioral or social services. Focus on development of professional skills, communication skills, implementation and evaluation of client assessments and interventions, and basic ethics for helping professionals. Students are expected to complete 90 hours of supervised experience.
Special Note: Meets the departmental capstone requirement for the psychology major.
Registration Restrictions: Instructor approval
Prerequisites: (PSY A150 with a minimum grade of C and PSY A261 with a minimum grade of C) or (PSY A400 with a minimum grade of C or PSY A447 with a minimum grade of C or PSY A455 with a minimum grade of C or PSY A467 with a minimum grade of C or PSY A478 with a minimum grade of C).

PSY A495B Applied Clinical Skills Practicum **3 Credits**
Provides arranged supervised experiential learning that provides behavior analytic, psychological, or social services. Focus on development of skills for the mental or behavioral health professional including professionalism, communication, and basic ethics for helping professionals. Students are expected to complete 90 hours of supervised experience in a community setting under the supervision of a licensed behavior analyst or other relevant licensed provider.
Special Note: Meets the department's capstone requirement for the psychology major.
Registration Restrictions: Instructor approval
May Be Stacked With: PSY A695B
Prerequisites: ((PSY A150 with a minimum grade of C or PSY A200 with a minimum grade of C) and PSY A261 with a minimum grade of C) or (PSY A400 with a minimum grade of C or PSY A447 with a minimum grade of C or PSY A455 with a minimum grade of C or PSY A467 with a minimum grade of C or PSY A478 with a minimum grade of C).

PSY A498 Individual Research **3 Credits**
Under the supervision of a faculty member either a) advanced participation on a team where the student helps carry out a research project by a faculty member in Psychology, or b) advanced attempt by the student to design and carry out an empirical research project in psychology.
Special Note: May be repeated for a maximum of 9 credits.
Registration Restrictions: Instructor approval
Prerequisites: PSY A260 with a minimum grade of C and PSY A260L with a minimum grade of C and PSY A261 with a minimum grade of C and PSY A261L with a minimum grade of C.

PSY A499 Senior Thesis **3 Credits**
Independent research under faculty supervision. Culminates in a document prepared to APA publication standards. Presentation at a research conference is encouraged.
Special Note: May be repeated for a maximum of 6 credits.
Registration Restrictions: Instructor approval
Prerequisites: (WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C or WRTG A2W with a minimum grade of C) and PSY A111 with a minimum grade of C and PSY A150 with a minimum grade of C and PSY A260 with a minimum grade of C and PSY A260L with a minimum grade of C and PSY A261 with a minimum grade of C.

PSY A600 Strategies of Behavior Change **3 Credits**
An advanced exploration of the principles, strategies and clinical applications of behavior analysis. Topics will include in-depth analysis of the methods used to improve desirable behavior and decrease problem behavior, methods to evaluate behavior change and program effectiveness, evaluation of primary literature, and development of comprehensive behavioral programs.
Registration Restrictions: Graduate standing and admission to the Master of Science in Clinical Psychology
May Be Stacked With: PSY A400

PSY A602 Native Ways of Knowing **3 Credits**
Appropriate and valid ways of describing and explaining human behavior by using the social context, culture, and history of indigenous groups. Includes indigenous approaches to values, health, the interconnection of family and community, the nature of spirituality and indigenous healing, and the importance of elders and spiritual healers.
Registration Restrictions: Graduate standing in Psychology.

PSY A604 Biological and Pharmacological Bases of Behavior **3 Credits**
Covers biological underpinnings of behavior and the basic principles of pharmacology. Deals with physiological causes and contributors to psychopathology and with the medical sequellae of psychiatric disorders. Includes issues such as differential diagnosis, referral for medical or psychiatric evaluation, and the functional and structural characteristics of relevant physiological systems.
Registration Restrictions: Graduate standing in Psychology
Prerequisites: PSY A622 with a minimum grade of B.

PSY A605 History and Systems **1 Credit**
Provides a brief philosophically-oriented overview of the history of psychology. Compares Western psychology in the 19th and 20th centuries and selected indigenous psychologies of Asia and North America. Special attention is given to systems of thought that have emerged since the founding of psychology as an empirical science.
Registration Restrictions: Graduate standing in Psychology.

PSY A606 Native Ways of Healing **3 Credits**
Explores healing from a variety of Native perspectives, particularly from Alaska Native perspectives. Emphasizes the preparation and education of healers, their roles and work, and integration within the community. Students will have the opportunity to examine the possible integration of clinical and community psychology with indigenous approaches to healing.
Registration Restrictions: Graduate standing in Psychology.

PSY A607 Cognition, Affect, and Culture **3 Credits**
Provides an overview, analysis, and integration of the areas of cognitive science, human emotion, and social psychological concepts such as self, decision-making, and attitudes. Students will be introduced to a spectrum of concepts around social cognition, such as person perception, memory, and group dynamics.
Registration Restrictions: Graduate standing and admission to the PhD in Clinical-Community Psychology and any psychology undergraduate course in learning, cognition, or emotion.

PSY A608 Contemporary Issues and Practices in School Psychology **3 Credits**
Introduces the field of school psychology through a contemporary global lens with a focus on the unique needs of each student and the school psychologist as a positive change agent. Provides an introduction to how school psychologists work collaboratively with families, teachers, and other educators to support access to effective instruction in relation to each student's learning needs. Examines current practices, professional issues and controversies in the field.
Special Note: Requires a 15-hour field placement.
Registration Restrictions: Admission to the Master of Science in School Psychology-Specialist and graduate standing

PSY A609 Research Methods in School Psychology **3 Credits**
Introduces students to a variety of research designs in school psychology, including experimental and quasi-experimental designs, single-subject designs, participatory designs, and program evaluation. Reviews issues of statistical, construct, internal, and external validity. Develops skills needed to evaluate and apply the findings from published research in school psychology practice with focus placed on understanding the application of research methods in education settings and issues of validity.
Registration Restrictions: Graduate standing and admission to the College of Arts and Sciences

PSY A610 Single Subject Research Designs **3 Credits**
Surveys within-subjects research methods used to identify, describe, understand and intervene on socially significant problems. Discusses research methods and concepts within scientific and clinical frameworks. Emphasizes advanced tactics of descriptive and experimental methods with direct or indirect observation, graphical and statistical analysis, ethical responsibilities of researchers, and a range of single-subject research designs.
Registration Restrictions: Graduate standing
May Be Stacked With: PSY A410
Prerequisites: PSY A600 with a minimum grade of B.

PSY A611 Ethics and Professional Practice **3 Credits**
Comprehensive overview of the ethical principles and legal statutes involved in the practice of counseling and psychotherapy. Designed to serve as a forum for the discussion of ethical issues and other concerns relevant to professionals in the fields of counseling and psychotherapy. Topics covered will play an important role in the preparation and development of ethical and competent professionals.
Registration Restrictions: Graduate standing in Psychology.

PSY A611B Ethics for Behavior Analysts **3 Credits**
Presents a comprehensive overview of the principles of ethical and professional conduct within the field of behavior analysis, including the specific ethical guidelines that apply to Board Certified Behavior Analysts (BCBAs).
Registration Restrictions: Graduate standing and admission to the Master of Science in Clinical Psychology
May Be Stacked With: PSY A411B

PSY A611Y Assessment in Preschool Special Education **3 Credits**
Provides a practical, applied approach for analyzing and synthesizing assessment information for eligibility, program planning and progress monitoring with children 3-5 years old. Emphasizes concepts related to authentic and play-based assessment, curriculum-based assessments, multi-tiered systems of support and applications for cultural and linguistically diverse populations.
Special Note: This course includes a 15 hour field experience and may require a background check.
Registration Restrictions: Graduate standing and admission to the School of Education or to the College of Arts and Sciences
Crosslisted With: EDSE A611Y
Prerequisites: EDEC A107 with a minimum grade of C or PSY A150 with a minimum grade of C or PSY A365 with a minimum grade of C.

PSY A612 Human Development in a Cultural Context **3 Credits**
Study of developmental theory, research and substantive applied issues across the lifespan. Particular emphasis is placed on understanding how culture and sociocultural context impact the interplay of biology and environment in the development of essential qualities and characteristics of individuals.
Registration Restrictions: Graduate standing and admission to the Master of Science in Clinical Psychology or PhD in Clinical-Community Psychology

PSY A613 Behavioral Assessment **3 Credits**
Provides an in-depth view of behavioral assessment techniques. Specific topics to be covered include data collection, inter-observer agreement, indirect assessment techniques, and psychometric assessment procedures. Emphasis will be placed on: (1) behavioral measurement; (2) displaying and interpreting behavioral data; (3) descriptive assessment; (4) functional analysis; and (5) preference assessment. In addition, the course covers basic behavioral principles, single-subject experimental methodology and ethical issues as they relate to behavioral assessment.
Registration Restrictions: Graduate standing
May Be Stacked With: PSY A413
Prerequisites: PSY A600 with a minimum grade of B.

PSY A615 School Psychology in a Global Society: Law, Ethics, and Professionalism **3 Credits**
Introduces legal and ethical practices in the field of school psychology with a focus on professional standards and using ethical decision-making practices. Discusses special education law, and the professionalism of school psychologists using the National Association of School Psychologists (NASP) Professional Standards and NASP Principles for Professional Ethics.
Registration Restrictions: Admission to the Master of Science in School Psychology-Specialist and graduate standing

PSY A616 Program Evaluation and Community Consultation I **3 Credits**
The first in a two-course series, providing an overview of theories, methods, and applications of program evaluation and community consultation as tools for facilitating systemic and programmatic changes in community and clinical settings. Seminar covers techniques of entry into various settings and designing program evaluations in collaboration with various community organizations.
Registration Restrictions: Graduate standing and admission to the Ph.D. Program in Clinical-Community Psychology
Prerequisites: PSY A639.

PSY A617 Program Evaluation and Community Consultation II **3 Credits**
The second in a two-course series, introducing the principles and dynamics involved in various types of consultative relationships in community and clinical settings, with a focus on cross-cultural and ethical issues. Covers methods of program evaluation implementation and use of program evaluation findings for consulting with relevant stakeholders.
Registration Restrictions: Graduate standing and admission to the Ph.D. Program in Clinical-Community Psychology
Prerequisites: PSY A616.

PSY A618 School Psychology Assessment I: Assessment with Children and Adolescents **3 Credits**
Introduces assessment practices in the evaluation, selection, administration, scoring, and interpretation of measures of academic, cognitive, and social-emotional functioning aligned with individual student needs. Examines methods for using assessment practices that take into account an understanding of individual, contextual, and systemic factors that influence learning and wellness. Covers theories and purposes of assessment, legal and ethical considerations, family partnerships during the assessment process, and application of the problem-solving approach for data-based decision making.
Special Note: Requires attendance for an on-campus weekend of instruction.
Registration Restrictions: Graduate standing
Prerequisites: PSY A615 with a minimum grade of B.

PSY A619 School Psychology Assessment II: Cognitive and Academic Assessment **4 Credits**
Teaches students advanced skills for the selection, administration, scoring, and interpretation of culturally appropriate measures of academic and cognitive skills. Embedded within a contextualized problem-solving model, students conduct supervised assessments using broad academic achievement tests, and cognitive measures to address learning challenges among school-age children and adolescents. Focuses on the use of assessment data, along with other sources of information, to write comprehensive evaluation reports that are linked to students' learning needs.
Special Note: Requires administration of assessments in the psychoeducational clinic.
Registration Restrictions: Admission to the Master of Science in School Psychology-Specialist and graduate standing
Prerequisites: PSY A618 with a minimum grade of B.

PSY A620 Advanced Infant/Early Childhood Mental Health **3 Credits**
Examines current research and practice for the promotion, prevention, and intervention of infant and early childhood mental health, emphasizing a relationship-focused approach in the context of families and communities. Topics include typical and atypical social-emotional development; risk, resiliency, and protective factors in the context of families and culture; and home and community-based intervention models. Introduces early screening, assessment, and legal and ethical parameters across disciplines.
Registration Restrictions: Graduate standing or instructor approval
Crosslisted With: SWK A620

PSY A621 School Crisis Prevention, Intervention, and Response **3 Credits**
Introduces school crisis prevention, intervention, and response and the role of the school psychologist in an educational setting with relation to the multitiered system of support (MTSS) framework. Uses the PREPaRE framework to develop an in-depth understanding of the prevention, protection, mitigation, response, and recovery in crisis situations. Adapts and applies crisis prevention, intervention, and response capacity to inform recovery and support within school psychology practice.
Special Note: Requires in-person attendance for the completion of PREPaRE Workshop 1 (8 hrs) & PREPaRE Workshop 2 (12 hrs).
Registration Restrictions: Graduate standing

PSY A622 Multicultural Psychopathology **3 Credits**
Examines contemporary views on child and adult psychopathology from a multicultural perspective. Reviews the fundamentals of clinical interviewing and diagnosis. Includes training in the Diagnostic and Statistical Manual of Mental Disorders (DSM) system. Examines the role of cultural, contextual, and individual difference factors in symptom formation and the experience of psychological disorders.
Registration Restrictions: Graduate standing and admission to the Master of Science in Clinical Psychology or Doctor of Philosophy in Clinical-Community Psychology, or instructor approval

PSY A623 Intervention I **3 Credits**
Increases knowledge and skills related to traditional and nontraditional therapeutic interventions. Students are provided with a range of theoretical perspectives, a conceptual understanding of, and an opportunity to practice a wide range of culturally relevant and appropriate techniques that are applicable in traditional and nontraditional community mental health settings.
Registration Restrictions: Graduate standing in Psychology.

PSY A623Y Strategies and Interventions: Preschool Special Education **3 Credits**
Provides a critical study and application of best practices in evidence-based intervention strategies for preschool-aged children with disabilities, developmental delays or those at-risk for delays. Focuses on inclusive practices, tiered instructional approaches, and the application of routines-based and activity-based intervention in preschool settings.
Special Note: This course requires 15 hours of field experience and may require a background check.
Registration Restrictions: Graduate standing and admission to the School of Education or the College of Arts and Sciences
Crosslisted With: EDSE A623Y
Prerequisites: EDEC A107 with a minimum grade of C or PSY A150 with a minimum grade of C or PSY A365 with a minimum grade of C.

PSY A624 Group Therapy **3 Credits**
Teaches major theories of group dynamics and processes for a variety of populations; reviews ethics and cultural sensitivity in Group Therapy; includes outpatient, inpatient, Telepsychology, psychoeducational and use of manuals for specialized group treatment. Trains students for interpretation and analysis of interactional and interpersonal patterns in groups.
Registration Restrictions: Graduate standing and admission to the Master of Science in Clinical Psychology or Doctor of Philosophy in Clinical-Community Psychology
Prerequisites: PSY A623 with a minimum grade of B or concurrent enrollment.

PSY A626 Family Therapy **3 Credits**
Introduces Family Therapy including systems theory of family dynamics and behavioral change concepts; history and development of Family Therapy approaches; APA and AAMFT ethics codes; and a critical survey of prevailing interventions. Experiential role-playing exercises provide practice. Sensitivity to culture and diversity in family therapy is emphasized.
Registration Restrictions: Graduate standing and admission to the Master of Science in Clinical Psychology or Doctor of Philosophy in Clinical-Community Psychology
Prerequisites: PSY A623 with a minimum grade of B or concurrent enrollment.

PSY A627 Community-Based Intervention Skills **3 Credits**
Covers current theories and practical application of community-based interventions such as integrated health systems. Includes use of Brief Therapy, Solution-Focused Therapy, Cognitive Behavior Therapy, crisis intervention, case management and interprofessional collaboration. Examines contemporary issues affecting the delivery of mental health services in community-based settings, with a focus on basic skills for the community mental health practitioner.
Registration Restrictions: Graduate standing
Prerequisites: PSY A623 with a minimum grade of B.

PSY A629 Intervention II **3 Credits**
Deepens understanding of the variety and application of intervention techniques in diverse settings. Directs students to explore the efficacy of specific interventions in a range of settings and with a variety of populations. Shapes critical thinking and basic intervention evaluation skills.
Registration Restrictions: Graduate standing in Psychology.
Prerequisites: PSY A623.

PSY A631 Cognitive Behavior Therapy **3 Credits**
Examines at graduate level behavioral strategies of major clinical relevance (e.g., treatment of anxiety, depression). Procedures (including behavioral assessment) are examined in detail and related to evidence for efficacy, with emphasis on adult populations.
Registration Restrictions: Graduate standing in Psychology.
Prerequisites: PSY A623 with a minimum grade of B or concurrent enrollment.

PSY A632 Community Psychology Across Cultures **3 Credits**
Provides an overview of theory, research, and practice of community psychology with particular emphasis on multicultural themes, the design and evaluation of interventions in remote and rural community settings, prevention and health promotion, social advocacy, and social change. Focuses on the interactions between individuals, communities, and environments, and how such interactions influence the well-being and change of individuals and communities. Explores effective ground-up strategies and the ethics of interventions across multicultural settings. Emphasizes issues relevant to marginalized social groups, especially Alaska Native and other Indigenous communities.
Registration Restrictions: Graduate standing and admission to the PhD in Clinical-Community Psychology

PSY A633 Tests and Measurement in Multicultural Context **3 Credits**
Surveys principles of construction, analysis, and evaluation of psychological tests in a multicultural context. Emphasizes culturally sensitive application of psychological tests and measurements. Focuses on the history, theory, and methods of psychological testing by examining the areas of intelligence, personality, and vocation. Discusses widely-used intelligence and personality tests and procedures.
Registration Restrictions: Graduate standing and admission to the PhD in Clinical-Community Psychology

PSY A634 Applied Psychological Assessment **3 Credits**
Builds on previous learning in principles of construction/analysis/evaluation of psychological tests. Emphasizes applied knowledge and understanding of tests commonly used in agencies where students may seek employment. Reviews assessments in the areas of intelligence, cognitive function, and personality within a multicultural context. Students also learn to use various online resources to accompany diagnosis formulation. Experiential learning includes role-played administration and interpretation of various assessments and self-report tools and development of comprehensive report writing and report interpretation skills.
Registration Restrictions: Admission to the Master of Science in Clinical Psychology or instructor approval

PSY A638 Child Clinical Psychology **3 Credits**
Reviews childhood behavior and developmental disorders and provides an introduction to ethical issues, assessment approaches and intervention strategies to address these disorders. Emphasis is placed on incorporating contextual factors (development, family, culture) and empirically-validated interventions into the treatment of children.
Registration Restrictions: Graduate standing

PSY A639 Research Methods **3 Credits**
Presents methods used for research in community, clinical, and cross-cultural settings. Introduces research epistemologies and ethics relevant to research with rural and indigenous people. Includes a variety of designs and data gathering methods for improving understanding of behavior in social settings. Quantitative, qualitative, and mixed-method approaches will be presented.
Registration Restrictions: Graduate standing and admission to the Master of Science in Clinical Psychology or PhD in Clinical-Community Psychology

PSY A640 Substance Abuse: Etiology, Treatment and Assessment **3 Credits**
Overview of substance abuse, including substances of abuse; prevalence; etiology and consequences (biological, psychological and social); assessment of substance abuse; treatment planning; treatment; and prevention. Gives attention to diversity, including issues important for indigenous and rural populations.
Registration Restrictions: Admission to the Ph.D. program in Clinical-Community Psychology

PSY A647 Advanced Behavioral Supports for Neurodivergence **3 Credits**
Explores at an advanced level supports for individuals who experience neurodivergence, such as autism, treatment options, and the role of family and community supports. Special attention will be given to primary source literature related to community-based behavioral treatment, early intensive behavioral intervention (EIBI) and to those disciplines intersecting with the practice of applied behavior analysis (ABA).
Registration Restrictions: Graduate standing and admission to the Master of Science in Clinical Psychology
May Be Stacked With: PSY A447
Prerequisites: PSY A613 with a minimum grade of B.

PSY A648 Motivational Interviewing **3 Credits**
Motivational Interviewing (MI) is an empirically-supported, person-centered, goal-oriented approach for facilitating change by exploring & resolving ambivalence. With background lectures on the theoretical and empirical bases of MI, class sessions emphasize demonstration and practice of MI skills and strategies for diverse behavioral applications (e.g., addictions, health promotion, chronic disease management).
Registration Restrictions: Graduate standing
Crosslisted With: HS A648 and SWK A648

PSY A652 Practicum Placement - Clinical I **1-3 Credits**
Provides a supervised clinical practicum experience in psychological interviewing, diagnosis, and psychotherapy. Applied techniques focusing on delivery of clinical services in traditional or non-traditional clinical settings. Cultural, contextual, and individual difference factors are considered in each of these areas.
Special Note: May be repeated for maximum of 9 credits.
Registration Restrictions: Graduate standing and admission to the PhD in Clinical-Community Psychology
Prerequisites: PSY A611 with a minimum grade of B and PSY A622 with a minimum grade of B and PSY A623 with a minimum grade of B and PSY A629 with a minimum grade of B.

PSY A653 Practicum Placement - Clinical II **1-3 Credits**
Provides an advanced clinical practicum experience designed to provide increased depth in applying theory to clinical practice and improving skills as a psychologist in training in a community service setting.
Special Note: May be repeated for maximum of 9 credits.
Registration Restrictions: Graduate standing and admission to the PhD in Clinical-Community Psychology
May Be Stacked With: PSY A670
Prerequisites: PSY A652 with a minimum grade of B.

PSY A654 Cultural Issues in Psychotherapy **3 Credits**
Places focus on understanding the role that ethnic and cultural issues can play in psychotherapy relationships. Opportunities are provided to gain the awareness, knowledge and skills necessary to become more effective in cross-cultural psychotherapy situations.
Special Note: PSY A654 cannot be applied toward the MS degree in Clinical Psychology if PSY A465 was previously taken for credit. Offered spring semesters.
Registration Restrictions: Graduate standing in Psychology
May Be Stacked With: PSY A465
Prerequisites: PSY A623.

PSY A655 Interventions for Challenging Behavior **3 Credits**
Explores behavioral strategies used to treat challenging behaviors associated with depression, anxiety, eating disorders, schizophrenia and other mental health issues. Presents an overview of literature related to etiology and emphasizes the role of family and community supports in the treatment process.
Registration Restrictions: Graduate standing
May Be Stacked With: PSY A455
Prerequisites: PSY A600 with a minimum grade of B.

PSY A657 Quantitative Analysis **3 Credits**
Examines the underlying principles of statistics, including the logic of statistical inference, probability, power, effect size, and Type 1 and 2 errors. Uses statistics for designs including the description of groups, correlation, predictive models, inferential statistics, analysis of mixed-method designs, and common nonparametric techniques.
Registration Restrictions: Graduate standing and admission to the Ph.D. Program in Clinical-Community Psychology
Prerequisites: PSY A639.

PSY A658 Qualitative Analysis **3 Credits**
Provides an in-depth study of the theory of qualitative inquiry, qualitative methodologies, and techniques of qualitative research. Emphasis on using qualitative research methods in community-engaged research across diverse populations and settings. Uses of qualitative research methods in community and clinical psychology.
Registration Restrictions: Graduate standing and admission to the PhD in Clinical-Community Psychology
Prerequisites: PSY A639 with a minimum grade of B.

PSY A659 Multivariate Methods in Psychology **3 Credits**
Provides a conceptual discussion of and statistical software training in advanced statistical analysis, including multivariate regression, canonical correlation, discriminant analysis, multivariate analysis of variance, principal component analysis, factor analysis, logistic regression, and cluster analysis.
Registration Restrictions: Graduate standing and admission to the Ph.D. Program in Clinical-Community Psychology
Prerequisites: PSY A639 and PSY A657.

PSY A661 Consultation and Collaboration with Schools, Families, and Communities **3 Credits**
Covers legal mandates, ethical principles, and expected professional competencies for consultation within schools, homes, and communities. Introduces foundational consultation theories, practices, and processes delivered within a multitiered system of supports (MTSS). Reviews the consultant knowledge and skills required for collaborative work within school settings. Emphasizes how models and stages of consultation are critical for establishing and sustaining effective school, family, and community partnerships that promote success for children and youth receiving general and special education.
Special Note: Requires 15-hour field placement.
Registration Restrictions: Graduate standing
Prerequisites: PSY A619 with a minimum grade of B.

PSY A662 School-Based Mental Health and Counseling **3 Credits**
Provides a critical study and application of evidence-based and trauma-informed strategies and interventions to promote social and emotional functioning and health in school settings. Focuses on the design, implementation, and evaluation of individualized services that promote resilience and positive behavior, support adaptive skills, and enhance mental and behavioral health. Includes opportunity to develop skills and deliver individual and group social-emotional psychoeducational and counseling interventions.
Special Note: Requires a 15-hour field placement.
Registration Restrictions: Graduate standing

PSY A663 Academic Supports and Interventions **3 Credits**
Prepares school psychologists to collaborate with families, teachers, and others to design, implement, and evaluate evidence-based academic interventions that take into account the biological, cultural, and social influences on academic skills. Focuses on the design, implementation, and evaluation of culturally relevant instructional accommodations, modifications, and interventions within a multitiered system of supports (MTSS) to promote successful academic outcomes.
Special Note: Requires a 15-hour field placement.
Registration Restrictions: Graduate standing
Prerequisites: PSY A610 with a minimum grade of B.

PSY A667 Organizational Behavior Management **3 Credits**
Explores advanced behavior analytic strategies used to manage and improve employee performance in the workplace. Includes in-depth analysis of primary source literature of effective staff training and support strategies, performance management, systems-level analysis, behavior-based safety, implementation science, and effective consultation strategies.
Registration Restrictions: Graduate standing
May Be Stacked With: PSY A467
Prerequisites: PSY A610 with a minimum grade of B.

PSY A668 Learning and Behavior **3 Credits**
In-depth coverage of major learning principles. Topics include habituation, sensitization, Pavlovian conditioning, operant conditioning and social learning. Emphasis on analyzing primary literature, designing and analyzing basic experimental research.
Registration Restrictions: Graduate standing
May Be Stacked With: PSY A468
Prerequisites: PSY A600 with a minimum grade of B.
Corequisites: PSY A668L.

PSY A668L Learning and Behavior Laboratory **1 Credit**
Provides advanced experience designing and conducting experiments demonstrating major learning principles.
Registration Restrictions: Graduate standing
May Be Stacked With: PSY A468L
Corequisites: PSY A668.

PSY A670 Psychotherapy Internship **3 Credits**
Supervised psychotherapy with clients in a variety of settings throughout the community.
Special Note: May be repeated twice for credit. A minimum of two successfully completed semesters (grade of B or better) is required for graduation. Placement at approved settings will be assigned according to the student's specialization and availability of sites.
Registration Restrictions: Graduate standing and admission to the Master of Science in Clinical Psychology; candidacy status, only with instructor approval
May Be Stacked With: PSY A653
Prerequisites: PSY A665 with a minimum grade of B.

PSY A671 Grant Writing **1,3 Credit**
Provides hands-on training in developing, writing, and submitting grant proposals. Discusses components of the grant writing process with an emphasis on services grant writing for nonprofits and public agencies. Emphasizes research grant writing, with a focus on NIH grant application and review process, and secondary attention to NSF process.

Special Note: May be taken for 1 credit or 3 credits, with the 3-credit course requiring the preparation of a full proposal. If students are taking the 1-credit course and taking the 3-credit course, only 3 credits can be counted towards the degree.
Registration Restrictions: Graduate standing in Psychology
Prerequisites: PSY A639.

PSY A672 Practicum Placement - Community I **1-3 Credits**
Community practicum experience that provides increased depth in applying theory to practice and improving skills as a community psychologist. Impact of cultural factors will be a major aspect of the practicum experience.
Special Note: May be repeated for a maximum of 6 credits.
Registration Restrictions: Graduate standing and admission to the PhD in Clinical-Community Psychology

PSY A673 Practicum Placement - Community II **1-3 Credits**
Advanced community practicum experience that provides hands-on opportunities to create depth and breadth in designing creative applications of theory to practice and independently applying and honing skills as a community psychologist. Impact of cultural factors will be a major aspect of the practicum experience.
Special Note: May be repeated for maximum of 6 credits.
Registration Restrictions: Graduate standing and admission to Ph.D. Program in Clinical-Community Psychology
Prerequisites: PSY A672.

PSY A677 Multidisciplinary Seminar in Children's Mental Health **1 Credit**
Provides an interdisciplinary approach to working with children and families in a variety of behavioral/mental health and educational settings.
Special Note: Course is one credit per semester over two sequential semesters.
Registration Restrictions: Graduate standing
Crosslisted With: EDSE A677 and SWK A677

PSY A678 Advanced Applications of Behavior Analysis **3 Credits**
Explores advanced topics in behavior analysis, emphasizing the role of the behavior analyst as a scientist-practitioner. Includes in-depth analysis of the philosophical history of behaviorism, modern behavioral research and application of behavior analysis to socially relevant problems.
Special Note: Not available for credit to students who have completed PSY A478.
Registration Restrictions: Graduate standing
May Be Stacked With: PSY A478
Prerequisites: PSY A600 with a minimum grade of B.

PSY A679 Multicultural Psychological Assessment I **3 Credits**
Introduces administration, scoring, and interpretation of various intellectual and objective personality assessment instruments, as well as their psychometric properties, focused on adults. Emphasizes the meaningful integration of test results into a culturally sensitive assessment report. Highlights professional and ethical issues related to multicultural practices emphasizing Alaska Natives.
Registration Restrictions: Graduate standing and admission to the Doctor of Philosophy in Clinical-Community Psychology
Prerequisites: PSY A633 with a minimum grade of B.

PSY A681 Substances of Abuse in Alaska **1 Credit**
An overview of the most prevalent substances of abuse in Alaska, including physical, psychological, social, and medical consequences of use and abuse.
Registration Restrictions: Graduate standing in psychology or related field. Instructor permission available for individuals with professional experience in substance abuse treatment.

PSY A682 Clinical Interventions for Substance Abuse **1 Credit**
Contemporary approaches to substance abuse treatment. Emphasis is on conceptualizing substance abuse as a continuum from intervention to after-care. Focus of the course is designed around the study of therapeutic communities in the Anchorage area.
Registration Restrictions: Graduate standing in psychology or related field. Instructor permission available for individuals with professional experience in substance abuse treatment.
Prerequisites: PSY A623.

PSY A683 Substance Abuse Assessment and Treatment Planning **1 Credit**
Assessment, measurement issues, and treatment planning in the context of clinical work with substance abusing individuals.
Registration Restrictions: Graduate standing in psychology or related field. Instructor permission available for individuals with professional experience in substance abuse treatment.

PSY A684 Clinical Supervision and Consultation **3 Credits**
Familiarizes students with the clinical, ethical, and cultural issues involved in supervision and consultation. Examines contemporary, empirically supported information regarding various approaches to and models of supervision and consultation. Covers both the relationship inherent in clinical supervision and consultation, and training in leadership and supervision of and consultation with employees in other work settings.
Registration Restrictions: Graduate standing and admission to the Ph.D. Program in Clinical-Community Psychology
Prerequisites: PSY A653.

PSY A686 Doctoral Internship **6 Credits**
Deepens understanding and application of assessment and intervention techniques in diverse settings. Students are placed in clinical or community settings for 40 hours per week to apply and sharpen skills. Students work under a local supervisor who manages student caseloads and assignments in collaboration with the course instructor.
Special Note: Must be taken for three consecutive semesters.
Registration Restrictions: Graduate standing and admission to the Ph.D. in Clinical-Community Psychology; passing of clinical portfolio; approval of dissertation proposal; approval of advancement to internship; and Program Director approval

PSY A687 Multicultural Psychological Assessment II **3 Credits**
Presents advanced psychological assessment tools including interviews, projective techniques and neurocognitive assessment. Emphasizes the integration of cognitive, personality and other test results derived from an assessment battery into a meaningful and culturally sensitive psychological assessment report.
Registration Restrictions: Graduate standing and admission to the Doctor of Philosophy in Clinical-Community Psychology
Prerequisites: PSY A679 with a minimum grade of B.

PSY A690 Advanced Topics in Psychology **1-3 Credits**
Special topics of interest in psychology offered to those with graduate standing in psychology. Presented by researchers and/or behavioral health experts. Designed for graduate students seeking advanced training in special areas of clinical psychology. Specific titles to be announced.
Special Note: May be repeated for a maximum of 6 credits with change of subtitle.
Registration Restrictions: Graduate standing in psychology
May Be Stacked With: PSY A490 and PSY A492

PSY A691 Children's Mental Health Systems of Care **3 Credits**
Examines systems of care as a coordinated network of home, community, and school-based services and supports that are multidisciplinary and in partnership with children, youth and families. Addresses the cultural and linguistic needs of families in order to promote healthy development and meet the challenges of children and youth with mental and behavioral health needs.
Registration Restrictions: Graduate standing
Crosslisted With: EDSE A691 and SWK A691

PSY A695B Applied Clinical Skills Practicum **3 Credits**
Provides arranged, advanced experiential learning experience in a supervised setting that provides behavior analytic, psychological, or social services. Focus on development of skills for the professional behavior analyst including professionalism, communication, and basic ethics for helping professionals. Students are expected to complete 90 hours of supervised experience in a behavior analytic setting with supervision by a licensed behavior analyst or other relevant supervisor available on-site. Emphasizes hands-on experience with assessment, designing and implementing treatment plans, and supervision of direct support workers.
Special Note: May be repeated twice for credit. Meets Applied Behavior Analysis (ABA) program requirement for supervised experiential learning requirement.
Registration Restrictions: Graduate standing in psychology and instructor approval
May Be Stacked With: PSY A495B
Prerequisites: PSY A600 with a minimum grade of B and PSY A611B with a minimum grade of B and PSY A613 with a minimum grade of B and PSY A623 with a minimum grade of B.

PSY A695C Psychotherapy Practicum **1-3 Credits**
Applies techniques focusing on psychotherapy issues and problems encountered in the general psychotherapy setting. Provides supervised experience in the process of psychotherapy with particular focus placed on cultural diversity.
Special Note: May be repeated for a maximum of 6 credits.
Registration Restrictions: Graduate standing and admission to the Master of Science in Clinical Psychology or Doctor of Philosophy in Clinical-Community Psychology, and instructor approval
Prerequisites: PSY A622 with a minimum grade of B or concurrent enrollment and PSY A623 with a minimum grade of B.

PSY A695D School Psychology Practicum **2 Credits**
Provides a 150-hour supervised practicum experience in school psychology repeated across two semesters. Covers all aspects of the role of a school psychologist under the direct supervision of a licensed school psychologist who provides weekly supervision in a school setting. Includes participation in group supervision seminars with the course instructor.
Special Note: May be repeated once for credit. Requires a 150-hour field placement in a school setting each semester for a total of 300 hours over two semesters.
Registration Restrictions: Admission to the Master of Science in School Psychology-Specialist and graduate standing
Prerequisites: PSY A619 with a minimum grade of B.

PSY A695E School Psychology Internship **2 Credits**
Provides a supervised 1,200-hour internship in school psychology. Covers all aspects of the role of a school psychologist under the direct supervision of a licensed school psychologist who provides weekly supervision in a school setting. Requires application of competencies across all ten National Association of School Psychologists (NASP) domains for effective and independent practice as a school psychologist.

Special Note: Must be repeated once for credit. Requires 600 hours in an approved internship setting each semester for a total of 1200 hours over two semesters.
Registration Restrictions: Graduate standing
Prerequisites: PSY A695D with a minimum grade of B.

PSY A698 Individual Research **1-3 Credits**
Individual research activities, such as literature reviews, protocol development, and pilot studies, conducted under faculty supervision. May alternatively include individual contributions to team research projects.
Special Note: May be repeated for a maximum of 3 credits.
Registration Restrictions: Graduate standing in Psychology and instructor approval

PSY A698B Behavior Analytic Research Project (Thesis Equivalent) **3 Credits**
Develops and captures students' learning related to systematic investigations and scholarly research projects in behavior analysis. Includes three parts: the proposal, the investigation, and the final written product.
Special Note: May be repeated once for credit. Meets the Association for Behavior Analysis International (ABAI) thesis equivalent standard and supervised experiential learning standard.
Registration Restrictions: Admission to the Master of Science in Clinical Psychology (Behavior Analysis Track) and graduate standing
Prerequisites: PSY A610 with a minimum grade of B.

PSY A698P Research Project **3 Credits**
Performs research under the supervision of a primary and a secondary research mentor. Culminates in a document prepared to publication standards and a research presentation.
Registration Restrictions: Admission to the Ph.D. in Clinical-Community Psychology and graduate standing.
Prerequisites: PSY A639 with a minimum grade of B.

PSY A699 Thesis **1-6 Credits**
Independent project under the supervision of a thesis advisor and thesis committee, culminating in a document prepared to publication standards.
Registration Restrictions: Graduate standing, candidacy status and thesis chair approval
Prerequisites: PSY A639.

PSY A699D Dissertation **1-9 Credits**
Involves independent empirical research under the supervision of an individual dissertation committee. Culminates in a document prepared to publication standards and a public presentation.
Special Note: Students may enroll for variable credit, but 18 credits are both the minimum required and the maximum allowed for graduation.
Registration Restrictions: Graduate standing and admission to the Ph.D. in Clinical-Community Psychology
Prerequisites: PSY A698P with a minimum grade of B.

Public Administration (PADM)

Courses

PADM A601 Introduction to Public Administration and Policy **3 Credits**
Introduces the fields of public administration and policy. Analyzes the scope, nature, history, current context and basic tools in the study of public policy and administration. Topics covered include social, economic and political environments of policy and administration; comparative policy/administration; bureaucratic politics; power and authority; law; ethics of policymakers and administrators; and politics of expertise.
Special Note: Offered fall and spring semesters.
Registration Restrictions: Graduate standing

PADM A602 Seminar in Public Management **3 Credits**
Focuses on tools and insights that support individual growth in ethical, effective, and efficient management abilities. Students are offered the opportunity for personal development in the context of understanding their own strengths and challenges as a manager in a diverse workforce.

Registration Restrictions: Graduate standing

PADM A603 Management Analysis **3 Credits**
Introduction to organizational and systems analysis, systems theory, information systems, procedure analysis, management planning, and management problem solving.
Registration Restrictions: Graduate standing and instructor approval

PADM A604 Research Methods in Public Administration **3 Credits**
This course introduces methods of empirical research, including research design, survey sampling, data collection and statistical analysis. There is a special emphasis on communicating results of analysis to administrators, policymakers and the public.
Registration Restrictions: Graduate standing and successful completion of an introductory course in statistics with a minimum grade of C

PADM A606 The Policymaking Process **3 Credits**
Examines the skills, protocols and insights required to understand, and participate in the policymaking process. Offers a historical, theoretical, and practical framework for policymaking in a democratic society. Examines the internal and external forces that influence policy development and addresses practical and ethical decision-making considerations.
Registration Restrictions: Graduate standing

PADM A608 Organizational Theory, Design and Development **3 Credits**
Prepares students to navigate complex and changing organizational environments and to implement effective organizational design and development. Examines relationships between national events and political and cultural perceptions that impact public organizational environments. Offers a comprehensive framework of organizational theory, practical models and tools that develop organizational resilience.

Registration Restrictions: Graduate standing or instructor permission

PADM A610 Public and Non-Profit Organizational Behavior **3 Credits**
Focuses on applying knowledge and practices of organizational development in public and non-profit institutions. Offers an understanding of human behavior in the workplace from individual, group and organizational perspectives. Examines a broad menu of behavior theory. Presents an in-depth study of organizational behaviors including concepts of motivation, leadership style, authority, collaboration and change.
Registration Restrictions: Graduate standing

PADM A620 Internship in Public Administration/Policy **1-3 Credits**
Applied work experience in public administration or policy analysis. The course consists of the equivalent of three months of full-time work in an approved state, federal, local, or private agency, under the supervision of a senior agency employee in cooperation with a faculty advisor. An internship journal and a final internship report are required.
Special Note: Offered as demand warrants.
Registration Restrictions: Graduate standing and instructor approval

PADM A624 Human Resources Administration and Labor Relations **3 Credits**
Presents a broad spectrum of practical skills, protocols, tools and regulations relating to human resource administration and labor relations in the public sector. Examines the legal requirements, historical context, and ethical underpinning of human resource management and labor relations.
Registration Restrictions: Graduate standing

PADM A628 Public Financial Management **3 Credits**
Introduction to the management and administration of public financial resources. The course focuses on finance issues currently faced by professionals who are responsible for administration of public funds. This course explains the local budgetary process and familiarizes students with the following: budget development and implementation; debt financing, operating and capital budgets; accountability and corruption; and integrating performance measures within budgets.
Registration Restrictions: Graduate standing

PADM A632 Public Policy Analysis **3 Credits**
Combines theory and practical approaches to public policy analysis. Students are trained to identify policy problems, to select an appropriate method for analysis and to analyze public policy options.
Registration Restrictions: Graduate standing and instructor approval, PADM A604 recommended

PADM A640 Dispute Resolution **3 Credits**
Reviews literature and principles of dispute resolution. Focuses on negotiation, mediation, and consensus building as ways to resolve individual conflicts, group conflicts, and public disputes.
Registration Restrictions: Graduate standing or permission of instructor

PADM A650 Alaska Policy Studies **3 Credits**
Employs analysis and problem-solving skills to gain an understanding of Alaska's dynamic, contemporary and unique policy issues. Topics include the state's government structure and political environment, economy, federal influences, Alaska Native perspectives, and Arctic futures.
Registration Restrictions: Graduate standing

PADM A651 Issues in Arctic Policy **3 Credits**
Provides an overview of current Arctic policy issues from sustainable development to national security, and introduces major actors and governance structures. Examines the rapid political, social, economic and climate changes occurring across the circumpolar north.
Registration Restrictions: Graduate standing

PADM A652 Geographic Information Systems (GIS) for Policy and Planning **3 Credits**
An overview and hands-on experience of various spatial analysis tools to explore spatial questions related to policy decisions and planning. Students will use social and environmental Geographic Information Systems (GIS) datasets to test hypothesis, discover spatial patterns, and visualize data related to policy issues among a variety of disciplines.
Registration Restrictions: Graduate standing or instructor approval

PADM A659 Public Administration Capstone **3 Credits**
Demonstrates PADM student ability to synthesize MPA graduate-level coursework through a final capstone project. Refines student knowledge and skills to identify a client, define a topic, conduct research, and prepare and present a policy report. Integrates research, critical thinking and communication skills as well as experiential and theoretical learning.
Registration Restrictions: Successful completion of the MPA comprehensive core program.

PADM A660 Public Policy Capstone A **3 Credits**
Synthesizes Master of Public Policy graduate-level course work through a final capstone project in the first semester of a two-semester course series. Refines student knowledge and skills to identify a policy problem and audience. Students execute a research methodology from a proposal. Integrates research, critical thinking, and communication skills as well as experiential and theoretical learning.
Special Note: Offered in the fall as first of two sequential courses.
Registration Restrictions: Graduate standing and instructor approval
Prerequisites: PADM A604 with a minimum grade of B.

PADM A661 Public Policy Capstone B **3 Credits**
Synthesizes Master of Public Policy graduate-level course work through a final capstone project. Second part of the capstone experience, this course focuses on translating research data into a public presentation and publication, and how to demonstrate leadership in policy creation.
Special Note: Offered in the spring. Second of two sequential courses.
Registration Restrictions: Graduate standing
Prerequisites: PADM A660 with a minimum grade of B.

PADM A671 Selected Topics in Public Administration **1-3 Credits**
Analyzes selected public administration issues. Topics will be announced in the published class schedules.
Registration Restrictions: Faculty permission or graduate standing

PADM A688 Program Evaluation and Performance Measurement **3 Credits**
Covers theory and practice of program evaluation and performance measurement. Course topics include: needs assessment techniques, an understanding of program logic models, research designs for program evaluation, qualitative and quantitative evaluation approaches, and cost benefit analysis. Development of performance measures, ethics and communicating findings are also covered.
Registration Restrictions: Graduate standing; one undergraduate or graduate statistics course; PADM A604 recommended

Radiologic Technology (RADT)

Courses

RADT A101 Fundamentals for Limited Radiography I **3 Credits**
Introduces theory and application of diagnostic radiography for limited radiographers. Includes equipment operation and maintenance, image production, digital image receptors, and beam limitation devices.
Registration Restrictions: Departmental approval

RADT A102 Fundamentals for Limited Radiography II **3 Credits**
Introduces theory and application of diagnostic radiography for limited radiographers. Includes medical and legal responsibilities of radiography, principles of radiation protection, and patient care and management.
Registration Restrictions: Departmental approval

RADT A103 Procedures for Limited Radiography I **3 Credits**
Introduces theory and application of diagnostic radiography for limited radiographers to include radiographic terminology, anatomy, positioning, evaluation criteria of limited radiography exams and concepts of radiation protection.
Registration Restrictions: Departmental approval
Prerequisites: RADT A101 with a minimum grade of D and RADT A102 with a minimum grade of D.

RADT A111 Introduction to Radiologic Technology and Patient Care **3 Credits**
Examines principles, practices, and policies of professionalism, basic concepts of patient care, safety, and medical ethics and law as it relates to the profession. Provides an overview of radiography and the practitioner's role in the health care delivery system.
Registration Restrictions: Department approval

RADT A131 Radiographic Procedures I **3 Credits**
Provides instruction regarding basic principles of radiographic procedures in performing examinations of the chest, abdomen, skeleton, and pelvic girdle. Introduces the principles of radiation protection. Incorporates radiographic terminology and anatomy and allows for demonstration, practice, simulation and evaluation of techniques in a laboratory environment.
Registration Restrictions: Department approval
Corequisites: RADT A131L.

RADT A132 Radiographic Procedures II **3 Credits**
Provides instruction regarding basic principles of radiographic procedures in performing examinations of the spine, bony thorax, alimentary tract, genitourinary system, and associated specialized procedures. Incorporates radiographic terminology and anatomy and allows for demonstration, practice, simulation, and evaluation of techniques in a laboratory environment.
Registration Restrictions: Department approval
Prerequisites: RADT A111 with a minimum grade of C and RADT A131 with a minimum grade of C and RADT A161 with a minimum grade of C.
Corequisites: RADT A132L.

RADT A133 Radiographic Procedures III **2 Credits**
Provides instruction regarding basic principles of radiographic procedures in performing skull procedures and allowing for demonstration, practice, and evaluation of performance in a laboratory environment. Includes information related to pharmacology and venipuncture as related to the scope of practice of the radiographer.
Registration Restrictions: Department approval
Prerequisites: RADT A132 with a minimum grade of C.
Corequisites: RADT A133L.

RADT A151 Radiographic Physics **2 Credits**
Provides fundamental knowledge of atomic structure and terminology. Includes the nature and characteristics of radiation, X-ray production, the fundamentals of photon interactions with matter and electrical circuity.
Registration Restrictions: Department approval
Prerequisites: BIOL A111 with a minimum grade of C.

RADT A161 Fundamentals of Medical Imaging I **3 Credits**
Provides an overview of the foundations of radiography and foundational knowledge of the relationship between electricity and magnetism. Discusses the components of an electric circuit in the production of x-rays. Establishes a knowledge base in radiographic equipment, design and factors that govern the image production process.
Registration Restrictions: Department approval

RADT A171 Fundamentals of Medical Imaging II **3 Credits**
Introduces concepts that emphasize the importance of image standards, factors that affect image quality, image evaluation and critique. Expands on principles that influence the production and recording of radiographic and fluoroscopic images. Provides fundamental knowledge of imaging system processing and work flow from analog to digital radiographic systems.
Registration Restrictions: Department approval
Prerequisites: RADT A161 with a minimum grade of C.

RADT A195A Radiography Practicum I **2 Credits**
Provides structured and supervised application of radiographic skills in a health care facility, including patient interaction in the performance of examinations, positions and projections. Provides opportunity for continued development of previously gained practicum experience. Duties are assigned by the UAA instructor/clinical educator and supervised by an ARRT registered radiologic technologist.
Registration Restrictions: Department approval
Prerequisites: RADT A111 with a minimum grade of C and RADT A131 with a minimum grade of C and RADT A161 with a minimum grade of C.

RADT A195B Radiography Practicum II **6 Credits**
Provides structured and supervised application of radiographic skills in a health care facility, including patient interaction in the performance of examinations, positions and projections. Provides opportunity for continued development of previously gained practicum experience. Duties are assigned by the UAA instructor/clinical educator and supervised by an ARRT registered radiologic technologist.
Registration Restrictions: Department approval
Prerequisites: RADT A132 with a minimum grade of C and RADT A171 with a minimum grade of C and RADT A195A with a minimum grade of P.

RADT A231 Sectional Anatomy for Diagnostic Imaging **3 Credits**
Provides an in-depth study of human anatomy through the use of cross-sectional images. Includes anatomical structural relationships and classification of anatomical regions. Transverse, sagittal and coronal views of the head, neck, thorax, abdomen, pelvis and extremities will be correlated with Magnetic Resonance Imaging and Computer Tomography images.
Registration Restrictions: Departmental approval.

RADT A240 Introduction to Computed Tomography **1 Credit**
Introduces the basic principles of computed tomography. Discusses the location of major anatomical structures in cross-sectional imaging planes.
Registration Restrictions: Department approval

RADT A251 Radiobiology and Protection **2 Credits**
Provides a comprehensive overview of the principles of radiation biology and protection as they pertain to the interaction of radiation with living systems.
Registration Restrictions: Department approval
Prerequisites: RADT A171 with a minimum grade of C.

RADT A270 Quality Control and Quality Assurance in Medical Imaging **1 Credit**
Discusses management, collection and analysis of quality control data and test instrumentation. Includes government standards and guidelines that establish accreditation and licensure.
Registration Restrictions: Department approval

RADT A272 Ethics in Medical Imaging **2 Credits**
Explores ethics and laws relating to the practice of medical imaging. Examines a variety of ethical and legal issues found in clinical practice. Discusses the importance of professional development and advancement.
Registration Restrictions: Department approval

RADT A280 Medical Imaging Pathology **3 Credits**
Introduces theories of disease causation and the pathophysiologic disorders. Presents etiology, pathophysiologic responses, clinical manifestations, radiographic appearance, and management of alterations in body systems. Includes multiple imaging modalities for pathologic correlation.
Registration Restrictions: Department approval

RADT A292 Radiologic Technology Seminar **1 Credit**
Provides opportunity for discussion and evaluation of experiences in clinical practicum courses. Covers professional practice issues in preparation for the transition to employment.
Special Note: Prepares students for the American Registry of Radiologic Technology (ARRT) examination and assists with application submission.
Corequisites: RADT A295B.

RADT A295A Radiography Practicum IV **5 Credits**
Provides opportunities for direct and indirect supervised development of radiographic skills in a health care facility, including patient interaction in the performance of select radiographic examinations. Continues the development of previously learned clinical skills.
Registration Restrictions: Department approval
Prerequisites: RADT A195B with a minimum grade of P.

RADT A295B Radiography Practicum V **5 Credits**
Provides continued opportunities for direct and indirect supervised development of radiographic skills in a health care facility, including patient interaction in the performance of select radiographic examinations. Continues the development of previously learned clinical skills. Concludes the development of career entry skills for the radiologic technologist.
Registration Restrictions: Departmental approval
Prerequisites: RADT A295A with a minimum grade of P.

Refrigeration & Heating (RH)

Courses

RH A101 Refrigeration and Air Conditioning I **4 Credits**
Introduces the concepts behind mechanical cooling, including states of matter, heat transfer, and the gas laws. Explores basic refrigeration components, such as compressors, condensers, evaporators, and metering devices. Offers instruction in the proper use of tools and testing devices applicable to the refrigeration and air-conditioning trades. Includes instruction on the design, construction, troubleshooting, and repair of household refrigerators and freezers.

RH A103 Technical Mathematics for Industrial Trades **3 Credits**
Focuses on mathematics as applied to trade and vocational work. Covers fractions, decimals, percentage, powers of numbers, and basic algebraic elements. Also explores geometric concepts, ratios and proportions, scale drawings, and trigonometric functions.

RH A105 Electrical Circuits for Refrigeration and Heating **3 Credits**
Explores the fundamentals of electricity, electrical safety, magnetism and its association with electricity, Ohm's Law, series and parallel circuits, capacitance, inductance, resistance, transformers, AC motors, and power factor. Introduces schematics and wiring diagrams, units of electrical measurement, and the use of meters to analyze circuits. Covers conductor sizing and motor protection for single-phase and three-phase motors.
Special Note: Students should be able to apply basic technical math skills.

RH A107 Fundamentals of Heating **4 Credits**
Introduces knowledge and skills needed for the installation and service of forced air and hydronic heating systems. Covers maintenance, installation and troubleshooting of oil- and gas-fired furnaces and low-pressure boilers.

RH A109 HVAC/R Codes **1 Credit**
Introduces the concept of mechanical building codes. Presents mechanical building codes as adopted by the State of Alaska, covering sections of the International Mechanical Code related to heating, ventilation, air conditioning and refrigeration (HVAC/R).

RH A122 Refrigeration and Air Conditioning II **4 Credits**
Introduces and analyzes properties and applications of common refrigerants. Explores mechanical cooling systems for refrigeration/air conditioning. Discusses various alternative cooling methods. Emphasizes safe refrigerant handling and preparation for the EPA Section 608 certification exam. Guides students through the process of building functional refrigeration systems in the lab and learning to properly adjust and maintain refrigeration equipment.
Prerequisites: RH A101 with a minimum grade of C.

RH A124 HVAC/R Distribution Systems **4 Credits**
Introduces heating, ventilation and air conditioning systems by category and application. Includes both air-side and water-side systems, along with humidification, ventilation, air filtration, and air duct design and fabrication.
Prerequisites: RH A101 with a minimum grade of C and RH A107 with a minimum grade of C.

RH A126 HVAC/R Control Systems **3 Credits**
Builds understanding of electro-mechanical controls and introduces pneumatic and solid-state controls for HVAC/R systems. Introduces concepts and components of residential and commercial heating and cooling control applications. Explores controls for forced air and hydronic control systems. Lab projects provide opportunities for practical application of course content.
Prerequisites: RH A105 with a minimum grade of C.

RH A132 HVAC/R Troubleshooting Essentials **1 Credit**
Covers systematic analysis and troubleshooting of HVAC/R systems to include mechanical, piping, electrical, and control systems with heavy emphasis on lab activities and training devices. Uses actual equipment with component faults to strengthen and test troubleshooting skills.
Prerequisites: RH A101 with a minimum grade of C and RH A105 with a minimum grade of C.
Corequisites: RH A122.

RH A201 Commercial and Ammonia Refrigeration **4 Credits**
Covers commercial refrigeration systems, including ammonia refrigeration, CO2 refrigeration, components unique to commercial and industrial refrigeration, ice makers and ice making equipment, grocery store display cases, compressor racks, defrost methods, lubrication systems and oil return, effects of system contaminants, and pipe sizing. Introduces the safe startup and operation of a liquid overfeed ammonia refrigeration system.
Prerequisites: RH A122 with a minimum grade of D and RH A126 with a minimum grade of D.

RH A203 HVAC/R Basic Controls **3 Credits**
Introduces concepts and components of basic residential and commercial heating and cooling control applications. Explores primary burner controls for forced air and hydronic control systems. Lab projects give practical application to the knowledge covered in the course.
Prerequisites: RH A126 with a minimum grade of D and RH A132 with a minimum grade of D.

RH A225 Heating Fundamentals and Forced Air Heat **4 Credits**
Introduces knowledge and skills needed for the installation and service of forced air heating systems. Covers beginning maintenance and installation to advanced troubleshooting of heating systems.
Prerequisites: RH A109 with a minimum grade of D.

RH A226 Commercial HVAC/R Systems **4 Credits**
Introduces commercial heating, ventilation, and air conditioning systems by category and application. Includes both air-side and water-side systems, along with humidification, ventilation, and air filtration requirements.
Prerequisites: RH A225 with a minimum grade of D.

RH A228 Advanced Hydronic Heat Systems **4 Credits**
Explores hydronic heating sources and emitters. Covers residential and light commercial boilers and hydronic heating systems. Includes radiant panel heating, emphasizing wiring and troubleshooting of hydronic controls.
Prerequisites: RH A225 with a minimum grade of D.

RH A229 HVAC/R Control Systems **3 Credits**
Surveys heating, ventilation, and air conditioning control systems and control theory. Topics will include pneumatic, electronic, and direct digital control (DDC) systems.
Prerequisites: RH A203 with a minimum grade of D.

Renewable Energy (RE)

Courses

RE A140 Home Energy Basics **1 Credit**
Introduces the fundamental principles and skills to complete a home energy audit.

Russian (RUSS)

Courses

RUSS A101 Elementary Russian I **4 Credits**
Introductory course for students with no previous knowledge of the Russian language. Develops listening, speaking, reading, and writing skills in Russian for effective communication at the elementary level. Students gain understanding of basic cross-cultural perspectives. Course conducted in Russian.
Attributes: UAA Humanities GER.

RUSS A102 Elementary Russian II **4 Credits**
Continuation of introductory course. Further develops elementary listening, speaking, reading, and writing skills in Russian for effective communication. Enhances appreciation of cross-cultural perspectives. Course conducted in Russian.
Prerequisites: RUSS A101 with a minimum grade of D.
Attributes: UAA Humanities GER.

RUSS A201 Intermediate Russian I **4 Credits**
Intermediate course for students with basic knowledge of Russian. Enhances listening, speaking, reading, and writing skills for effective communication at the intermediate level. Students critically examine diverse cultural perspectives. Course conducted in Russian.
Prerequisites: RUSS A102 with a minimum grade of D.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER.

RUSS A202 Intermediate Russian II **4 Credits**
Continuation of first semester in intermediate Russian. Further develops listening, speaking, reading, and writing proficiency for effective communication and in preparation for advanced study of Russian. Students interpret diverse cultural perspectives. Course conducted in Russian.
Prerequisites: RUSS A201 with a minimum grade of D.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER.

Social Work (SWK)

Courses

SWK A106 Introduction to Social Welfare **3 Credits**
Analyzes social inequality in the American social welfare system and traces government response to social inequality. Explores historical and persisting dilemmas-ethical, political, social, and economic-explicit and implicit in social welfare provisioning. Develops understanding of social welfare programs, problems, and solutions. The domains of welfare to be considered include health, education, employment, housing, and safety net programs.
Attributes: UAA Intercultural Fluency GER, UAA Social Sciences GER.

SWK A151 Introduction to Social Work **3 Credits**
Introduces the profession of social work and its fields of practice, roles, professional values and ethics, social work education, and guiding theories and perspectives from an anti-oppression framework. Highlights the profession's commitment to engaging diversity, economic justice, and advancing human rights of marginalized individuals and communities, with particular focus on Alaska.

SWK A243 Diversity, Equity and Inclusion through Community Service Learning **3 Credits**
Uses intersectionality as a framework for exploring multiple dimensions of difference and their relationship to oppression, privilege, and cultural humility. Applies concepts introduced in the class to students' interactions with clients of community-based partner organizations as part of a required 20-hour service learning component.
Attributes: UAA Intercultural Fluency GER, UAA Alaska Native-Themed GER, UAA Social Sciences GER.

SWK A330 Social Work Practice with Individuals **4 Credits**
Develops generalist social work knowledge and skills for practice with individuals. Includes both lectures and a relationship-building/ interviewing skills labs that supports students' integration of professional values, commitment to anti-oppressive practice, and knowledge of the needs and resources of Alaska into the planned change process.
Prerequisites: SWK A151 with a minimum grade of C and SWK A243 with a minimum grade of C.

SWK A335 Human Behavior in the Social Environment **3 Credits**
Examines the biological, psychological, social, cultural, and spiritual dimensions of human behavior across the lifespan. Integrates theory and diverse perspectives in the context of individuals, families, groups, organizations, and communities to guide anti-oppressive practice with client systems.
Prerequisites: PSY A150 with a minimum grade of C.

SWK A336 Writing for Social Work Practice **3 Credits**
Develops and refines students' professional writing skills to advance their representation of social work practice and the people they serve in equitable, anti-oppressive, and strength-oriented ways. Emphasizes critical thinking and analysis in effective professional writing as required for generalist social work practice.
Prerequisites: WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C or WRTG A2W with a minimum grade of C.

SWK A340 Social Work Practice with Families and Groups **3 Credits**
Develops generalist social work practice knowledge, values and skills in implementing the planned change process with families and groups. Applies the evidence-based practice process, guided by values, ethics, culture, research, theory, client preferences, and the needs of Alaskan families and groups.
Prerequisites: SWK A330 with a minimum grade of C.

SWK A345 Case Management in Social Work Practice **3 Credits**
Enhances knowledge and skill development in delivering professional social work case management, care coordination, and discharge planning services to individuals and families. Emphasizes the planned change and evidence-based practice processes. Develops professional skills guided by social work values and ethics, cultural contexts, and the needs of Alaska.
Prerequisites: SWK A330 with a minimum grade of C.

SWK A346 Research for Social Work Practice **3 Credits**
Introduces quantitative and qualitative research methods. Contributes to the development of skills to effectively consume empirical research to inform social work practice. Provides a foundation for evaluating and utilizing research findings to employ the evidence-based practice process, evaluate social work practice outcomes, and improve social work services and service delivery, with particular focus on the Alaska context.

SWK A363 Great Books in Social Work **3 Credits**
Focuses on the directed reading of a social work text which has enduring significance for the profession, supplemented by other readings. The focal text and supplemental readings will vary with the instructor.
Prerequisites: WRTG A111 with a minimum grade of D or SWK A106 with a minimum grade of D.

SWK A401 Foundations: Child Welfare Practice I **3 Credits**
Provides understanding of foundations of child welfare practice. Provides understanding of child welfare; Indian Child Welfare Act (ICWA); Child in Need of Aid (CINA); historical trauma; trauma across the lifespan; child welfare ethics; cultural humility; bias and dimensions of diversity and difference; child welfare policy and legal authority; judicial and legal systems; prevention of child maltreatment; and family-centered professional orientation.
Registration Restrictions: Department approval

SWK A402 Theory and Intervention: Child Welfare Practice II **3 Credits**
Provides an understanding of theory and intervention informing effective child welfare practice. Focuses on family theory; domestic violence; trauma-informed child welfare practice; mental health; substance use; health disparities; ecological systems theory; lifespan human development/developmental tasks; empowerment theory; child welfare practices and interventions; decision-making models; team-based practice; and community/resource collaboration.
Registration Restrictions: Department approval
Prerequisites: SWK A401 with a minimum grade of C.

SWK A403 Applied Practice and Professional Skills: Child Welfare Practice III **3 Credits**
Provides an understanding of the applied practice and professional skills within child welfare practice. Focus is on professionalism; self-care/resilience; effective partnering and communication skills with high needs families; Child welfare assessment skills; building working relationships and case management.
Registration Restrictions: Department approval
Prerequisites: SWK A402 with a minimum grade of C.

SWK A409 Introduction to Child Welfare **3 Credits**
Provides an in-depth overview of child welfare policies, public and private social services, and empirically supported child welfare practices within the context of the social work profession.
Prerequisites: EDEC A107 with a minimum grade of C or PSY A150 with a minimum grade of C.

SWK A410 Trauma in Childhood **3 Credits**
Provides students with an understanding of the psychobiological, developmental and social implications of trauma exposure throughout childhood and adolescence. Introduces students to the principles of prevention, intervention and resiliency as related to childhood trauma.
Prerequisites: EDEC A107 with a minimum grade of D or PSY A365 with a minimum grade of D.

SWK A418 Practice and Advocacy: Intimate Partner Violence **3 Credits**
Introduces social work practice and advocacy related to working with individuals, families, communities, and institutions to address issues related to intimate partner violence (IPV). Provides a landscape of practice and advocacy at micro, mezzo, and macro levels through an anti-oppressive trauma-informed lens.
Registration Restrictions: Junior or senior standing
May Be Stacked With: SWK A618
Prerequisites: SWK A428 with a minimum grade of C.

SWK A422 Immigrant and Refugee Health **3 Credits**
Introduces students to health needs facing immigrants and refugees in Alaska. Examines factors that influence the physical and mental health of immigrants and refugees, such as culture, language, home country experiences, exposure, transit, resettlement experiences, immigration policies, and political landscape. Reviews cases and refugee health profiles to build evidence-based practice skills to meet the health and social needs of immigrants and refugees in Alaska.
Special Note: Not available for credit to students who have completed SWK A622.
May Be Stacked With: SWK A622

SWK A428 Social Work Practice with Organizations and Communities **3 Credits**
Develops generalist social work practice knowledge and skills in implementing the planned change process with organizations and communities. Utilizes evidence-based practice guided by values, ethics, culture, research, theory, client preferences and the needs of Alaska.
Prerequisites: SWK A340 with a minimum grade of C.

SWK A429 Trauma and Crisis Intervention in Social Work Practice **3 Credits**
Presents the historical and theoretical basis of trauma and crisis intervention within the context of generalist social work practice. Prepares students to utilize empirically-supported approaches to engage, assess, intervene, and evaluate services with individuals, families, and communities experiencing trauma and crisis. Examines historical trauma, systemic oppression, and ethical concerns for marginalized populations.

SWK A439 Social Welfare: Policies and Issues **3 Credits**
Prepares students to analyze, formulate, and advocate for empirically-supported policies that advance social, racial, economic, and environmental justice. Collaborate with colleagues and clients to carry out effective policy action in equitable and anti-oppressive ways.
Special Note: Offered concurrent with the Alaska Legislature session.
Registration Restrictions: Completion of Tier 1 (basic college-level) GER courses
Prerequisites: SWK A106 with a minimum grade of C.
Attributes: UAA Integrative Capstone GER.

SWK A440 Social Work Practice in Mental Health and Addictions **3 Credits**
Preparation for work in a variety of social service settings in which clients may be coping with problems related to mental disorders and/or addiction. A research based analysis of addictions and mental disorders as they are manifested independently and in combination; and the impact of those disorders upon clients involved in a variety of service systems such as child welfare, corrections, and domestic violence.
Registration Restrictions: Junior or senior standing. Consent of instructor.

SWK A450 Child Welfare Skills: Introduction to the Alaska Practice Model **3 Credits**
Examines public child welfare practice using the Alaska Office of Children's Services practice model in the identification, assessment, promotion of family protective factors, and intervention with unsafe and at-risk children. Focuses on client-centered case planning, interventions with families, and interprofessional collaboration with community providers and organizations.
Special Note: Students complete UAA Child Welfare Training Academy SKILS training and complete additional academic work for elective credit. This revised course is to be stacked with a new course, SWK A650. As undergraduate and graduate students receive the same two-week training, the differences in the courses are seen in the additional assignments for the graduate course, specifically requiring higher levels of content and information synthesis and deep rooting in expanded use and assessment of the evidence base informing effective practice.
Registration Restrictions: Department approval

SWK A473 Direct Practice in Elder Care **3 Credits**
Covers the knowledge, skills and values needed for effective social work practice with older adults and their families, including evidence-based assessment and intervention strategies for practice with aging adults.
Registration Restrictions: Departmental approval
May Be Stacked With: SWK A673

SWK A490 Selected Topics in Social Work **1-3 Credits**
Focuses on current topics related to social work services, diverse client groups and field of practice.
Special Note: May be repeated for a maximum of 9 credits with a change in subtitle. Not available for credit to students who have completed SWK A690 with the same subtitle.
Registration Restrictions: Junior or senior level standing
May Be Stacked With: SWK A690

SWK A492 Interprofessional Child Welfare Integrative Seminar **2 Credits**
Provides students a forum to integrate theory and coursework with a child welfare practicum experience through a collaborative and interprofessional practice lens. This seminar offers students interprofessional group-based development of professional ethics, critical thinking, knowledge, practice skills, and team-based child welfare service through discussion, case presentations, and peer support.
Special Note: This course is part of the OEC in Interprofessional Child Welfare.
Registration Restrictions: Department approval

SWK A495A Social Work Practicum I **3 Credits**
Applies social work knowledge, skills, values, and ethics within an organization or community context. Emphasizes integration and demonstration of the generalist competencies and practice behaviors. Includes completion of 224 practicum hours in an approved setting under the supervision of social work faculty and a practicum instructor appointed by the university.
Registration Restrictions: Admission to the Bachelor of Social Work
Prerequisites: SWK A428 with a minimum grade of C.

SWK A495B Social Work Practicum II **3 Credits**
Applies social work knowledge, skills, values, and ethics within an organization and/or community context. Emphasizes continued integration and demonstration of the generalist competencies and practice behaviors. Includes completion of 224 practicum hours in an approved setting under the supervision of social work faculty and a practicum instructor appointed by the university.
Registration Restrictions: Admission to the Bachelor of Social Work
Prerequisites: SWK A495A with a minimum grade of C.

SWK A495C Child Welfare Practicum **1-8 Credits**
Focuses on the interprofessional features of Alaskan child welfare practice through a program-approved practicum; address issues and challenges faced as intern child welfare practitioners; and increase insight into the dynamics of child welfare practice. Examines multiple career paths in child welfare within public, tribal, and/or nongovernmental contexts.
Special Note: Students complete a child welfare practicum of 250 hours.
Registration Restrictions: Department approval

SWK A498 Advanced Community-Based Research **3 Credits**
Application of research skills to a social welfare problem in collaboration with a community partner under the guidance of a faculty mentor. Projects must demonstrate advanced scholarship grounded in the theory and professional standards of social work practice.
Prerequisites: SWK A346 with a minimum grade of D.

SWK A607 Social Welfare Policy and Services **3 Credits**
Analyzes, formulates, and advocates for policies that advance social, racial, economic, and environmental justice. Explores approaches to developing and implementing collaborative, effective, equitable, anti-racist, and anti-oppressive policy practices.
Registration Restrictions: Graduate standing and admission to the Master of Social Work

SWK A608 Advanced Policy Practice **3 Credits**
Prepares practitioners for developing policies and shaping programs in a political economy to promote social, economic, and environmental justice. Examines contemporary social needs in a diverse and inequitable society. Emphasizes roles of research and evaluation in a policy process.
Registration Restrictions: Graduate standing, admission to the Master of Social Work, and successful completion of the generalist curriculum

SWK A618 Practice and Advocacy: Intimate Partner Violence **3 Credits**
Introduces social work practice and advocacy related to working with individuals, families, communities, and institutions to address issues related to Intimate Partner Violence (IPV). Develops the student's direct practice and advocacy skills to address IPV on the micro, mezzo, and macro levels through an anti-oppressive trauma-informed lens.
Registration Restrictions: Graduate standing
May Be Stacked With: SWK A418

SWK A620 Advanced Infant/Early Childhood Mental Health **3 Credits**
Examines current research and practice for the promotion, prevention, and intervention of infant and early childhood mental health, emphasizing a relationship-focused approach in the context of families and communities. Topics include typical and atypical social-emotional development; risk, resiliency, and protective factors in the context of families and culture; and home and community-based intervention models. Introduces early screening, assessment, and legal and ethical parameters across disciplines.
Registration Restrictions: Graduate standing or instructor approval
Crosslisted With: PSY A620

SWK A622 Immigrant and Refugee Health **3 Credits**
Introduces students to health needs facing immigrants and refugees in Alaska. Examines factors that influence the physical and mental health of immigrants and refugees, such as culture, language, home country experiences, exposure, transit, resettlement experiences, immigration policies, and political landscape. Reviews cases and refugee health profiles to build evidence-based practice skills to meet the health and social needs of immigrants and refugees in Alaska.
Special Note: Not available for credit to students who have completed SWK A422.
Registration Restrictions: Graduate standing

SWK A624 Foundation Research Methods **3 Credits**
Explores the strengths, weaknesses and challenges of quantitative and qualitative research methods and data analysis approaches. Provides a foundation for using research methods and findings to inform practice, engage in the evidence-based practice process, and evaluate programs and practice.
Registration Restrictions: Graduate standing and admission to the Master of Social Work

SWK A628 Program Evaluation **3 Credits**
Explores the principles and methods of conducting evaluation of health-related programs. Covers conducting community needs assessments, program evaluation development, evaluation types and designs, politics and ethics of conducting program evaluations, and how to effectively communicate the evaluation process and disseminate findings in meaningful and actionable ways.
Registration Restrictions: Graduate standing and admission to the Master of Public Health or the Master of Social Work, or instructor approval. Master of Social Work students must have successfully completed the generalist curriculum
Crosslisted With: HS A628

SWK A629 Advanced Practice with Individuals **3 Credits**
Develops clinical knowledge and skills to provide competent and effective services and interventions for individuals in Alaska. Focuses on the use of the planned change process through the application of theory and evidence-based practice knowledge.
Registration Restrictions: Graduate standing, admission to the Master of Social Work, and successful completion of the generalist curriculum

SWK A630 Practice with Individuals **3 Credits**
Provides generalist social work practice knowledge and skills for implementing the planned change process with individuals. Utilizes evidence-based practice guided by values, ethics, culture, research, theory, client preferences and the needs of Alaska.
Registration Restrictions: Graduate standing and admission to the Master of Social Work
Prerequisites: SWK A631 with a minimum grade of C or concurrent enrollment.

SWK A631 Introduction to Social Work Practice **3 Credits**
Introduces generalist social work practice focusing on applying the planned change and evidence-based practice processes through a social justice framework. Emphasizes applying critical reflection, self-awareness, and self-regulation to manage the influence of bias, power, privilege, and values in working with clients and constituencies, acknowledging them as experts of their own lived experiences.
Registration Restrictions: Graduate standing and admission to the Master of Social Work

SWK A632 Practice with Families and Groups **3 Credits**
Develops generalist social work practice knowledge, values, skills, and cognitive and affective processes in implementing the planned change process with families and groups. Applies the evidence-based practice process, which is guided by values, ethics, culture, research, theory, client preferences, and the needs of Alaskan families and groups.
Registration Restrictions: Graduate standing and admission to the Master of Social Work
Prerequisites: SWK A631 with a minimum grade of C or concurrent enrollment.

SWK A633 Advanced Practice with Families and Groups **3 Credits**
Focuses on the use of the planned change process through the application of theory and evidence-based practice knowledge to provide competent and effective clinical assessments and interventions for families and groups in Alaska.
Registration Restrictions: Graduate standing, admission to the Master of Social Work, and successful completion of the generalist curriculum

SWK A634 Transformational Leadership in Social Work Practice **3 Credits**
Examines the practice of transformational leadership in social work practice with groups, organizations and communities in the process of innovation to address emerging or existing needs among at-risk and vulnerable populations. This course deepens the competencies of advanced generalist MSW students in innovation practice with groups, organizations and communities and prepares students to complete a capstone leadership project in SWK A635.
Registration Restrictions: Graduate standing and admission to the Master of Social Work and successful completion of the generalist curriculum

SWK A635 Transformational Leadership Capstone **3 Credits**
MSW students demonstrate Advanced Generalist (AG) autonomous practice, leadership, creativity, and innovation by developing and implementing a capstone leadership project in which they identify and respond to a complex, multidimensional practice issue of significant importance in Alaska. Students will demonstrate the advanced generalist competencies by providing social work leadership, advancing innovation within social service systems or organizations, and engaging in community collaboration. The course builds on the content in SWK A634 Transformational Leadership in Social Work Practice.
Registration Restrictions: Graduate standing and admission to the Master of Social Work with advanced standing or successful completion of the generalist curriculum
Prerequisites: SWK A634 with a minimum grade of C.

SWK A635A Transformational Leadership Capstone Development **2 Credits**
Supports students with conceptualizing and developing a capstone leadership project proposal that identifies and responds to a complex, multidimensional practice issue facing an organization, community, or population in Alaska. Students demonstrate the advanced generalist competencies by providing social work leadership, advancing innovation, and engaging in community collaboration.
Registration Restrictions: Graduate standing, admission to the Master of Social Work, and successful completion of the generalist curriculum
Prerequisites: SWK A637 with a minimum grade of C.

SWK A635B Transformational Leadership Capstone Implementation **2 Credits**
Supports students with implementing a capstone leadership project proposal that identifies and responds to a complex, multidimensional practice issue facing an organization, community, or population in Alaska. Students demonstrate the advanced generalist competencies by providing social work leadership, advancing innovation, and engaging in community collaboration.
Registration Restrictions: Graduate standing, admission to the Master of Social Work, and successful completion of the generalist curriculum
Prerequisites: SWK A635A with a minimum grade of C.

SWK A636 Practice with Organizations and Communities **3 Credits**
Provides generalist social work practice knowledge and skills in implementing the planned change process with organizations and communities. Utilizes evidence-based practice guided by anti-racist and anti-oppressive practice, values, ethics, culture, research, theory, client preferences and the needs of Alaska.
Registration Restrictions: Graduate standing and admission to the Master of Social Work
Prerequisites: SWK A631 with a minimum grade of C or concurrent enrollment.

SWK A637 Transformational Leadership with Communities and Organizations **3 Credits**
Develops the knowledge, values, skills, and cognitive and affective processes to engage in transformational leadership practices in social work practice with organizations and communities. Applies principles of anti-racist, anti-oppressive, and trauma-informed macro social work practice in engaging, assessing, intervening, and evaluating practice with communities and organizations in Alaska.
Registration Restrictions: Graduate standing, admission to the Master of Social Work, and successful completion of the generalist curriculum

SWK A639 Advanced Generalist Intensive Practicum **6 Credits**
Advanced generalist block practicum in which student performs as an advanced generalist social worker within an organization and/or community context. Emphasis is on integration and demonstration of the advanced generalist competencies and practice behaviors. The student completes 480 hours in an approved setting under the supervision of a MSW field instructor.
Registration Restrictions: Graduate standing and admission to the Master of Social Work with concurrent enrollment in a MSW practice course
Prerequisites: SWK A629 with a minimum grade of C or concurrent enrollment.

SWK A642 Human Behavior in the Social Environment **3 Credits**
Applies theoretical knowledge about human behavior across the lifespan, the ranges of social systems in which people live, and the ways social systems promote or deter people in maintaining or achieving health and well-being to guide anti-oppressive social work practice.
Registration Restrictions: Graduate standing and admission to the Master of Social Work

SWK A643 Engaging Diversity through Justice and Anti-Oppressive Social Work Practice **3 Credits**
Examines the intersecting dimensions of human diversity as they relate to identity formation, human rights, and social, economic, environmental and racial justice through understanding oppression, privilege, and power across micro, mezzo and macro levels of social work practice. Applies critical consciousness to uplift diversity, promote social justice, and address privilege and oppression through social work practice.
Registration Restrictions: Graduate standing and admission to the Master of Social Work

SWK A648 Motivational Interviewing **3 Credits**
Motivational Interviewing (MI) is an empirically-supported, person-centered, goal-oriented approach for facilitating change by exploring & resolving ambivalence. With background lectures on the theoretical and empirical bases of MI, class sessions emphasize demonstration and practice of MI skills and strategies for diverse behavioral applications (e.g., addictions, health promotion, chronic disease management).
Registration Restrictions: Graduate standing
Crosslisted With: HS A648 and PSY A648

SWK A650 Child Welfare Skills: Introduction to the Alaska Practice Model **3 Credits**
Examines public child welfare practice using the Alaska Office of Children's Services practice model in the identification, assessment, promotion of family protective factors, and intervention with unsafe and at-risk children. Focuses on client-centered case planning, interventions with families, and interprofessional collaboration with community providers and organizations.
Special Note: As undergraduate and graduate students receive the same two-week training, the differences in the courses are seen in the additional assignments for the graduate course, specifically requiring higher levels of content and information synthesis and deep rooting in expanded use and assessment of the evidence base informing effective practice.
Registration Restrictions: Department approval
May Be Stacked With: SWK A450

SWK A651 Advanced Social Work Practice in Substance Use Disorders **3 Credits**
Provides students with knowledge and skills for advanced social work practice in the field of substance use disorders. Examines the concepts of substance misuse, substance use disorders (SUD), and addiction from different theoretical perspectives, trauma-informed approaches, and strengths-based harm reduction. Applies biopsychosocial, person-in-environment, lifespan, and social justice frameworks and emphasizes assessment, intervention planning, and intervention.
Registration Restrictions: Graduate standing
Prerequisites: SWK A632 with a minimum grade of C.

SWK A673 Direct Practice in Elder Care **3 Credits**
Covers the knowledge, skills and values needed for effective social work practice with older adults and their families, including evidence-based assessment and intervention strategies for practice with aging adults.
Registration Restrictions: Graduate standing
May Be Stacked With: SWK A473

SWK A677 Multidisciplinary Seminar in Children's Mental Health **1 Credit**
Provides an interdisciplinary approach to working with children and families in a variety of behavioral/mental health and educational settings.
Special Note: Course is one credit per semester over two sequential semesters.
Registration Restrictions: Graduate standing
Crosslisted With: EDSE A677 and PSY A677

SWK A683 Innovative Practices in Telehealth **3 Credits**
Provides an overview of telehealth with an emphasis on telebehavioral health in Alaska. Includes topics on the history of telehealth and current legal, technical and logistical considerations to prepare leaders in the expanding field of telehealth. Includes hands-on experience with telehealth technology and clinical exercises.
Registration Restrictions: Graduate standing or instructor permission
Crosslisted With: HS A683

SWK A685 Social Work Services in Schools **3 Credits**
Explores the multiple roles practiced by social workers who provide social work services in a school setting with special emphasis on practice with populations at risk and culturally diverse students and families.
Registration Restrictions: Graduate standing in social work or related discipline

SWK A690 Selected Topics in Social Work **1-3 Credits**
Focus on current topics related to social work with various system levels (individuals, families, groups, communities and organizations), fields of practice and settings.
Special Note: May be repeated for credit with a different subtitle for a maximum of 9 credits. Not available for credit to students who have completed SWK A490 with the same subtitle.
Registration Restrictions: Graduate standing
May Be Stacked With: SWK A490

SWK A691 Children's Mental Health Systems of Care **3 Credits**
Examines systems of care as a coordinated network of home, community, and school-based services and supports that are multidisciplinary and in partnership with children, youth and families. Addresses the cultural and linguistic needs of families in order to promote healthy development and meet the challenges of children and youth with mental and behavioral health needs.
Registration Restrictions: Graduate standing
Crosslisted With: EDSE A691 and PSY A691

SWK A695A Generalist Practicum I **3 Credits**
Emphasizes integration and demonstration of the generalist competencies and practice behaviors. Covers part one of the generalist practicum sequence.
Special Note: The student completes 240 practicum hours in an approved setting under the supervision of social work faculty and a MSW practicum instructor.
Registration Restrictions: Graduate standing and admission to the Master of Social Work

SWK A695B Generalist Practicum II **3 Credits**
Emphasizes integration and demonstration of the generalist competencies and practice behaviors. Covers part two of the generalist practicum sequence.
Special Note: The student completes 240 practicum hours in an approved setting under the supervision of social work faculty and a MSW practicum instructor.
Registration Restrictions: Graduate standing and admission to the Master of Social Work
Prerequisites: SWK A695A with a minimum grade of C.

SWK A695C Advanced Generalist Practicum I **3 Credits**
Emphasizes integration and demonstration of the advanced generalist competencies and practice behaviors. Covers part one of the advanced generalist practicum sequence.
Special Note: The student completes 240 hours in an approved setting under the supervision of a MSW practicum instructor.
Registration Restrictions: Graduate standing, admission to the Master of Social Work, and successful completion of the generalist curriculum

SWK A695D Advanced Generalist Practicum II **3 Credits**
Emphasizes integration and demonstration of the advanced generalist competencies and practice behaviors. Covers part two of the advanced generalist practicum sequence.
Special Note: The student completes 240 hours in an approved setting under the supervision of a MSW practicum instructor.
Registration Restrictions: Graduate standing, admission to the Master of Social Work, and successful completion of the generalist curriculum
Prerequisites: SWK A695C with a minimum grade of C.

Sociology (SOC)

Courses

SOC A101 Introduction to Sociology **3 Credits**
Introduces the science of humans as social animals, emphasizing social processes which give rise to and shape human language, experience, perception, meaning and behavior. Multiple frameworks used in understanding and predicting human behavior.
Attributes: UAA Intercultural Fluency GER, UAA Social Sciences GER.

SOC A201 Social Problems and Solutions **3 Credits**
Surveys contemporary social problems. Focuses on the causes and consequences of social problems and examines processes through which social problems are identified, prioritized, and addressed.
Attributes: UAA Intercultural Fluency GER, UAA Social Sciences GER.

SOC A202 Social Institutions **3 Credits**
Applies sociological perspectives, theories, and methodologies to the study of social institutions, including family, education, economy, government, and religion, to examine the ways in which social institutions shape the social organization of society.
Attributes: UAA Intercultural Fluency GER, UAA Social Sciences GER.

SOC A252 Women, Gender and Social Action **3 Credits**
Examines the evolving role of women and gender in contemporary organizations and social movements with an emphasis on leadership.
Crosslisted With: WSGS A252
Prerequisites: SOC A101 with a minimum grade of C or WSGS A200 with a minimum grade of C.

SOC A280 Contemporary Issues **3 Credits**
Analysis of contemporary social issues from a variety of sociological perspectives.
Special Note: May be repeated twice for credit with a change in subtitle.
Prerequisites: SOC A101 with a minimum grade of D.

SOC A307 Demography **3 Credits**
Analyzes population change, distribution and composition at the global and local level with an emphasis on fertility, mortality and health, and migration. Examines major theories of population change, evaluates demographic methods, and applies empirical data to population-based questions.
Crosslisted With: GEOG A307.
Prerequisites: SOC A101 with a minimum grade of C or GEOG A101 with a minimum grade of C or INTL A101 with a minimum grade of C.

SOC A309 Urban Sociology **3 Credits**
Examines the social, cultural, demographic, and institutional components of metropolitan growth, suburbanization, and urban inequality. Designed to provide a multilevel perspective by addressing both macro- and micro-level phenomena ranging from large-scale urban development to small-scale urban ways of life.
Prerequisites: SOC A101 with a minimum grade of C.

SOC A342 Marriages and Families **3 Credits**
Emphasizes theories and research that consider today's marital and family lifestyles, as well as class and cultural variations found in the U.S. and globally. Considers historical contexts, as well as traditional and nontraditional forms of marriages and families, including socialization of children.
Prerequisites: SOC A101 with a minimum grade of C.

SOC A343 Sociology of Deviant Behavior **3 Credits**
A critical analysis of the social etiology of deviant behavior (both criminal and non-criminal) with an emphasis on the nature of group interaction and an examination of the institutions involved.
Prerequisites: SOC A101 with a minimum grade of C or SOC A201 with a minimum grade of C or SOC A202 with a minimum grade of C.

SOC A347 Sociology of Religion **3 Credits**
Critically analyzes religion and considers the historical, cultural, social, psychological and personal aspects of religious experience and organizations in relationship to contemporary social institutions.
Prerequisites: SOC A101 with a minimum grade of C.

SOC A351 Political Sociology **3 Credits**
Introduces social aspects of politics and the nature and distribution of power in society. Examines the dynamic relationship of the political process and the institutions of society.
Crosslisted With: PS A351.
Prerequisites: (WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C) and (PS A102 with a minimum grade of C or SOC A101 with a minimum grade of C).

SOC A363 Social Stratification **3 Credits**
Examines social inequality across multiple dimensions such as income, wealth, power, prestige, race and gender. Describes historical patterns of stratification and investigates the causes and consequences of inequality.
Prerequisites: SOC A101 with a minimum grade of C.

SOC A377 Sociology of Gender **3 Credits**
Examines gender as a system of beliefs and practices that create difference between females and males. Analyzes how that difference is created and maintained via social institutions and critiques the outcome of these arrangements.
Prerequisites: SOC A101 with a minimum grade of C.

SOC A380 Sociology of Globalization **3 Credits**
Globalization refers to a variety of political, economic, cultural and social changes which transform the world through increasingly interconnected flows of information, capital, goods, services, labor and culture in dense global networks. This course covers the processes and consequences of globalization through an interdisciplinary framework.
Prerequisites: ANTH A101 with a minimum grade of C or ANTH A202 with a minimum grade of C or GEOG A101 with a minimum grade of C or INTL A101 with a minimum grade of C or SOC A101 with a minimum grade of C.

SOC A387 Sexuality and Society **3 Credits**
Applies sociological methods and theories to the study of the sexed body, desires, practices, identities and communities. Focuses sexuality as a site where social inequalities are both produced and challenged.
Prerequisites: SOC A101 with a minimum grade of C.

SOC A402 Social Theory **3 Credits**
Examines historical and contemporary approaches to social theory; analyzes conceptual frameworks applied to the study of society and social interaction.
Registration Restrictions: Junior or senior standing.
Prerequisites: SOC A101 with a minimum grade of C.

SOC A404 Environmental Sociology **3 Credits**
Examines how society is organized in ways that either contribute to sustainability or hinder it.
Prerequisites: SOC A101 with a minimum grade of C.

SOC A430 Social Science Research Methods **3 Credits**
Introduces modes of scientific data gathering, analysis, and interpretation in the social sciences. Includes the logic of scientific inquiry, research design, data collection and analysis, reporting results, community/partner collaboration, and ethics in social science research.
Special Note: Not available for credit to students who have completed ANTH A630.
Crosslisted With: ANTH A430
May Be Stacked With: ANTH A630
Prerequisites: ANTH A101 with a minimum grade of C or ANTH A202 with a minimum grade of C or ENVI A212 with a minimum grade of C or GEOG A101 with a minimum grade of C or HS A220 with a minimum grade of C or HS A230 with a minimum grade of C or INTL A101 with a minimum grade of C or JPC A104 with a minimum grade of C or PS A102 with a minimum grade of C or PSY A111 with a minimum grade of C or SOC A101 with a minimum grade of C or SOC A201 with a minimum grade of C or SWK A106 with a minimum grade of C.

SOC A462 Social Science Statistics **4 Credits**
Provides a foundation in descriptive and inferential statistics used in social science research. Students identify, calculate and interpret statistics using statistical software.
Special Note: It is recommended that students take an introductory statistics course prior to taking this course.
Registration Restrictions: Junior or senior standing
Prerequisites: SOC A307 with a minimum grade of C or SOC A361 with a minimum grade of C.

SOC A487 Sociology Practicum **3 Credits**
Student participates in field research project and/or community action/agency program that applies sociological training toward the amelioration of specific social problems. Student will attend a seminar, class, or individual meeting with the faculty member on a weekly basis and complete six hours in the field on an approved project or program. All students will be expected to participate in the design of the practicum, and to complete a term paper or progress report.
Special Note: May be repeated once for credit.
Registration Restrictions: Faculty permission.

SOC A490 Special Topics in Sociology **1-4 Credits**
An intensive and detailed study of a topic in contemporary sociology in a seminar format.
Special Note: May be repeated for a maximum of 8 credits with a change of subtitle.
Registration Restrictions: Junior or senior standing
Prerequisites: SOC A101 with a minimum grade of D.

SOC A490A Senior Sociology Seminar **3 Credits**
Overview of the disciplinary specializations, theory and research, with critical reflection and evaluation of recent developments in sociology. Particular emphasis will be given to the interdisciplinary nature of applied sociology and its integration with other social sciences.
Special Note: May be repeated twice with a change of subtitle.
Registration Restrictions: Completion of Tier 1 GER courses and junior or senior standing
Prerequisites: SOC A101 with a minimum grade of C.
Attributes: UAA Integrative Capstone GER, UAA Intercultural Fluency GER.

Spanish (SPAN)

Courses

SPAN A101 Elementary Spanish I **4 Credits**
Introductory course for students with no previous knowledge of the Spanish language. Develops listening, speaking, reading, and writing skills in Spanish for effective communication at the elementary level. Students gain understanding of basic cross-cultural perspectives. Course conducted in Spanish.
Attributes: UAA Humanities GER.

SPAN A102 Elementary Spanish II **4 Credits**
Continuation of introductory course. Further develops elementary listening, speaking, reading, and writing skills in Spanish for effective communication. Enhances appreciation of cross-cultural perspectives. Course conducted in Spanish.
Prerequisites: SPAN A101 with a minimum grade of D.
Attributes: UAA Humanities GER.

SPAN A201 Intermediate Spanish I **4 Credits**
Intermediate course for students with basic knowledge of Spanish. Enhances listening, speaking, reading, and writing skills for effective communication at the intermediate level. Students critically examine diverse cultural perspectives. Course conducted in Spanish.
Prerequisites: SPAN A102 with a minimum grade of D.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER.

SPAN A202 Intermediate Spanish II **4 Credits**
Continuation of first semester in intermediate Spanish. Further develops listening, speaking, reading, and writing proficiency for effective communication and in preparation for advanced study of Spanish. Students interpret diverse cultural perspectives. Course conducted in Spanish.
Prerequisites: SPAN A201 with a minimum grade of D.
Attributes: UAA Humanities GER, UAA Intercultural Fluency GER.

SPAN A301 Advanced Spanish I **4 Credits**
Advanced Spanish course in refining listening, speaking, reading, writing, and analytical skills for effective interaction in communicatively complex situations. Students critically analyze diverse cultural topics.
Special Note: Course conducted in Spanish.
Registration Restrictions: If prerequisite not met, students can gain entrance to course with departmental approval.
Prerequisites: SPAN A202 with a minimum grade of C.

SPAN A302 Advanced Spanish II **4 Credits**
Continuation of first semester in advanced Spanish. Further refines listening, speaking, reading, writing and analytical skills for effective interaction in communicatively complex situations. Students critically analyze diverse cultural topics.
Special Note: Course conducted in Spanish.
Registration Restrictions: If prerequisite not met, students can gain entrance to course with departmental approval.
Prerequisites: SPAN A301 with a minimum grade of C.

SPAN A310 Selected Topics: Literary Trends and Traditions **3 Credits**
Focuses on diverse literary traditions of multiple Spanish-speaking communities. Critical analysis applied through a variety of disciplinary methodologies (e.g. historical, cultural, artistic). Terminology is explored and developed. Enhances Spanish language skills in writing, reading, speaking, listening and cultural literacy.
Special Note: May be repeated three times for credit with a change of subtitle. Course conducted in Spanish.
Prerequisites: SPAN A302 with a minimum grade of C.

SPAN A320 Studies in Contemporary Hispanic Cultures **3 Credits**
Examines contemporary Hispanic cultures through various media (printed, electronic and audiovisual). Critical analysis through a variety of disciplinary methodologies (e.g., historical, cultural, artistic); terminology also explored and developed. Additionally enhances Spanish language skills in writing, reading, speaking and listening.
Special Note: May be repeated three times for credit with change of subtitle. Course conducted in Spanish.
Prerequisites: SPAN A302 with a minimum grade of C.

SPAN A490 Selected Topics: Hispanic Culture and Civilization **3 Credits**
Focuses on critical analysis of diverse artistic traditions from Spanish-speaking communities using a variety of disciplinary methodologies (e.g., historical, cultural, socio-political) and related terminology. Enhances Spanish language skills in writing, reading, speaking, listening and cross-cultural literacy.
Special Note: Course may be repeated four times for credit with a change of subtitle. Course conducted in Spanish.
Prerequisites: SPAN A302 with a minimum grade of C.

SPAN A490A Selected Topics: Studies in Hispanic Literature and Culture **3 Credits**
Focuses on the intensive study of authors, literary movements, periods and genres in their historical and cultural contexts. Enhances Spanish language skills in reading, listening, writing, speaking and cultural literacy.
Special Note: May be repeated five times for credit with a change of subtitle. Course conducted in Spanish.
Prerequisites: SPAN A302 with a minimum grade of C.

Statistics (STAT)

Courses

STAT A200 Elementary Statistics **3 Credits**
Introduction to concepts and applications of elementary statistical methods. Topics include sampling, data analysis, descriptive statistics, elementary probability, probability and sampling distributions, confidence intervals, hypothesis testing, correlation, and simple linear regression.
Special Note: A student may apply no more than 3 credits from STAT A200 or ECON A227 toward the graduation requirements for a baccalaureate degree.
Prerequisites: MATH A104 with a minimum grade of C or MATH A105 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A211 with a minimum grade of C or MATH A212 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C or ALEKS Overall Test 1 with a score of 055 or ALEKS Overall Test 2 with a score of 055 or ALEKS Overall Test 3 with a score of 055 or ALEKS Overall Test 4 with a score of 055 or ALEKS Overall Test 5 with a score of 055.
Attributes: UAA Quantitative Skills GER.

STAT A253 Applied Statistics for the Sciences **4 Credits**
Intensive survey course with applications for the sciences. Topics include descriptive statistics, probability, random variables, binomial, Poisson and normal distributions, estimation and hypothesis testing of common parameters, analysis of variance for single factor and two factors, correlation, and simple linear regression. A major statistical software package will be utilized.
Registration Restrictions: If prerequisite is not satisfied, an approved UAA placement test is required.
Prerequisites: MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A211 with a minimum grade of C or MATH A212 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C or ALEKS Overall Test 1 with a score of 065 or ALEKS Overall Test 2 with a score of 065 or ALEKS Overall Test 3 with a score of 065 or ALEKS Overall Test 4 with a score of 065 or ALEKS Overall Test 5 with a score of 065.
Attributes: UAA Quantitative Skills GER.

STAT A307 Probability and Statistics **4 Credits**
A calculus-based introduction to probability and statistics with emphasis on scientific applications. Topics include probability, probability distributions for discrete and continuous random variables, joint distributions, mathematical expectation, moment generators, functions of random variables, estimation, and the study of power and significance of hypothesis tests.
Prerequisites: MATH A221 with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C.

STAT A308 Intermediate Statistics for the Sciences **3 Credits**
Establishes familiarity with statistical tools used to analyze data in a variety of disciplines, and provides experience reading and understanding studies based on data analysis. Topics include experimental design, selecting and assessing a model, multiple regression, multifactor analysis of variance, and categorical data analysis. These topics are explored using a major statistical software.
Registration Restrictions: Junior or senior standing and completion of Tier 1 GER courses
Prerequisites: STAT A200 with a minimum grade of C or STAT A253 with a minimum grade of C or STAT A307 with a minimum grade of C.
Attributes: UAA Integrative Capstone GER.

STAT A402 Scientific Sampling **3 Credits**
Sampling methods including simple random, stratified, systematic and cluster sampling. Special emphasis on estimation procedures including ratio and regression methods, and topics selected from allocations, direct sampling, inverse sampling, randomized response sampling, computer simulation of random variates, bootstrap, jackknife, and cross-validation.
Special Note: Not available for credit to students who have completed STAT A602.
Registration Restrictions: Instructor approval
May Be Stacked With: STAT A602
Prerequisites: STAT A200 with a minimum grade of C or STAT A253 with a minimum grade of C or STAT A307 with a minimum grade of C or STAT A308 with a minimum grade of C.

STAT A403 Regression Analysis **3 Credits**
Simple and multiple regression, statistical inferences in regression, matrix formulation of regression, polynomial regression, ridge regression, nonlinear regression and normal correlation models. A major statistical package is used as a tool to aid calculations required for many of the techniques.
Registration Restrictions: Instructor approval
Prerequisites: STAT A308 with a minimum grade of C.

STAT A407 Time Series Analysis **3 Credits**
Decomposition of time series, seasonal adjustment methods and index numbers. Forecasting models, including causal models, trend models and smoothing models. Autoregressive (AR) forecasting models, moving average (MA) forecasting models and integrated (ARIMA) forecasting models. A major statistical package is used as a tool to aid calculations required for many of the techniques.
Special Note: Not available for credit to students who have completed STAT A607.
Registration Restrictions: Instructor approval
May Be Stacked With: STAT A607
Prerequisites: STAT A307 with a minimum grade of C or STAT A308 with a minimum grade of C.

STAT A410 Statistical Methods **3 Credits**
Parametric and nonparametric statistical methods. Topics will include, but not be restricted to, contingency table analysis, goodness-of-fit tests, simple linear and multiple regression, curvilinear regression, logistic regression, design and analysis of single and multifactor experiments, and introduction to multivariate statistics.
Special Note: Not available for credit to students who have completed STAT A610.
Registration Restrictions: Instructor approval
May Be Stacked With: STAT A610
Prerequisites: STAT A253 with a minimum grade of C or STAT A308 with a minimum grade of C.

STAT A411 General Statistics and Regression **3 Credits**
Introduces basic probability and statistics, including density functions, distribution functions, mathematical expectations, and moment generators for discrete and continuous random variables. Introduces regression analysis.
May Be Stacked With: STAT A611
Prerequisites: MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C.

STAT A607 Advanced Time Series Analysis **3 Credits**
Decomposition of time series, seasonal adjustment methods and index numbers. Forecasting models including causal models, trend models and smoothing models. Autoregressive (AR) forecasting models, moving average (MA) forecasting models and integrated (ARIMA) forecasting models. A major statistical package is used as a tool to aid calculations required for many of the techniques.
Special Note: Not available for credit to students who have completed STAT A407. Students will be required to design a research project, analyze its data and write a professional-quality term paper.
Registration Restrictions: Graduate standing or instructor approval
May Be Stacked With: STAT A407

STAT A610 Advanced Statistical Methods **3 Credits**
Parametric and nonparametric statistical methods. Topics will include, but are not restricted to, contingency table analysis, goodness-of-fit tests, simple linear and multiple regression, curvilinear regression, logistic regression, design and analysis of single and multifactor experiments, and introduction to multivariate statistics.
Special Note: Not available for credit to students who have taken STAT A410. Students will be required to design a research project, analyze its data and write a professional-quality term paper.
Registration Restrictions: Graduate standing or instructor approval
May Be Stacked With: STAT A410

STAT A611 General Statistics for Data Science **3 Credits**
Covers general probability and statistics, including density functions, distribution functions, mathematical expectations, and moment generators for discrete and continuous random variables. Covers regression analysis.
Registration Restrictions: Graduate standing or instructor approval
May Be Stacked With: STAT A411

Surgical Technology (SURG)

Courses

SURG A150 Introduction to Surgical Technology **2 Credits**
Introduces the role of the surgical technologist, scope of practice, professionalism, ethics and certification. Includes the responsibilities of the surgical technologist in the context of the organizational structure of health care facilities. Addresses the emotional and physical care of the patient as well as emergency situations and hazards.
Prerequisites: BIOL A111 with a minimum grade of C and BIOL A111L with a minimum grade of C.

SURG A160 Fundamentals of Surgical Technology **2 Credits**
Presents the principles of asepsis, sterile technique, sterilization, and identification of instruments and equipment. Engages in learning to provide care to the patient including pharmacology and anesthesia during the preoperative, intraoperative, and postoperative stages.
Registration Restrictions: Department approval
Corequisites: SURG A160L.

SURG A160L Fundamentals of Surgical Technology Laboratory **4 Credits**
Provides hands-on learning of the principles of asepsis, sterile technique, sterilization, and identification and experiential learning of instruments and equipment required in the surgery setting. Engages in learning to provide care to the patient including pharmacology and anesthesia during the preoperative, intraoperative, and postoperative stages.
Corequisites: SURG A160.

SURG A210 Surgical Procedures I **2 Credits**
Provides theory of common surgical procedures that include diagnostic procedures, minimally invasive applications, general surgery, obstetric and gynecologic surgery, genitourinary surgery, and ophthalmic surgery performed in the operating room by body system with emphasis on knowledge acquisition. Includes surgical anatomy, instrumentation, and pharmacology.
Registration Restrictions: Department approval
Corequisites: SURG A210L.

SURG A210L Surgical Procedures I Laboratory **4 Credits**
Applies theory with lab practice of common surgical procedures that include diagnostic procedures, minimally invasive applications, general surgery, obstetric and gynecologic surgery, genitourinary surgery, and ophthalmic surgery performed in the operating room by body system with emphasis on knowledge acquisition and practical lab application. Includes surgical anatomy, instrumentation, and pharmacology.
Registration Restrictions: Department approval
Corequisites: SURG A210.

SURG A220 Surgical Procedures II **2 Credits**
Provides the theory of common surgical procedures that include otorhinolaryngologic surgery, oral and maxillofacial surgery, plastic and reconstructive surgery, cardiothoracic surgery, peripheral vascular surgery and neurological surgery performed in the operating room by body system with emphasis on knowledge acquisition. Includes surgical anatomy, instrumentation, and pharmacology.
Special Note: This course is a continuation of Surgical Procedures I.
Registration Restrictions: Department approval
Corequisites: SURG A220L.

SURG A220L Surgical Procedures II Laboratory **4 Credits**
Applies theory with lab practice of common surgical procedures that include otorhinolaryngologic surgery, oral and maxillofacial surgery, plastic and reconstructive surgery, cardiothoracic surgery, peripheral vascular surgery and neurological surgery performed in the operating room by body system with emphasis on practical lab application. Includes surgical anatomy, instrumentation, and pharmacology.
Special Note: This course is a continuation of Surgical Procedures I Lab.
Registration Restrictions: Department approval
Corequisites: SURG A220.

SURG A292 Surgical Technology Seminar **1 Credit**
Provides opportunities for discussion and evaluation of experiences in clinical practicum courses. Covers professional practice issues in preparation for the transition to employment.
Special Note: Prepares students for the Certified Surgical Technologist (CST) examination and assists with application submission.
Registration Restrictions: Department approval

SURG A295 Surgical Technology Practicum **11 Credits**
Provides an opportunity for students to apply theories, knowledge and skills in a supervised clinical setting as final preparation for employment in the field. Duties are assigned by UAA instructor in conjunction with clinical personnel in affiliated hospitals and surgery centers.
Registration Restrictions: Department approval

Technology (TECH)

Courses

TECH A110 Graphic Design Fundamentals **3 Credits**
Introduces design fundamentals as applied to desktop publishing, image editing and web design applications to communicate through online or print media.

TECH A111 Digital Imagery **3 Credits**
Introduces the key concepts and practices of digital image creation and editing, including tools, color theory, image file types, filters, layers and image sizing.

TECH A120 Commercial Web Page Development **3 Credits**
Uses responsive, mobile-first design principles to create accessible, cross-device, commercially-oriented web sites using current versions of Hypertext Markup Language (HTML) and Cascading Style Sheets (CSS).

TECH A121 Extensible Markup Language **1 Credit**
Introduces and examines how Extensible Markup Language (XML) is used to store and transport data, as well as how XML is used to define page content found in the web and mobile applications environments.

TECH A125 Web Database Systems **3 Credits**
Teaches commercial-grade database skills needed to create and administer dynamic data-driven sites used in eCommerce and mobile application development.

TECH A170 Apprenticeship Training Level I **1-10 Credits**
This course is designed to award credit for experiential learning and related technical instruction derived from a federally registered apprenticeship program. Training Level I awards credit for the first year of apprenticeship, which is typically 1000 to 2000 hours of supervised field experience depending upon the occupation and requires a minimum of 144 hours of related technical instruction.
Registration Restrictions: Admission to the Associate of Applied Science in Apprenticeship Technologies or the Bachelor of Science in Applied Technologies Leadership, and a Certificate of Apprenticeship Completion issued by the United States Department of Labor

TECH A171 Apprenticeship Training Level II **1-10 Credits**
This course is designed to award credit for experiential learning and related technical instruction derived from a federally registered apprenticeship program. Training Level II awards credit for the second year of apprenticeship, which is typically 2000 to 4000 (cumulative) hours of supervised field experience depending upon the occupation with a minimum of 144 hours of related technical instruction annually. This builds upon the previous years' experience.
Registration Restrictions: Admission to the Associate of Applied Science in Apprenticeship Technologies or the Bachelor of Science in Applied Technologies Leadership, and a Certificate of Apprenticeship Completion issued by the United States Department of Labor

TECH A172 Apprenticeship Training Level III **1-10 Credits**
This course is designed to award credit for experiential learning and related technical instruction derived from a federally registered apprenticeship program. Training Level III awards credit for the third year of apprenticeship, which is typically 4000 to 6000 (cumulative) hours of supervised field experience depending upon the occupation and requires a minimum of 144 hours of related technical instruction.
Registration Restrictions: Admission to the Associate of Applied Science in Apprenticeship Technologies or the Bachelor of Science in Applied Technologies Leadership, and a Certificate of Apprenticeship Completion issued by the United States Department of Labor

TECH A173 Apprenticeship Training Level IV **1-10 Credits**
This course is designed to award credit for experiential learning and related technical instruction derived from a federally registered apprenticeship program. Training Level IV awards credit for the fourth year of apprenticeship, which is typically 6000 to 8000 (cumulative) hours of supervised field experience depending upon the occupation and requires a minimum of 144 hours of related technical instruction.
Registration Restrictions: Admission to the Associate of Applied Science in Apprenticeship Technologies or the Bachelor of Science in Applied Technologies Leadership, and Certificate of Apprenticeship Completion issued by the United States Department of Labor

TECH A222 Client-Side Scripting Languages **3 Credits**
Includes browser architecture, JavaScript data types, anonymous and named functions, event listeners, the Document Object Model (DOM), client-side security concerns, cookies, local storage, Dynamic Hypertext Markup Language (DHTML), Ajax, jQuery and jQuery User Interface (UI).
Prerequisites: CS A109 with a minimum grade of D and TECH A120 with a minimum grade of D.

TECH A227 Server-Side Scripting Languages **3 Credits**
Topics covered include configuring an Apache/MySQL/PHP server suite, GET and POST superglobal variables, includes, generating and displaying result sets, validation of data and system security, using sessions and session variables, building a robust login sequence and a shopping cart, and using a web service.
Prerequisites: CS A109 with a minimum grade of D and TECH A120 with a minimum grade of D.

TECH A230 Mobile Application Programming I **3 Credits**
Covers the application of programming principles in a mobile application development environment.
Prerequisites: CS A109 with a minimum grade of C.

TECH A240 Mobile Application Development I **3 Credits**
Creates efficient, effective, compliant, accessible and well-designed mobile applications using a mobile application development suite.
Prerequisites: TECH A121 with a minimum grade of C and TECH A125 with a minimum grade of C.

TECH A295 Technical Internship **1-6 Credits**
Provides work experience, familiarization with technical operations and equipment and insight to management practices closely related with technology-rich career fields. Work for the internship is supervised by industry and faculty members.
Registration Restrictions: Instructor permission required.

TECH A305 Applied Leadership for Technicians **3 Credits**
Serves as the bridge course in the Bachelor of Science in Applied Technologies Leadership program. Covers principles of career management. Develops leadership perspectives that prepare students to think and act strategically as technical leaders in their organization. Builds leadership capacity for driving business results to deliver customer value.
Prerequisites: (COMM A111 with a minimum grade of C or COMM A235 with a minimum grade of C or COMM A237 with a minimum grade of C or COMM A241 with a minimum grade of C) and (WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C).

TECH A412 Field-Based Study **1-9 Credits**
Provides an opportunity for students to increase mastery in a specific technical discipline using means not otherwise accessible through traditional academic settings. Areas of field-based study may include industry certifications and participation in professional development classes or seminars offered by industry, proprietary schools or government agencies.
Special Note: Students must coordinate with the instructor of the course prior to the semester in which they intend to take the course to discuss their proposed study area.
Registration Restrictions: Faculty approval
Prerequisites: TECH A305 with a minimum grade of C or concurrent enrollment.

TECH A421 Training & Development for Technical Managers **3 Credits**
Focuses on designing training programs that support workforce needs and motivate technical employees to learn, create knowledge, and share knowledge. Includes strategies for designing, delivering, and evaluating trainings and professional development.

TECH A433 Project Design, Implementation and Control **3 Credits**
Provides the foundation for understanding the basic principles of project management methodologies, including how to manage, monitor and control success factors. Examines project management from a leadership and management standpoint. Includes understanding and meeting stakeholder expectations, communicating and working with teams, and solving problems.
Prerequisites: STAT A200 with a minimum grade of C and TECH A305 with a minimum grade of C.

TECH A453 Capstone Project **3 Credits**
Integrates professional, communication and leadership skills with general education knowledge to complete a project related to opportunities, problems or issues in students' career fields or in the community. Requires a written report and oral presentation at the end of the semester.
Special Note: Students meet weekly with faculty advisor and other students in the BS in Applied Technologies Leadership program, but this is an independent study project which requires at least 175 hours of commitment.
Registration Restrictions: Junior or senior standing, faculty approval, and completion of GER Tier 1 (basic college-level skills) courses.
Prerequisites: TECH A305 with a minimum grade of C and TECH A433 with a minimum grade of C.
Attributes: UAA Integrative Capstone GER.

TECH A490 Selected Topics in Technology Management **1-3 Credits**
Provides customized development training in areas related to technology management. Course content is determined by specific industry needs.
Special Note: May be repeated with a change of topic for a maximum of 9 credits.
Registration Restrictions: Faculty approval required.

TECH A495 Technical Internship **1-3 Credits**
Supports supervisory and management practices used in business operations through a work experience internship.
Special Note: Requires at least 75 hours of work internship per credit hour plus additional instructor contact time.
Registration Restrictions: Faculty approval
Crosslisted With: VE A495

Theatre (THR)

Courses

THR A101 Technical Theatre for the Event Technician **1 Credit**
Focuses on event technician and grip skills and is the foundation class for the Occupational Endorsement Certificate in Event Production.
Special Note: Meets and exceeds the standards for the Alaska Center for the Performing Arts (ACPA) grip test.

THR A102 Introduction to Sewing and Wardrobe **1 Credit**
Introduces basic hand and machine sewing skills including wardrobe and run crew skills/techniques. Allows students to apply skills as they prepare for work as wardrobe technicians for local companies and touring professional productions.

THR A103 Lighting and Beginning Programming **2 Credits**
Explores the theory, practice and execution of lighting for theatre, dance, or event production. Includes associated electric effects for the stage and introduces control board programming and additional materials as necessary.

THR A105 Audio and Sound Engineering for Event Production **2 Credits**
Explores the theory, practice and execution of audio for theatre, dance, or event production. Includes an introduction to sound engineering and system set-up for the stage and event production. Introduces control board set-up/programming and provides additional material on related fields as necessary.

THR A107 Rigging and Fly Crew **1 Credit**
Explores the theory, practice and execution of theatrical rigging for event production. Includes a focus on fly system mechanics and running crew fundamentals and provides additional material on related fields as necessary.

THR A109 Carpentry and Props for Event Production **1 Credit**
Explores the theory, practice and execution of carpentry and props as they relate to event production. Focuses on shop safety, basic hand and stationary tools, dance floor installation, and running crew fundamentals. Provides additional material on related fields as necessary.

THR A111 Theatre Appreciation **3 Credits**
Survey of theatre with focus on artists who contribute to theatrical production viewed within the context of historical styles and development.
Attributes: UAA Fine Arts GER.

THR A121 Fundamentals of Acting **3 Credits**
Introduces students to the basics of acting for the stage. Students will study acting theory and explore core elements of performance and apply them through exercises, improvisation, monologues, scene study, and script and character analysis.
Attributes: UAA Fine Arts GER.

THR A124 Dance for Musical Theatre I **2 Credits**
Introduces the vocabulary, variety of movement styles and performance techniques inherent in American musical theatre, including the ability to vocalize correctly during movement. Covers a range of time periods from the 1920s to the present.
Special Note: May be repeated for a maximum of 8 credits.
Crosslisted With: DNCE A124.

THR A131 Theatrical Production Techniques **3 Credits**
Introduction to the mechanics of stage production. Emphasizes safe and practical use of tools, equipment and materials employed in scene shop, lighting, backstage and costume work. Students master basic practices and techniques required for effective production work in each area.

THR A132 Introduction to Theatrical Design **3 Credits**
Introduces the basic elements of design and color theory combined with an overview of figure drawing, rendering techniques and script analysis.

THR A141 Stagecraft I **3 Credits**
Introduces principles and techniques of contemporary theatrical production, including technical direction, drafting, scenery construction and rigging.
Special Note: This course includes lab time.

THR A157 Introduction to Costume Sewing **3 Credits**
Introduces basic hand and machine sewing skills and demonstrates pattern use and beginning draping. These skills will be applied as students participate in the build of a realized theatrical production.
May Be Stacked With: THR A357

THR A195 Theatre Practicum: Performance **1-3 Credits**
Requires participation in mainstage productions as an actor, director, dancer, choreographer or assistant director.
Special Note: Can be repeated with a change of project for up to 9 credits.
Registration Restrictions: Department approval
May Be Stacked With: THR A395

THR A211 Theatre History to 1700 **3 Credits**
Studies theatre history from ancient Greece to 1700 including the history and the influence of different cultures, traditions and technology on the development of the theatre as a social institution.
Attributes: UAA Humanities GER.

THR A212 Theatre History Since 1700 **3 Credits**
Surveys theatre history from 1700 to the present day, including both Western and Eastern theatre and performance.
Attributes: UAA Humanities GER.

THR A215 Contemporary Plays **3 Credits**
Surveys various examples of play texts from 1800 to today, focusing on their historical context and production both in their own time and today.
Attributes: UAA Fine Arts GER.

THR A221 Movement for the Actor **3 Credits**
Studies movement and its specific relationship to acting skills. Work includes analysis of nonverbal communication and developmental physical skills.
Prerequisites: THR A121 with a minimum grade of C.

THR A222 Voice for the Actor **3 Credits**
Introduces the acting student to exercises designed to free and increase the expressive power of the voice, with the primary goal being emotional honesty.
Prerequisites: THR A121 with a minimum grade of C.

THR A243 Scene Design **3 Credits**
Introduces principles of scenic design for the stage including drafting, rendering, theory, analysis and practice.
Special Note: This course includes lab time.
Prerequisites: THR A131 with a minimum grade of C.

THR A257 Costume Design **3 Credits**
Teaches principles of costume design with emphasis on historic research and rendering techniques. Overall study of costume and fashion history and its relation to theatre productions and designs.
Registration Restrictions: Sophomore, junior or senior standing

THR A295 Theatre Practicum: Technical **1-3 Credits**
Provides opportunity for participation in mainstage productions as member of technical staff. Offers credit for scene crew, light crew, props, costume crew, makeup crew, stage management, and publicity.
Special Note: May be repeated for a maximum of 12 credits.
May Be Stacked With: THR A495

THR A306 Stage Management **3 Credits**
Explores the role and function of the stage manager in theatrical production. Provides the basic skills to work in the field of stage management. Emphasis on organization, documentation, and dissemination of information.
Prerequisites: THR A131 with a minimum grade of D.

THR A315 Playwriting **3 Credits**
Focuses on analyzing and writing dramatic scripts for live performance. Course will feature public readings of student work.
Prerequisites: THR A215 with a minimum grade of C.

THR A325 Theatre Speech and Dialects **3 Credits**
Continues the production and energizing of vowels and consonants. Covers the International Phonetic Alphabet as well as a systematic approach for the acquisition of a foreign dialect based on tempo/rhythm, facial posture, pitch range, resonance focus, lilt pattern, topography, history, and national character.
Prerequisites: THR A222 with a minimum grade of C.

THR A328 Acting Shakespeare **3 Credits**
Pursues an intensive exploration of text-based analysis of Shakespearean characters. Emphasis on scene and character study in a studio setting.
Prerequisites: THR A221 with a minimum grade of C and THR A222 with a minimum grade of C.

THR A329 Combat for the Stage **3 Credits**
Introduces the art of fighting in the theatre including basic techniques from among the following combat disciplines: unarmed, quarterstaff, single rapier, rapier and dagger, or broadsword. Emphasis is placed on safety and acting the fight as well as the effective illusion of violence.
Prerequisites: THR A221 with a minimum grade of C.

THR A331 Directing I **3 Credits**
Studies the history, theories and methods of stage direction. Culminates in the staging of a scene from a dramatic work.
Prerequisites: THR A121 with a minimum grade of C and THR A215 with a minimum grade of C.

THR A347 Lighting Design **3 Credits**
Explores the theory and practice of the design and execution of lighting and associated electrical effects for the stage. Focuses on theatrical lighting with additional material on related fields.
Prerequisites: THR A131 with a minimum grade of C and THR A132 with a minimum grade of C.

THR A350 Costume Crafts **3 Credits**
Introduces the creation of theatrical costume props. Craft artisans work with challenging materials and solve unique projects on a daily basis. Provides hands-on experience with millinery, mask-making, leather-working, jewelry-making, dying and more.
Special Note: May be taken twice for credit.
Prerequisites: THR A131 with a minimum grade of C.

THR A357 Costume Construction **3 Credits**
Advanced work in costume construction, including developing essential sewing techniques, gaining knowledge of draping and pattern alteration, and completion of a finished theatrical garment.
Special Note: May be repeated once for credit. This course includes lab time.
May Be Stacked With: THR A157
Prerequisites: THR A131 with a minimum grade of C.

THR A395 Advanced Practicum: Performance **1-3 Credits**
Performance practicum for advanced participation in mainstage productions as an actor, director, dancer, choreographer or assistant director.
Special Note: May be repeated with a change of project for up to 9 credits.
Registration Restrictions: Department approval
May Be Stacked With: THR A195

THR A411R Theatre History Recitation I **1 Credit**
Recitation session which provides theatre majors with a deeper discussion and analysis of topics in the theatre history course.
Registration Restrictions: Admission to the Bachelor of Arts in Theatre
Corequisites: THR A211.

THR A412R Theatre History Recitation II **1 Credit**
Recitation session which provides theatre majors with a deeper discussion and analysis of topics in the theatre history course.
Registration Restrictions: Admission to the Bachelor of Arts in Theatre
Corequisites: THR A212.

THR A450 Resume and Portfolio Workshop **1 Credit**
Prepares students for finding work as theatre professionals or in applying to graduate school programs. Includes finding appropriate graduate school and internship/apprenticeship/job opportunities, assembling resumes and CVs, writing cover letters and/or personal statements, creating personal websites and/or portfolios, and preparing for professional interviews/auditions.
Special Note: May be repeated once for credit.
Registration Restrictions: Junior or senior standing

THR A490 Advanced Topics in Theatre **3 Credits**
Presents advanced, current topics in theatrical performance, design or technology that address special demands of the theatre season or special faculty expertise.
Special Note: May be repeated three times for credit with a change of subtitle.
Prerequisites: THR A121 with a minimum grade of C and THR A131 with a minimum grade of C and THR A215 with a minimum grade of C.

THR A492 Seminar in Theatre or Dance **3 Credits**
Explores a specific topic in theatre or dance - including the historical, cultural, social and political influences on the given aspect of performance or production - with an emphasis on its relevance to a contemporary audience.
Special Note: May be repeated once for credit with a change in subtitle.
Registration Restrictions: Junior or senior standing and completion of GER Tier 2 Fine Arts, Humanities and Social Sciences requirements
Prerequisites: THR A111 with a minimum grade of C or THR A121 with a minimum grade of C or THR A131 with a minimum grade of C or DNCE A121 with a minimum grade of C or DNCE A170 with a minimum grade of C or DNCE A262 with a minimum grade of C and (WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C or WRTG A2W with a minimum grade of C).
Attributes: UAA Integrative Capstone GER, UAA Intercultural Fluency GER.

THR A495 Advanced Practicum: Technical **1-3 Credits**
Technical practicum for juniors and seniors or students with an extensive background in the subject area. Emphasis is on participation in a mainstage production as a significant member of the technical/production crew or design team.
Special Note: May be repeated with change of project for 12 credits.
Registration Restrictions: Permission of instructor
May Be Stacked With: THR A295
Prerequisites: THR A295 with a minimum grade of D.

THR A498 Individual Research **3 Credits**
Provides guidance on independent research projects leading to a research paper and/or a design/directing process document. Scholarly interaction with theatre production(s) is strongly encouraged.
Registration Restrictions: Junior or senior standing, admission to the Bachelor of Arts in Theatre, and department approval

THR A499 Thesis **3 Credits**
Provides structure for an independent or collaborative research project on a specific topic or area of theatre culminating in the presentation of a live theatre performance or design execution.
Registration Restrictions: Junior or senior standing, admission to the Bachelor of Arts in Theatre, and department approval
Prerequisites: THR A498 with a minimum grade of B.

Undergraduate Research & Scholarship (URS)

Courses

URS A121 Methods of Inquiry **3 Credits**
Introduces students to the ways that knowledge is both discovered and generated in multiple disciplines. Covers the tools and study of the different means, materials, methods, nature and ethics of academic inquiry. Teaches skills and techniques in critical thinking, empirical and quantitative analysis, qualitative analysis, investigation, problem solving, learning, and research appropriate to the acquisition of knowledge in varying fields of study. Teaches introductory grant-writing skills.
Prerequisites: WRTG A111 with a minimum grade of C or WRTG A1W with a minimum grade of C.
Attributes: UAA Social Sciences GER.

URS A188 Research & Scholarship Foundations **1 Credit**
Prepares students who are exploring Undergraduate Research to be effective mentees. Focuses on the knowledge and issues that facilitate research success and sense of belonging but that are often left implicit in other courses and mentored experiences.
Special Note: This 11-week class begins week 3 of the semester. Course is ideally taken alongside a lower-division course that qualifies for experiential-research units for Honors in Research. Requires college-level communication skills (i.e. placement into 100-level writing and oral communications classes) but no substantive background. Intended for students who are early in their studies to explore whether and how undergraduate research might fit with their academic and career interests.

URS A388A Developing a Scholarly Identity I **1 Credit**
Supports students who are engaged in a formal Undergraduate Research experience. Focuses on the knowledge and issues that facilitate research and research-related career success and sense of belonging but that are often left implicit in other courses and mentored experiences. Emphasis is on navigating the culture of research.
Special Note: Course should be taken alongside engagement in a formal research experience under the mentorship of a UAA faculty member. Students should anticipate identifying their mentor and project when class begins. Students are encouraged to take both URS A388A and URS A388B, but they may be taken independently or out of sequence.

URS A388B Developing a Scholarly Identity II **1 Credit**
Supports students who are engaged in a formal Undergraduate Research experience. Focuses on the knowledge and issues that facilitate research and research-related career success and sense of belonging but that are often left implicit in other courses and mentored experiences. Emphasis is on dissemination of research findings.
Special Note: Course should be taken alongside engagement in a formal research experience under the mentorship of a UAA faculty member. Students should anticipate identifying their mentor and project when class begins. Students are encouraged to take both URS A388A and URS A388B, but they may be taken independently or out of sequence.
Prerequisites: WRTG A111 with a minimum grade of C or WRTG A1W with a minimum grade of C.

University Studies (UNIV)

Courses

UNIV A110 Career Exploration **1 Credit**
Examines a wide range of career opportunities for students. Provides a framework for exploring and discovering interests and skills, to help them better answer the question, "What do I want to do with my life?". Provides tools and resources for making both academic and career decisions that incorporate their individual needs.

UNIV A120 Online Success **2 Credits**
Covers the basics of online learning strategies, what to expect in online classes, how to succeed in an online environment, and how to navigate a range of online platforms regularly utilized in higher education.

UNIV A150 Strategies for College Success **3 Credits**
Welcomes and introduces students to college and university study at UAA. The course enhances habits of mind and strategies for college success, introduces students to available academic and campus resources, and guides them to develop academic and professional plans. Through the course, students will gain ownership of their educational experience while also being integrated into the UAA community.

UNIV A190 Selected Topics in University Studies **1-3 Credits**
Introduces topics related to student success and designed to support progress toward completion of academic goals.
Special Note: May be repeated for credit with a change of subtitle for a maximum of 6 credits.

Veterinary Assisting (VETT)

Courses

VETT A101 Introduction to the Veterinary Profession **1 Credit**
Introduction to the veterinary profession for individuals considering a career in this field. Introduces responsibilities and expectations as well as legal boundaries of a veterinary health care team.

VETT A103 Veterinary Office Procedures **3 Credits**
Provides the student with current information in veterinary practice office management. Students will apply concepts, principles, and skills to situations specific to veterinary office procedures.
Prerequisites: VETT A101 with a minimum grade of D or concurrent enrollment.

VETT A122 Basic Handling and Behavior: Small Animals **2 Credits**
Introduces general topics in the veterinary field: small-animal breeds and behavior, safe animal handling and restraint, grooming, nutrition, and vaccination. Additional topics include exam room procedures (physical exam and history taking), facility maintenance, medicating, surgical assisting, and laboratory assisting.
Prerequisites: VETT A101 with a minimum grade of D or concurrent enrollment.

VETT A123 Basic Handling and Behavior: Large Animals **2 Credits**
Introductory course for students considering a career in large-animal health care. Introduces large-animal nutrition, care, behavior, and restraint, including working safely with large animals.
Prerequisites: VETT A101 with a minimum grade of D or concurrent enrollment.

VETT A124 Introduction to Small Animals **3 Credits**
Introductory course for students considering a career in small-animal health care. Topics include an introduction to restraint, clinical pathology, diagnostic imaging, emergency medicine, anesthesia, pharmacology and pain management, surgical and medical nursing, dentistry, and other applicable skills.
Prerequisites: VETT A101 with a minimum grade of D or concurrent enrollment.

VETT A125 Introduction to Large Animals **3 Credits**
Introductory course for students considering a career in large-animal health care. Introduces clinical patient management and procedures, laboratory procedures, anesthesia, pharmacology, and surgical and medical nursing specific to large animal species.
Prerequisites: VETT A101 with a minimum grade of D or concurrent enrollment.

VETT A201 Veterinary Anatomy and Physiology **4 Credits**
Introduces comparative anatomy and physiologic processes for both small- and large-animal species. Includes lecture and lab components.
Prerequisites: VETT A103 with a minimum grade of C or concurrent enrollment.

VETT A295 Veterinary Assistant Practicum **3 Credits**
Provides practical experience in a workplace setting. The faculty, practicum supervisor, and student collaborate to achieve workplace training to reflect the student's occupational objectives.
Special Note: Students must have the strength and flexibility to be able to move/restrain/lift animals and supplies, endurance to stand for extended periods of time, sufficient vision and hearing to assess the condition of patient, and dexterity to perform the fine motor skills and procedures.
Registration Restrictions: Admission to the Occupational Endorsement Certificate in Veterinary Assisting
Prerequisites: VETT A122 with a minimum grade of C and VETT A123 with a minimum grade of C and VETT A124 with a minimum grade of C and VETT A125 with a minimum grade of C and VETT A201 with a minimum grade of C.

Veterinary Technology (VTCH)

Courses

VTCH A101 Introduction to Veterinary Technology **1 Credit**
Introduces the veterinary profession to individuals pursuing a career in the field. Introduces responsibilities and expectations as well as legal boundaries of a veterinary health care team. Emphasizes the application of professional ethics and laws in veterinary medicine and professional development.
Registration Restrictions: Admission to the Associate of Applied Science in Veterinary Technology

VTCH A102 Veterinary Medical Terminology **1 Credit**
Introduces veterinary medical terminology for common clinically recognizable diseases, operations, systems, and procedures, as well as common medical abbreviations and colloquial vocabulary.
Registration Restrictions: Admission to the Associate of Applied Science in Veterinary Technology

VTCH A110 Medical Calculations for Veterinary Technicians **1 Credit**
Emphasizes mathematical fundamentals necessary for a veterinary technician. Reviews basic mathematical functions and applies them to medical calculations clinically important to veterinary technicians. Focuses on medical calculations: dosages, drip rates, concentrations, and other drug administration information.
Registration Restrictions: Admission to the Associate of Applied Science in Veterinary Technology
Prerequisites: MATH A105 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A211 with a minimum grade of C or MATH A212 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C or ALEKS Overall Test 1 with a score of 055 or ALEKS Overall Test 2 with a score of 055 or ALEKS Overall Test 3 with a score of 055 or ALEKS Overall Test 4 with a score of 055 or ALEKS Overall Test 5 with a score of 055.

VTCH A111 Veterinary Office Procedures and Hospital Management **3 Credits**
Develops skills veterinary practices utilize in a modern veterinary facility, including communication skills for office procedures; front office procedures; client services and education; breed and species identification and considerations; and personal grooming and professional attire. Emphasizes professional development and application of ethics and law in veterinary medicine.
Registration Restrictions: Admission to the Associate of Applied Science in Veterinary Technology
Prerequisites: VTCH A101 with a minimum grade of B and VTCH A102 with a minimum grade of C.

VTCH A112 Veterinary Anatomy and Physiology **3 Credits**
Covers the fundamentals of domestic animal anatomy and physiology using a systems approach with a focus on anatomical structures of clinical importance to veterinary technicians.
Registration Restrictions: Admission to the Associate of Applied Science in Veterinary Technology
Prerequisites: VTCH A102 with a minimum grade of C.
Corequisites: VTCH A112L.

VTCH A112L Veterinary Anatomy and Physiology Laboratory **1 Credit**
Applies a hands-on approach to learning the fundamentals of domestic animal anatomy and physiology by major organ system utilizing dissection specimens, models, experiments, and other laboratory tools and supplies as needed. Focuses on anatomical structures of clinical importance to veterinary technicians.
Registration Restrictions: Admission to the Associate of Applied Science in Veterinary Technology
Prerequisites: VTCH A102 with a minimum grade of C.
Corequisites: VTCH A112.

VTCH A113 Veterinary Nursing Skills **3 Credits**
Introduces personal safety and techniques for handling and restraining dogs and cats. Discusses critical thinking and technical skills required to perform physical examination, resuscitation, medication of animals, collection of laboratory specimens, application of bandages, venipuncture, and intravenous catheter placement.
Registration Restrictions: Admission to the Associate of Applied Science in Veterinary Technology
Prerequisites: VTCH A102 with a minimum grade of C.
Corequisites: VTCH A113L.

VTCH A113L Veterinary Nursing Skills Laboratory **1 Credit**
Applies personal safety and techniques for handling and restraining dogs and cats. Emphasizes critical thinking and the technical skills of physical examination, resuscitation, medication of animals, collection of laboratory specimens, application of bandages, venipuncture, and intravenous catheter placement.
Registration Restrictions: Admission to the Associate of Applied Science in Veterinary Technology
Prerequisites: VTCH A102 with a minimum grade of C.
Corequisites: VTCH A113.

VTCH A120 Pharmacology for Veterinary Technicians **2 Credits**
Develops pharmaceutical skills and knowledge of common drugs and medications veterinary technicians use in the modern veterinary facility. Emphasizes classes of drugs, their use, potential side effects and contraindications, calculating drug dosages, administration and dispensation of drugs and medications, legal issues, and record keeping.

Registration Restrictions: Admission to the Associate of Applied Science in Veterinary Technology
Prerequisites: VTCH A110 with a minimum grade of C.

VTCH A121 Small Animal Medicine **3 Credits**
Introduces the topics of small animal health and disease for dogs and cats. Covers preventive medicine and specific disease processes commonly encountered in veterinary practice and clinically relevant to veterinary technicians. Addresses vaccination protocols and nutrition.
Registration Restrictions: Admission to the Associate of Applied Science in Veterinary Technology
Prerequisites: VTCH A113 with a minimum grade of C.

VTCH A122 Veterinary Surgical Nursing **3 Credits**
Covers nursing fundamentals used in common surgical procedures. Includes procedural management and instrument identification, care, and use. Emphasizes asepsis, surgical assistance, and patient management.
Registration Restrictions: Admission to the Associate of Applied Science in Veterinary Technology
Prerequisites: VTCH A113 with a minimum grade of C.
Corequisites: VTCH A122L.

VTCH A122L Veterinary Surgical Nursing Laboratory **1 Credit**
Applies nursing fundamentals used in common surgical procedures. Includes procedural management and instrument identification, care, and use. Emphasizes asepsis, surgical assistance, and patient management.
Registration Restrictions: Admission to the Associate of Applied Science in Veterinary Technology
Prerequisites: VTCH A113L with a minimum grade of C.
Corequisites: VTCH A122.

VTCH A130 Applied Small Animal Behavior I **1 Credit**
Introduces natural history and developmental behavior of dogs and cats, principles of learning theory, and practical applications to behavior modification. Applies specific behavior modification techniques to developing written client education handouts.
Registration Restrictions: Admission to the Associate of Applied Science in Veterinary Technology
Prerequisites: VTCH A121 with a minimum grade of C.

VTCH A195 Clinical Externship I **3 Credits**
Provides guided learning experience in a veterinary clinical setting. Applies veterinary technology theory and skills acquired during the first year of VTCH courses.
Special Note: Requires 45 hours of work experience for each credit (135 approved hours).
Registration Restrictions: Admission to the Associate of Applied Science in Veterinary Technology
Prerequisites: VTCH A120 with a minimum grade of C and VTCH A121 with a minimum grade of C and VTCH A122 with a minimum grade of C and VTCH A122L with a minimum grade of C and VTCH A130 with a minimum grade of C and VTCH A223 with a minimum grade of C and VTCH A223L with a minimum grade of C and VTCH A231 with a minimum grade of C and VTCH A232 with a minimum grade of C and VTCH A232L with a minimum grade of C and VTCH A233 with a minimum grade of C and VTCH A233L with a minimum grade of C.

VTCH A223 Veterinary Microbiology and Parasitology **3 Credits**
Introduces clinical veterinary microbiology and parasitology, zoonotic diseases, and veterinary public health.
Registration Restrictions: Admission to the Associate of Applied Science in Veterinary Technology
Prerequisites: VTCH A112 with a minimum grade of C.
Corequisites: VTCH A223L.

VTCH A223L Veterinary Microbiology and Parasitology Laboratory **1 Credit**
Applies the fundamentals of specimen collecting, handling, and testing in clinical veterinary microbiology and parasitology, zoonotic diseases, and veterinary public health.
Registration Restrictions: Admission to the Associate of Applied Science in Veterinary Technology
Prerequisites: VTCH A112L with a minimum grade of C.
Corequisites: VTCH A223.

VTCH A231 Veterinary Diagnostic Imaging and Dentistry **2 Credits**
Introduces theory and principles of diagnostic imaging and dentistry techniques used in veterinary medicine. Discusses safe procedures for producing quality radiographs. Examines dentistry evaluation, diagnostics, and prophylaxis in small animals.
Registration Restrictions: Admission to the Associate of Applied Science in Veterinary Technology
Prerequisites: VTCH A121 with a minimum grade of C.
Corequisites: VTCH A231L.

VTCH A231L Veterinary Diagnostic Imaging and Dentistry Laboratory **1 Credit**
Applies theories and principles of diagnostic imaging and dentistry techniques used in veterinary medicine. Uses safe procedures for producing quality radiographs. Employs learned dentistry techniques for performing dental evaluations, diagnostics and prophylaxes in small animals.
Registration Restrictions: Admission to the Associate of Applied Science in Veterinary Technology
Prerequisites: VTCH A121 with a minimum grade of C.
Corequisites: VTCH A231.

VTCH A232 Veterinary Anesthesia and Analgesia **3 Credits**
Provides in-depth knowledge of anesthesia techniques, including identification and use of anesthetic-related drugs and equipment.
Registration Restrictions: Admission to the Associate of Applied Science in Veterinary Technology
Prerequisites: VTCH A122 with a minimum grade of C.
Corequisites: VTCH A232L.

VTCH A232L Veterinary Anesthesia and Analgesia Laboratory **1 Credit**
Applies in-depth knowledge of anesthesia techniques, including identification and use of anesthetic-related drugs and equipment.
Registration Restrictions: Admission to the Associate of Applied Science in Veterinary Technology
Prerequisites: VTCH A122L with a minimum grade of C.
Corequisites: VTCH A232.

VTCH A233 Veterinary Clinical Pathology **3 Credits**
Covers hematology, cytology, blood chemistry, serology, and urinalysis. Describes in-depth procedures for performing diagnostic tests and collecting, handling, and evaluating specimens.
Registration Restrictions: Admission to the Associate of Applied Science in Veterinary Technology
Prerequisites: VTCH A223 with a minimum grade of C.
Corequisites: VTCH A233L.

VTCH A233L Veterinary Clinical Pathology Laboratory **1 Credit**
Applies concepts in hematology, cytology, blood chemistry, serology, and urinalysis.
Registration Restrictions: Admission to the Associate of Applied Science in Veterinary Technology
Prerequisites: VTCH A223L with a minimum grade of C.
Corequisites: VTCH A233.

VTCH A240 Applied Small Animal Behavior II **1 Credit**
Expands on principles of animal learning theory and behavior modification techniques.
Registration Restrictions: Admission to the Associate of Applied Science in Veterinary Technology
Prerequisites: VTCH A130 with a minimum grade of C.

VTCH A241 Laboratory and Exotic Animal Medicine **2 Credits**
Discusses unique husbandry issues, handling and restraining, gender determination, reproduction, nutrition, common diseases, and clinical and surgical procedures pertaining to common laboratory and exotic animal species.
Registration Restrictions: Admission to the Associate of Applied Science in Veterinary Technology
Prerequisites: VTCH A121 with a minimum grade of C.
Corequisites: VTCH A241L.

VTCH A241L Laboratory and Exotic Animal Medicine Laboratory **1 Credit**
Applies techniques for care, handling, restraining, feeding, gender determination, and performing clinical and surgical procedures for common laboratory and exotic animals.
Registration Restrictions: Admission to the Associate of Applied Science in Veterinary Technology
Prerequisites: VTCH A121 with a minimum grade of C.
Corequisites: VTCH A241.

VTCH A242 Large Animal Medicine and Clinical Procedures **2 Credits**
Discusses common large animal species and their unique husbandry issues, handling and restraining, reproduction, nutrition, common diseases, and clinical and surgical procedures.
Registration Restrictions: Admission to the Associate of Applied Science in Veterinary Technology
Prerequisites: VTCH A231 with a minimum grade of C.
Corequisites: VTCH A242L.

VTCH A242L Large Animal Medicine and Clinical Procedures Laboratory **1 Credit**
Applies techniques for care, reproductive management, disease prevention, handling, restraining, feeding, and performing clinical and surgical procedures for common large animals.
Registration Restrictions: Admission to the Associate of Applied Science in Veterinary Technology
Prerequisites: VTCH A231L with a minimum grade of C.
Corequisites: VTCH A242.

VTCH A243 Career Success for Veterinary Technicians **1 Credit**
Develops professionalism, critical thinking tools, interpersonal skills, and professional ethics for success as a veterinary technician.
Registration Restrictions: Admission to the Associate of Applied Science in Veterinary Technology
Prerequisites: VTCH A195 with a minimum grade of C.

VTCH A244 Veterinary Technician National Exam Preparation **1 Credit**
Describes and applies study strategies and test-taking skills for successfully completing the Veterinary Technician Nation Exam (VTNE). Reviews applicable VTCH curricula and practice tests.
Registration Restrictions: Admission to the Associate of Applied Science in Veterinary Technology
Prerequisites: VTCH A195 with a minimum grade of C.

VTCH A295 Clinical Externship II **3 Credits**
Combines veterinary clinical skills with theoretical knowledge to complete student preparation for licensure and employment opportunities after graduation.
Special Note: Requires 45 hours of work experience for each credit (135 approved hours).
Registration Restrictions: Admission to the Associate of Applied Science in Veterinary Technology
Prerequisites: VTCH A195 with a minimum grade of C.

Vocational Education (VE)

Courses

VE A495 Technical Internship **1-3 Credits**
Supports supervisory and management practices used in business operations through a work experience internship.
Special Note: Requires at least 75 hours of work internship per credit hour plus additional instructor contact time.
Registration Restrictions: Faculty approval
Crosslisted With: TECH A495

Welding Technology (WELD)

Courses

WELD A101 Introduction to Welding **3 Credits**
Introduces basic principles of welding and thermal cutting. Covers oxyacetylene welding (OAW), brazing, and silver soldering. This course is divided between OAW, gas metal arc welding (GMAW), and shielded metal arc welding (SMAW) processes.

WELD A102 Gas Welding **2 Credits**
Develops basic oxy-acetylene welding, brazing, and cast iron welding skills, emphasizing hands-on class assignments.
May Be Stacked With: WELD A103 and WELD A104

WELD A103 Arc Welding **4 Credits**
Provides training and hands-on experience required for structural steel plate welding certification. Students certify on 0.375 inch plate, open root or with backing, at ASME or AWS code standards.
May Be Stacked With: WELD A102 and WELD A104

WELD A104 Arc Welding: Low-Hydrogen Electrodes **4 Credits**
Develops skills and techniques required for low-hydrogen electrode welder certification, emphasizing hands-on experience. Students certify on 0.375 inch plate with backing, to AWS code standards.
Registration Restrictions: Arc welding experience can substitute for prerequisites.
May Be Stacked With: WELD A102 and WELD A103
Prerequisites: WELD A101 with a minimum grade of D or WELD A103 with a minimum grade of D.

WELD A105 Pipe Welding **4 Credits**
Develops skills and techniques for pipe welding, all positions, open root, uphill and downhill using ANSI Schedule 40 steel pipe sizes of 4-6 inch.
Registration Restrictions: Current certification of plate, open root, vertically upward, or pre-test during registration.
May Be Stacked With: WELD A106
Prerequisites: WELD A103 with a minimum grade of D and WELD A104 with a minimum grade of D.

WELD A106 Pipe Certification **4 Credits**
Develops skills required for pipe welding, all positions, open root, uphill and downhill using 6 inch Schedule 80 steel pipe, and certify on 6 inch Schedule 80 uphill procedure, ANSI B31 3 code standard.
May Be Stacked With: WELD A105
Prerequisites: WELD A105 with a minimum grade of D.

WELD A112 Shielded Metal Arc Welding (SMAW) **4 Credits**
Introduces the welding of mild steels with covered electrodes. Includes welding safety, electric arc welding equipment, electrode identification and selection, basic joint design, and welding practices on carbon steel plate.

WELD A114 Welding of High Strength Steels **3 Credits**
Continues shielded metal arc welding (SMAW) techniques and applications. Also introduces the welding of high strength steels with covered electrodes. Includes welding safety, low alloy electrode selection, welding joint design, and alloy steel specifications.
Corequisites: WELD A112.

WELD A117 Pipe Fabrication **4 Credits**
Presents theory and practice for the layout and assembly of piping offsets and pipe spool assemblies common to the oil and gas industry.
Prerequisites: (MATH A105 with a minimum grade of C or MATH A115 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A251F with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A252F with a minimum grade of C or MATH A253 with a minimum grade of C) and WELD A112 with a minimum grade of C.

WELD A121 Pipe Welding Vertical-Down SMAW **4 Credits**
Builds on knowledge and techniques covered in WELD A112. Introduces vertical-down shielded metal arc welding (SMAW) techniques on carbon steel pipe using EXX 10 electrodes. Includes information on pipe material specifications, pipe fittings and assembly, welder qualification and American Petroleum Institute (API) Standard 1104 requirements.
May Be Stacked With: WELD A122
Prerequisites: WELD A112 with a minimum grade of C and WELD A114 with a minimum grade of C.

WELD A122 Pipe Welding Vertical-Up SMAW **4 Credits**
Builds on knowledge and techniques covered in WELD A121. Introduces vertical-up shielded metal arc welding (SMAW) on carbon and alloy steel pipe using EXX 10 and EXX18 electrodes. Includes information on high-strength alloy pipe specifications and weld/welder evaluation/qualifications defined in ASME IX and ANSI/ASME B31.3.
Registration Restrictions: Instructor approval
May Be Stacked With: WELD A121
Prerequisites: WELD A121 with a minimum grade of C.

WELD A157 Technical Drawings for Welders **3 Credits**
Provides instruction on proper reading and interpretation of industrial blueprints commonly used in the construction and petroleum industries. Covers terminology, welding symbols, processes and their applications, including alphabet of lines, orthographic and isometric drawings, piping, standard and ISO measuring devices and dimensioning, scaling, structural materials, industry standards, and computer-aided drafting principles.
Prerequisites: MATH A055 with a minimum grade of C or MATH A105 with a minimum grade of C or MATH A115 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C or MATH A152 with a minimum grade of C or MATH A155 with a minimum grade of C or MATH A221 with a minimum grade of C or MATH A251 with a minimum grade of C or MATH A252 with a minimum grade of C or MATH A253 with a minimum grade of C.

WELD A161 Gas Metal Arc Welding (GMAW) **3 Credits**
Introduces gas metal arc welding (GMAW) techniques for joining a number of metals. Includes information on power supplies, wire feed equipment, shielding gases, filler metal selection, and electrical characteristics of the arc.

WELD A162 Flux Cored Arc Welding (FCAW) **3 Credits**
Builds on knowledge and techniques covered in WELD A112 or WELD A161. Introduces theory and practice of FCAW using self-shielded and dual-shielded wire processes. Covers physics of metal transfer, electrical characteristics of power supplies, wire feeders, and filler metal selection and storage.
Prerequisites: WELD A112 with a minimum grade of C or WELD A161 with a minimum grade of C.

WELD A174 Gas Tungsten Arc Welding (GTAW) **3 Credits**
Builds on knowledge and techniques covered in WELD A112. Introduces gas tungsten arc welding (GTAW) techniques for joining a number of metals. Includes information on power supplies, torches, inert gases, filler metal selection and electrical characteristics of the arc.
Prerequisites: WELD A112 with a minimum grade of C or WELD A161 with a minimum grade of C.

WELD A190 Selected Topics in Welding Technology **1-4 Credits**
Presents relevant topics and techniques in the field of welding and fabrication.
Special Note: May be repeated for credit with change of subtitle.
Prerequisites: WELD A101 with a minimum grade of D.

WELD A207 Industrial Welding Qualification **2 Credits**
Provides opportunity for experienced welding students to study, practice and demonstrate mastery of one or more specific technical welding methods leading to national industrial welding qualification. Each student will be evaluated on an individual basis derived from the student's professional objectives.
Registration Restrictions: Prequalification welding test.

WELD A295 Welding & Nondestructive Testing Internship **1-3 Credits**
Provides experience in selected industry settings for students nearing completion of a program in the Welding & Nondestructive Testing Technology Department at UAA.
Special Note: Course may be repeated for a maximum of 3 credits. Students required to provide all personal protective equipment (PPE) and related workplace supplies required by the employer for the position. No more than one credit per two-week period will be awarded.

Registration Restrictions: A minimum of 12 credits completed of advisor-approved Welding & Nondestructive Testing Technology courses with a minimum GPA of 2.5 or higher. Enrollment is restricted to admitted majors in the Welding & Nondestructive Testing Technology program. Instructor approval required.

Women's & Gender Studies (WSGS)

Courses

WSGS A100 Social Inclusion and Equity **1 Credit**
Leads students through a series of interactive exercises and conversations to assist them in identifying and understanding the impact of mistreatment, oppression (both externalized and internalized), and oppressive behaviors on identity. Introduces students to skills that can empower them to become more effective leaders and allies for others.
Special Note: This class is exclusively taught by National Coalition Building Institute (NCBI) trained facilitators.

WSGS A101 Why Pronouns Matter **1 Credit**
Discusses the social construction of gender, and the significance of correct pronoun use in creating inclusive environments. Shares tools and resources to build more inclusive environments.

WSGS A200 Introduction to Women's and Gender Studies **3 Credits**
Introduces students to the fundamental concepts and themes in the interdisciplinary study of women and gender. Course focuses on understanding institutions, social and political practices, and cultural representations that shape women's lives in both the developed and developing worlds as well as examining the role that gender plays in society.
Attributes: UAA Intercultural Fluency GER, UAA Social Sciences GER.

WSGS A201 Introduction to Gender and Sexuality Studies **3 Credits**
Asks questions such as "What is gender?" "What is sexuality?" "Why do studying gender and sexuality matter?" Challenges the "commonsense" notions that we have about these categories. Upends our ideas about gender and sexuality by introducing foundational concepts and readings from the interdisciplinary fields of feminist and queer studies.
Attributes: UAA Intercultural Fluency GER, UAA Social Sciences GER.

WSGS A252 Women, Gender and Social Action **3 Credits**
Examines the evolving role of women and gender in contemporary organizations and social movements with an emphasis on leadership.
Crosslisted With: SOC A252
Prerequisites: SOC A101 with a minimum grade of C or WSGS A200 with a minimum grade of C.

WSGS A290 Selected Topics in Women's and Gender Studies **3 Credits**
Focuses on current topics related to Women's and Gender studies.
Special Note: May be repeated once with a change of subtitle.

WSGS A355 Women and Gender in Politics **3 Credits**
Examines the roles of women and gender in the political world from local, state, national and international perspectives. Studies the nature of political roles of women and additional gender identities from both historical and contemporary perspectives.
Crosslisted With: PS A355
Prerequisites: PS A101 with a minimum grade of C or PS A102 with a minimum grade of C or WSGS A200 with a minimum grade of C.

WSGS A400 Feminist and Gender Theories **3 Credits**
Examines the interdisciplinary historical and contemporary feminist and gender theories.
Prerequisites: WSGS A200 with a minimum grade of C.

WSGS A401 Seminar in Women's and Gender Studies **3 Credits**
Discusses issues related to women's and gender studies. Content varies every semester.
Special Note: May be repeated once with a change of subtitle.
Prerequisites: WSGS A200 with a minimum grade of C.

WSGS A495 Internship in Women's Studies **3 Credits**
An opportunity for students to apply the subject matter of women's studies to the practical life of the community.
Special Note: Internships vary; may be repeated once for credit with a different internship.
Prerequisites: WSGS A200 with a minimum grade of D.

Writing (WRTG)

Courses

WRTG A080 Basic Writing & Reading **3-4 Credits**
Introduces college writing and reading skills. Develops sentences, paragraphs and short essays. Introduces strategies for effective revision. Enhances reading comprehension and vocabulary for academic reading.

Registration Restrictions: Appropriate score on placement test or departmental approval.

WRTG A090 Writing & Reading Strategies **3-4 Credits**
Develops college writing and reading strategies. Reviews sentence and paragraph structure as part of the development of essays. Emphasizes revision techniques for essays and critical reading in academic texts.
Registration Restrictions: If prerequisite is not satisfied, appropriate score on placement test or departmental approval is required.
Prerequisites: WRTG A080 with a minimum grade of C or (Accuplacer-Reading Comp with a score of 050 and Accuplacer-Sentence Skills with a score of 060) or Accuplacer-Sum AASS + AARC with a score of 110 or (Accuplacer NG Writing with a score of 235 and Accuplacer NG Reading with a score of 235) or Accuplacer NG AAWR + AARE with a score of 470.

WRTG A092 English Skills Lab **1-2 Credits**
Provides individualized and/or group instruction to improve basic reading and writing skills for academic purposes. Focuses on skill development to increase vocabulary and to improve reading comprehension & fluency, grammar, punctuation, and word choice. Includes guided practice in reading strategies and incorporates writing strategies for revising, editing, and proofreading.
Registration Restrictions: Appropriate score on English placement test or departmental approval.

WRTG A110 Introduction to College Writing **3 Credits**
Introduces students to reading and writing processes used in community and academic settings.
Registration Restrictions: If prerequisite is not satisfied, appropriate score on placement test or department approval is required.
Prerequisites: WRTG A090 with a minimum grade of C or (Accuplacer-Reading Comp with a score of 065 and Accuplacer-Sentence Skills with a score of 075) or Accuplacer-Sum AASS + AARC with a score of 140 or (Accuplacer NG Writing with a score of 250 and Accuplacer NG Reading with a score of 250) or Accuplacer NG AAWR + AARE with a score of 500 or Enhanced ACT English with a score of 18 or Enhanced ACT Sum EAEN + EARE with a score of 30 or EVIDENCE-BASED READ/WRIT SCORE with a score of 430.

WRTG A111 Writing Across Contexts **3 Credits**
Guides students through a range of writing experiences to build reading and writing practices that are robust, reflective, and responsive to audience and context.
Prerequisites: WRTG A110 with a minimum grade of C or (Accuplacer-Reading Comp with a score of 080 and Accuplacer-Sentence Skills with a score of 090) or Accuplacer-Sum AASS + AARC with a score of 170 or (Accuplacer NG Writing with a score of 265 and Accuplacer NG Reading with a score of 265) or Accuplacer NG AAWR + AARE with a score of 530 or Enhanced ACT English with a score of 22 or Enhanced ACT Sum EAEN + EARE with a score of 36 or EVIDENCE-BASED READ/WRIT SCORE with a score of 480.
Attributes: UAA Written Communication GER.

WRTG A192 Accelerated Learning Program **2 Credits**
Provides support for WRTG A111 in a group setting.
Special Note: This is part of the Accelerated Learning Program.
Registration Restrictions: WRTG A192 is a co-requisite support course linking an Accelerated Learning Program section to a WRTG A111 section. Eligibility is determined by the Department of Writing and requires the completion of a contract signed by an advisor.
Corequisites: WRTG A111.

WRTG A211 Writing and the Humanities **3 Credits**
Introduces what writing is and does and how people learn to do it in the humanities, with a focus on the disciplinary questions, methods and reasoning that shape the genres and writing practices in the field.
Prerequisites: WRTG A111 with a minimum grade of C or WRTG A1W with a minimum grade of C or WRTG A2W with a minimum grade of C or WRTG A3W with a minimum grade of C or EVIDENCE-BASED READ/WRIT SCORE with a score of 610 or Enhanced ACT English with a score of 30.
Attributes: UAA Written Communication GER.

WRTG A212 Writing and the Professions **3 Credits**
An introduction to what writing is and does and how people learn to do it in the professions, with a focus on the disciplinary questions, methods and reasoning that shape the genres and writing practices in the field.
Registration Restrictions: If prerequisite is not satisfied, appropriate SAT, ACT or AP scores or approved UAA placement test is required.
Prerequisites: WRTG A111 with a minimum grade of C or WRTG A1W with a minimum grade of C or WRTG A2W with a minimum grade of C or WRTG A3W with a minimum grade of C or EVIDENCE-BASED READ/WRIT SCORE with a score of 610 or Enhanced ACT English with a score of 30.
Attributes: UAA Written Communication GER.

WRTG A213 Writing and the Sciences **3 Credits**
An introduction to what writing is and does and how people learn to do it in the sciences, with a focus on the disciplinary questions, methods and reasoning that shape the genres and writing practices in the field.
Prerequisites: WRTG A111 with a minimum grade of C or WRTG A1W with a minimum grade of C or WRTG A2W with a minimum grade of C or WRTG A3W with a minimum grade of C or EVIDENCE-BASED READ/WRIT SCORE with a score of 610 or Enhanced ACT English with a score of 30.
Attributes: UAA Written Communication GER.

WRTG A214 Arguing Across Contexts **3 Credits**
Instruction and practice in written research-supported arguments for a variety of audiences, with an emphasis on rhetorical strategies across a variety of public and academic contexts.
Prerequisites: WRTG A111 with a minimum grade of C or WRTG A1W with a minimum grade of C or WRTG A2W with a minimum grade of C or WRTG A3W with a minimum grade of C or EVIDENCE-BASED READ/WRIT SCORE with a score of 610 or Enhanced ACT English with a score of 30.
Attributes: UAA Written Communication GER.

WRTG A280 Introduction to Grant Writing **1-3 Credits**
Introduces grant writing, with a focus on locating funding sources, networking with community partners and potential funders, and drafting, revising, and submitting grant proposals.
Registration Restrictions: Completion of prerequisite or instructor approval
Prerequisites: WRTG A111 with a minimum grade of C or WRTG A1W with a minimum grade of C or WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C or WRTG A2W with a minimum grade of C or Enhanced ACT English with a score of 30 or EVIDENCE-BASED READ/WRIT SCORE with a score of 610.

WRTG A290 Selected Topics in Writing **1-3 Credits**
Explores a range of topics and strategies relevant to writers who will write in public and professional contexts.
Prerequisites: WRTG A111 with a minimum grade of C or WRTG A1W with a minimum grade of C.

WRTG A295 Internship in Community or Professional Writing **1-6 Credits**
Offers opportunity to explore career options in community or professional writing early in students' degree path. Provides mentored, experience-based learning opportunities to apply writing knowledge, skills, and strategies while working with community partners. Enables students to transfer classroom concepts to workplace settings and develop applied writing skills.
Special Note: May be repeated for a maximum of 6 credits.
Prerequisites: WRTG A111 with a minimum grade of C or WRTG A1W with a minimum grade of C or WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C or WRTG A2W with a minimum grade of C or WRTG A3W with a minimum grade of C or EVIDENCE-BASED READ/WRIT SCORE with a score of 610 or Enhanced ACT English with a score of 30.

Faculty

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Faculty and Academic Administrators

A

Aamodt, Duwain, D. Term Instructor, Welding Technology, Kenai Peninsula College.
Community College of the Air Force, A.A.S. (2000).

Abaza, Osama A. Professor, Civil Engineering, College of Engineering.
University of Toledo, B.S. (1983), M.S. (1984); Brigham Young University, Ph.D. (1994).

Abdihodzic, Armin. Professor, Music, College of Arts and Sciences.
William Carey University, B.M. (2007); East Carolina University, M.M.A. (2009); University of North Texas, Denton, D.M.A. (2013).

Adeniran, Ibrahim Ademola. Post Doctoral Fellow, Geomatics, College of Engineering.
Federal University of Technology Akure, BTech (2015), MTech (2023); Hong Kong Polytechnic University, Ph.D. (2024).

Aguiniga, Donna M. Assistant Dean, School of Social Work. Professor, Social Work, College of Health.
Eastern New Mexico University, B.S. (1998); Boise State University, M.S.W. (2001); University of Texas at Austin, Ph.D. (2010).

Ahmadi, Sayed Ali Reza. Assistant Professor, Writing, Kenai Peninsula College.
Balkh University, B.A. (2011); Indiana University of Pennsylvania, M.A. (2020), Ph.D. (2024).

Aldrich, Carrie L. Associate Professor, Writing, Community and Technical College.
Indiana University, B.A./B.S. (2003); University of Alaska Fairbanks, M.A. (2007); University of Iowa, Ph.D. (2018).

Al-Kire, Rosemary L. Assistant Professor, Psychology, College of Arts and Sciences.
Northern Arizona University, B.S. (2015), M.A. (2018); Baylor University, Ph.D. (2022).

Alevy, Jonathan E. Associate Professor, Economics, College of Business and Public Policy.
Northwestern University, B.S. (1995); University of Maryland College Park, M.S. (2001), Ph.D. (2006).

Allen, Mary Dallas. Professor, Social Work, College of Health.
The College of William and Mary, B.S. (1995); Virginia Commonwealth University, M.S.W. (2001); Portland State University, Ph.D. (2008).

Amore, Martha J. Term Associate Professor, Writing, Community and Technical College.
University of Michigan, B.A. (1992); University of Alaska Anchorage, M.F.A. (2009); University of Alaska Fairbanks, Ph.D. (2020).

Amstislavski, Phillippe. Professor, Public Health, College of Health.
Moscow College of Nursing, B.S.N. (1989); Rensselaer Polytechnic Institute, M.Arch. (2003); Yale University, M.E.M. (2004); City University of New York, Ph.D. (2012).

Andersen, Angela S. Term Instructor, Writing, Community and Technical College.
Brigham Young University, B.A. (1981); University of Nevada Las Vegas, M.A. (1990).

Andrews, Eric. Associate Professor, Mathematics, College of Arts and Sciences.
Grand Valley State University, B.S. (2004); Miami University, M.A. (2009); Western Michigan University, Ph.D. (2014).

Anteau, Daniel J. Professor, Theatre, College of Arts and Sciences.
University of Anchorage, B.A. (1996); University of Illinois, M.F.A. (1999).

Anthony, Raymond X. Professor, Philosophy, College of Arts and Sciences.
Millikin University, B.A. (1994); Purdue University, M.A. (1998), Ph.D. (2003).

Archer Olsen, Katie. Associate Professor, Early Childhood Education, Kenai Peninsula College.
University of Alabama at Birmingham, B.S. (1995); University of Alaska Southeast, M.A.T. (2012); American College of Education, Ed.D. (2023).

Arnell, David C. Term Assistant Professor, Architectural Engineering Technology, Community and Technical College.
University of Alaska Anchorage, B.S. (2022).

Arnegard, Iver O. Term Assistant Professor, Writing, Matsu College.
University of Montana, B.A. (1999); University of Alaska Fairbanks, M.F.A. (2005); Ohio University, Ph.D. (2009).

Arnold, Elizabeth. Professor, Journalism and Public Communication, College of Arts and Sciences.
Colgate University, B.A. (1992).

Aschoff, Jennifer L. Professor, Geology, College of Arts and Sciences.
Montana State University, B.S. (2000); New Mexico State University, M.S. (2003), University of Texas Austin, Ph.D. (2008).

Averyt, Stephanie. Term Clinical Instructor, Nursing, College of Health.
University of Texas, Arlington, B.N. (2017).

B

Bahari, Nasim. Term Assistant Professor, Project Management College of Engineering.
University of Science and Technology, B.Sc. (2004); ParisTech, M.Sc. (2011); Telecom Paris, Ph.D. (2018).

Bailey, Marsha A. Term Assistant Professor, Certified Nursing Aide, College of Health.
University of Alaska Anchorage, A.A.S (2015), B.A. (1988).

Ball, Rachael (Ray). Vice Provost, Student Success. Professor, History, College of Arts and Sciences.
University of Oklahoma, B.A. (2003); The Ohio State University, M.A. (2004), Ph.D. (2010).

Baker, Keri L. Assistant Professor, Nursing, College of Health.
Central Washington University, B.A. (2001); University of Bradford, U.K., M.S. (2005); University of Rochester, B.S.N. (2011); Georgetown University, M.S.N. (2015).

Baldiviez, Jenna. Term Assistant Professor, Early Childhood & Teaching, School of Education
University of Alaska Anchorage, B.A. (2009), M.Ed. (2018).

Ballain, Craig E. Library Director, Matsu College. Professor, Library Science, Matanuska-Susitna College.
Washington State University, Pullman, B.A. (1992); Indiana University, Bloomington, M.L.S. (1997).

Banchero, Paola. Professor, Journalism and Public Communication, College of Arts and Sciences.
Trinity University, B.A. (1992); Northwestern University, M.S. (1993); Benedictine College, M.B.A. (2000).

Banks, Harry L. Term Instructor, Network Technology, Matanuska-Susitna College.
Columbia Union College, B.A. (1967); Andrews University, M.Div. (1969); Pittsburgh Theological Seminary, D.Min. (1985).

Bateman, Pierce. Term Assistant Professor, History, College of Arts and Sciences.
University of Alaska Anchorage, B.A. (2016); University of Alaska Fairbanks, M.A. (2022).

Bauer, Stephanie. Associate Professor, Philosophy, College of Arts and Sciences.
Pacific Lutheran University, B.A. (1995); Washington University, M.A. (2002), Ph.D. (2008).

Beam, Sarah A. Term Assistant Professor, Medical Education, WWAMI, College of Health.
The Ohio State University, B.S. (2020), Ph.D. (2024).

Bennett, Megan. Term Assistant Professor, Speech Language Pathology, College of Health.
University of Pittsburgh, B.A. (2011); State University of New York at New Paltz, M.S. (2015).

Berberich, Deidre R.S. Associate Professor, Accounting, Matanuska-Susitna College.
Kansas State University, Manhattan, B.S. (1984), M.A. (1985).

Berman, Matthew D. Professor, Economics, ISER, College of Business and Public Policy.
University of Wyoming, B.S. (2010), Ph.D. (2015).

Bernard, Jennifer D. Term Assistant Professor, General Business, Matanuska-Susitna College.
Alaska Pacific University, B.A. (2006), M.B.A. (2011); Walden University, Ph.D. (2020).

Berry, Kevin C. Professor, Economics, College of Business and Public Policy.
Harvard College, B.A. (1972); Yale University, M.A. (1974), Ph.D. (1977).

Berry, Nathan T. Term Assistant Professor, Medium/Heavy Vehicle Technology, Community and Technical College.
University of Alaska Anchorage, A.A.S. (2019), B.S. (2019).

Bhattacharyya, Nalinaksha. Professor, Finance, College of Business and Public Policy.
North Eastern Hill University, India, B.S. (1977); Indian Institute of Management, India, M.B.A. (1986); University of British Columbia, Ph.D. (2000); University of Calcutta, Ph.D. (2008).

Bishop, Amanda M. Assistant Professor, Biological Sciences, College of Arts and Sciences.
Northern Michigan University, B.Sc. (2009); Duke University, M.E.M. (2011); Durham University, U.K., Ph.D. (2015).

Bjartmarsdottir, Anna. Professor, Library Science, Consortium Library.
University of Stockholm, B.A. (1994); State University of New York, M.L.I.S. (2003).

Blackmon, Ginger L. Professor, Educational Leadership, School of Education.
San Diego State University, B.S., M.A.; University of San Diego, Ed.D. (2007).

Bock, Amy L. Term Clinical Instructor, Nursing, College of Health.
Northern Illinois University, B.S. (1991); Benedictine University, M.S. (2000).

Boege-Tobin, Deborah D. Professor, Biology, Kenai Peninsula College.
University of Illinois, B.S. (1991); Florida Atlantic University, M.S. (1994); University of Missouri-St Louis, Ph.D. (2005).

Bortz, Eric. Associate Professor, Biological Sciences, College of Arts and Sciences.
Carnegie Mellon University, B.A. (1994); University of California, Lost Angeles, Ph.D. (2006).

Bourne, Douglass A. Term Associate Professor, Writing, Community and Technical College.

Augustana College, B.A. (2002); Western Illinois University, M.A. (2006); University of North Carolina, Wilmington, M.F.A. (2009).

Bowden, Michael L. Term Instructor, Construction Technology, Prince William Sound College.

Bowie, David. Professor, English, College of Arts and Sciences.
University of Maryland College Park, B.A. (1994); University of Pennsylvania, Ph.D. (2000).

Brandhuber, Monica E. Post Doctoral Fellow, Chemistry, College of Arts and Sciences.
Colorado State University, B.S. (2016), M.S. (2017); University of Alaska Fairbanks, Ph.D. (2023).

Brannon, Page L. Professor, Library Science, Consortium Library.
Mary Washington College, B.S. (1988); The Catholic University of America, M.S. (2000).

Brenner, Cecilia E. Associate Professor, Nursing, College of Health.
Lower Columbia College, A.A.S.; Chamberlin College of Nursing, M.S.N.

Briggs, Brandon. Professor, Biological Sciences, College of Arts and Sciences.
Idaho State University, B.S. (2003), M.S. (2007); Oregon State University, Ph.D. (2011).

Brissette, Morgan A. Assistant Professor, Nursing, College of Health.
University of Natal, Durban, B.Sc. (1993); University of Hawaii Honolulu, M.S. (1999); University of Maryland Baltimore, D.N.P. (2018).

Brock, David. Term Assistant Professor, Geomatics, College of Engineering.
University of Cincinnati, B.S. (2002); University of Alaska Anchorage, B.S. (2016).

Brock, Jennifer M. Associate Dean of Academics, CoENG. Professor, Mechanical Engineering, College of Engineering.
The Ohio State University, B.S. (2003), M.S. (2005), Ph.D. (2009).

Brown, Barbara E. Professor, Counseling, Kodiak College.
University of Wisconsin, La Crosse, B.S. (1998), M.S. (2002).

Brown, Joshua C. Term Assistant Professor, Auto Diesel Technology, Community and Technical College.
University of Alaska Anchorage, A.A.S. (2019).

Brown, Riza L.V. Term Associate Professor, Culinary Arts, Community and Technical College.
University of Alaska Anchorage, B.A. (2012).

Brown-Chidsey, Rachel. Associate Professor, Psychology, College of Arts and Sciences.
Whitman College, B.A. (1987); Smith College, M.A.T. (1991); University of Massachusetts, M.A. (1989), Ph.D. (2000).

Buckingham, Sara. Associate Professor, Psychology. College of Arts and Sciences
University of Northern Colorado, B.A. (2010); University of Maryland Baltimore County, M.A. (2013), Ph.D. (2017).

Buie, Sue. Term Assistant Professor, Biology, Kodiak College.
Medical College of Virginia, M.S. (1996); University of St. Augustine, Ph.D. (2003).

Bune, Marisa C. Assistant Professor, Nursing, College of Health.
University of Texas at Arlington, B.S.N. (2010), M.S.N. (2013); Bradley University, M.S.N. (2018).

Burke, Bonnie N. Term Assistant Professor, Nursing, College of Health.
University of New Hampshire, B.A. (2018), M.N. (2021).

Burke, Tracey K. Professor, Social Work, College of Health.
Villanova University, B.A. (1989); University of Minnesota, M.S.W. (1994); University of Washington, Ph.D. (2003).

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The Pennsylvania State University, B.A. (2006); Drexel University, M.S. (2008).

C

Caballero, Andrea. Term Assistant Professor, Medical Education, WWAMI, College of Health.
Loyola University, B.S. (2007); Louisiana State University School of Medicine, M.D. (2012).

Calhoun, Evangelia (Lia) I. Associate Professor, English, Kenai Peninsula College.
Seattle Pacific University, B.A. (2005); Boston University, M.A. (2010), Ph.D. (2016).

Calhoun, Matthew E. Executive Director, Alaska Native Science and Engineering Program (ANSEP). Associate Professor, Civil Engineering, College of Engineering.
University of Alaska Anchorage, B.S. (2002); University of Colorado at Boulder, M.S. (2010); University of Alaska Fairbanks, Ph.D. (2015).

Callison, Kori R. Professor, Human Resources Management, College of Business and Public Policy.
San Diego State University, B.A. (2007); University of Houston, M.A. (2010), Ph.D. (2012).

Campagna, Michael F. Term Assistant Professor, Justice, College of Health.
Pennsylvania State University, B.A. (2006), B.A. (2006), M.A. (2009); Washington State University, Ph.D. (2017).

Campbell, Jennifer B. Assistant Professor, Nursing, College of Health.

University of Connecticut, B.S. (2008); University of Hartford, M.S. (2014).

Campbell, Samuel J. Term Assistant Professor, English, Prince William Sound College.

Concordia University-St. Paul, B.A. (2012); Boise State University, M.F.A. (2018).

Cannatelli, Claudia. Assistant Professor, Geology, College of Arts and Sciences.
University of Rome, M.S. (2003); Virginia Polytechnic Institute and State University, M.S. (2006); University of Naples, Ph.D. (2007).

Cao, Yong. Professor, Marketing, College of Business and Public Policy.
Northwest University, M.Sc. (1989); University of Alaska Anchorage, M.B.A. (1996); University of Iowa, Ph.D. (2002).

Carle, Daria O. Professor, Library Science, Consortium Library.
East Texas State University, B.S. (1978); University of Wisconsin, Madison, M.A. (1989).

Carlson, Erik M. Professor, Library Science, Consortium Library.
University of Southern California, B.M. (2002); Yale University/ Drexel University, M.M./M.L.S. (2004/2010); University of Southern California, D.M.A. (2008).

Carlson, Matthew L. Director, Alaska Center for Conservation Science. Professor, Biological Sciences, College of Arts and Sciences.
Willamette University, B.S. (1994); University of Alaska Fairbanks, Ph.D. (2002).

Carrothers, LeeAnne. Assistant Dean, School of Preventive and Therapeutic Sciences. Associate Professor, Physical Therapist Assistant, College of Health.
University of California, Davis, B.S. (1984); University of Southern California, Los Angeles, M.S. (1986); California Graduate Institute, Ph.D. (1996).

Case, Martin. Assistant Professor, Aviation Technology, Community and Technical College.
American University, B.A. (1984).

Cason, Jacqueline E. Professor, Writing, Community and Technical College.
University of North Carolina, Charlotte, B.A. (1984); University of Arkansas, Fayetteville, M.A. (1989), Ph.D. (1997); University of Alaska Anchorage, M.A.T (1999).

Castle, Shane D. Term Associate Professor, Writing, Community and Technical College.
University of Washington, B.A. (2002); University of Alaska Anchorage, M.F.A. (2004).

Causey, Douglas. Professor, Biological Sciences, College of Arts and Sciences.
University of California, B.S. (1974); University of Arizona, M.S. (1980), Ph.D. (1982).

Chamard, Sharon E. Professor, Justice, College of Health.
Saint Mary's University, B.A. (1993); Rutgers University, M.A. (1997), Ph.D. (2003).

Chapman, Katherine A. Term Clinical Instructor, Nursing, College of Health.
University of Alaska Anchorage, B.S.N. (2017).

Chase, Yvonne M. Professor, Human Services, College of Health.
Loyola University, B.S.; Howard University, M.S.W.; Norfolk State University, Ph.D. (2009).

Chilson, David. Associate Professor, Air Traffic Control, Community and Technical College.
Community College of the Air Force, A.A.S. (1988); Embry Riddle Aeronautical University, B.S. (1999), M.Ed. (2012).

Chlupach, Melissa A. Term Associate Professor, Dietetics and Nutrition, College of Health.
University of Idaho, B.S. (1999), B.S. (2003), M.S. (2001).

Chung, Thomas Pu. Associate Professor, Art, College of Arts and Sciences.
San Francisco Art Institute, B.F.A. (2010); Yale University, M.F.A. (2013).

Clark, Ariane R.C. Term Assistant Professor, Early Childhood Education, Kodiak College.
University of Maine at Farmington, B.S. (2007); University of Alaska Southeast, M.A.T. (2022).

Claw, Christina A. Term Instructor, Nursing, College of Health.
Grand Canyon University, B.S. (2015).

Cochran, Grant R.P. Professor, Voice, College of Arts and Sciences.
Trinity College, B.A. (1984); Yale University, M.M. (1990), M.M.A. (1992), D.M.A. (1997).

Coffey, Holly A. Term Assistant Professor, Kinesiology and Exercise, College of Health.
Utah Valley University, B.S. (2008); California State University, Long Beach, M.S. (2010).

Coffman, Leah M. Assistant Professor, Nursing, College of Health.
University of Oklahoma, B.S.N. (2003); University of Alaska Anchorage, M.S. (2011), D.N.P. (2025).

Cokgor, Ilkan. Term Assistant Professor, Electrical Engineering, College of Engineering.
Middle East Technical University, Anakara, B.S. (1989); King's College, University of London, M.S. (1990), Ph.D. (1993).

Colburn, Judson S. Assistant Professor, Nursing, College of Health.
University of Alabama at Birmingham, B.S.N. (2009); University of Alabama, M.N. (2019).

Colton-Jones, Jennifer M. Term Instructor, Communication, Kodiak College.
Eastern Oregon University, B.A.; Gonzaga University, M.A.

Condon, Joel J. Professor, Architectural and Engineering Technology, Community and Technical College.
University of California, Berkeley, B.A.; University of New Mexico, M.Arch. (1999).

Conti, Michael. Term Instructor, Photography, College of Arts and Sciences.

University of Alaska Anchorage, B.F.A. (2000); Lesley University College of Art and Design, M.F.A. (2010).

Cook, Samuel A. Associate Professor, Mathematics, College of Arts and Sciences.
Reed College, B.A. (1992); Colorado State University, M.S. (1995); Oregon State University, Ph.D. (2009).

Cosgrave, Margaret Hatty. Assistant Professor, Library Science, Consortium Library.
Le Moyne College, B.A. (2017); Syracuse University, M.L.I.S. (2018).

Coulter, Cathy A. Professor, Elementary Education, School of Education.
Lewis and Clark College, B.A. (1988); Arizona State University, M.Ed. (1998), Ph.D. (2003).

Courtney, Ralph E. Professor, Library Science, Consortium Library.
University of Alaska, Anchorage, B.A. (1982); University of Illinois, Urbana-Champaign, M.S. (1991).

Couturier, Christine S. Term Associate Professor, Biological Sciences, College of Arts and Sciences.
University of Poitiers, B.Sc. (1999); University of Quebec, M.Sc. (2003); University de La Rochelle, Ph.D. (2007).

Crawford Debra L. Term Instructor, Quantitative Studies, Community and Technical College.
Colorado State University, B.S. (1982).

Cremer, Ishmael A. Interim Assistant Dean, CTC. Term Assistant Professor, Aviation Technology, Community and Technical College.
Florida Institute of Technology, B.S. (2009), Ph.D. (2015); King Abdullah University of Science and Technology, M.S. (2010).

Cross, Amy B. Post Doctoral Fellow, Economics, College of Business and Public Policy.
University of Colorado at Boulder, B.A. (2015); American University, M.A. (2021), Ph.D. (2025).

Crowell, Caroline E. Term Instructor, Library Science, Consortium Library.
Kenyon College, B.A. (2011); University of British Columbia, M.L.S. (2014).

Cruz Erisman, Morgan. Term Assistant Professor, Social Work, College of Health.
University of Alaska Fairbanks, B.A. (2015); University of Alaska Anchorage, M.P.H., M.S.W. (2018).

Cubit, Buffie A. Assistant Professor, Nursing, College of Health.
Purdue University Global, B.S. (2021), M.S.N. (2022).

Cuellar, Matthew J. Associate Professor, Social Work, College of Health.
University of Alabama, B.S.W. (2011), M.S.W. (2013); University of Tennessee, Ph.D. (2016).

Cullin, Matthew J. Professor, Mechanical Engineering, College of Engineering.
Lehigh University, B.S. (2006), Ph.D. (2009).

D

Dalrymple, Thomas A. Associate Professor, Accounting, Kenai Peninsula College.
Loyola University, B.S. (1978); Arizona State University, J.D. (1998).

David, Eric John R. Professor, Psychology, College of Arts and Sciences.
University of Alaska Anchorage, B.A. (2002); University of Illinois, M.A. (2004), Ph.D. (2007).

Davis, Dacia A. Term Assistant Professor, Social Work, College of Health.
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Meiji Gakuin University, Tokyo, B.A. (1988); Middlebury Institute of International Studies at Monterey, M.A. (1999); Louisiana State University, Ph.D. (2018).

Shimizu, Rei. Assistant Professor, Social Work, College of Health.
Bryn Mawr College, B.A. (2010); Columbia University, M.S. (2012); New York University, Ph.D. (2021).

Shiryayev, Oleg V. Associate Professor, Mechanical Engineering, College of Engineering.
Wright State University, B.Sc. (2002), M.Sc. (2003), Ph.D. (2008).

Shull, Kathryn M. Term Clinical Instructor, Nursing, College of Health.
University of Alaska Anchorage, A.A.S. (2015); Western Governors University, B.S. (2019), M.S.N. (2024).

Siddique, Kamran. Term Assistant Professor, Computer Science, College of Engineering.
University of the Punjab, B.S. (1999); Arid University, M.C.S. (2002); University of Engineering and Technology, Pakistan, M.S. (2009); Dongguk University, Ph.D. (2019).

Siemers, Cheryl K. Interim Chancellor. Professor, English, Kenai Peninsula College.
Cedarville University, B.A. (1993); University of Alaska Anchorage, M.A. (1996); Indiana University of Pennsylvania, Ph.D. (2004).

Sidgman, Juergen. Assistant Professor, Accounting, College of Business and Public Policy.
Universidad Metropolitana de Ciencias de la Educacion, B.S. (1992); Universidad Diego Portales, B.A. (1998); University of Nebraska Kearney, M.B.A. (2001); University of Nebraska Lincoln, Ph.D. (2009).

Sinclair, Katherine M. Term Assistant Professor, History, College of Arts and Sciences.
University of Texas at Austin, B.A. (2014); Columbia University, M.A. (2015); Paris 1 Panthéon-Sorbonne, M.A. (2016).

Smith, Curtis A. Director of Research and Evaluation, Center for Human Development. Term Assistant Professor, Human Services, College of Health.
University of New York at Geneseo, B.A. (1987); University of Illinois, M.S. (1990); Duke University, Ph.D. (2006).

Smith, Gerad M. Assistant Professor, Anthropology, College of Arts and Sciences.
University of Montana Missoula, B.A. (2008); University of Alaska Fairbanks, M.A. (2012), Ph.D. (2020).

Smith, Kelly J. Associate Professor, Automotive Technology, Community and Technical College.
University of Alaska, Anchorage, B.S. (2004), M.S. (2013).

Smith, Timothy C. Professor, Music, College of Arts and Sciences.
University of Washington, Seattle, B.A. (1978), B.M. (1978); Juilliard, M.M. (1980); University of New York Stony Brook, D.M.A. (1985).

Smith, Vianne. Assistant Professor, Nursing, College of Health.
University of Alaska Anchorage, A.A. (2007); Florida Hospital College of Health Sciences, A.A.S. (2009); Adventist University of Health Sciences, B.N. (2013); Kaplan University, M.N.Ed. (2016).

Song, Christopher. Assistant Professor, Music, College of Arts and Sciences.
University of Houston, B.M. (2015); University of Michigan, M.M. (2021); Louisiana State University, Ph.D. (2024).

Soper, Michael. Term Assistant Professor, Quantitative Studies, Community and Technical College.
University of Alaska Anchorage, B.S. (2002); Texas A&M University, M.S. (2011).

Spatz, Ronald M. Professor, Creative Writing and Literary Arts, College of Arts and Sciences.
University of Iowa, B.A. (1971), M.F.A. (1973).

Spiers, Kent G. Term Assistant Professor, Anthropology, College of Arts and Sciences.
University of Alaska Anchorage, B.A. (2012); Lakehead University, Canada, M.A. (2014); University of Calgary, Ph.D. (2024).

Srinivasan, Raghu. Associate Professor, Mechanical Engineering, College of Engineering.
CECRI, Karaikudi India, B.Tech. (2002); University of Hawaii at Manoa, M.S. (2005), Ph.D. (2010).

Stecyk, Jonathan A. W. Professor, Biological Sciences, College of Arts and Sciences.
Augustana University College, B.Sc. (1999); Simon Fraser University, M.Sc. (2002); University of British Columbia, Ph.D. (2007).

Stephenson, Kathleen S. Professor, Nursing, College of Health.

University of Northern Colorado, B.S. (1979), M.A. (1994); University of Colorado, M.S. (1984).

Stephenson, Teresa M. Professor, Accounting, College of Business and Public Policy.
National University, San Diego, B.B.A. (1989); Indiana University, M.Prof.Acct. (2000); University of Kentucky, Ph.D. (2006).

Sterling, Lorelei. Professor, Library Science, Consortium Library.
University of California, B.A.; San Jose State University, M.S. (2001); Washington State University, M.A.

Stevens, Jason. Term Instructor, Business and Data Analytics, College of Business and Public Policy.
Biola University, B.S. (2006); California State University Long Beach, M.A. (2011); University of Alaska Anchorage, M.B.A. (2020).

Stoddard, Laura L. Assistant Professor, Dental Assisting, College of Health.
University of Alaska Anchorage, A.A.S. (1999), B.S. (2012), M.Ed. (2021).

Stoeckler, Rebecca L. Term Assistant Professor, Nursing, College of Health.
Simmons College, M.S.N.

Stoepler, Kristin M. Term Associate Professor, Public Health, College of Health.
Ball State University, B.S. (2006); University of Wisconsin La Crosse, M.S.Ed. (2010).

Stouff, Jared S. Term Instructor, Auto Diesel Technology, Community and Technical College.

Straley, Stasia C. Professor, Accounting, College of Business and Public Policy.
University of Wyoming, B.S. (2003), B.A. (2003), M.S. (2004).

Summers, Debora M. Term Instructor, Chemistry, College of Arts and Sciences.
Miami University, Oxford, B.S. (1983); University of Alaska Anchorage, M.A. (2009).

Sutton, Lauren N. Term Assistant Professor, Alaska Center for Conservation Science, College of Arts and Sciences.
Western Washington University, B.A. (2012), B.S. (2015); University of Alaska Fairbanks, Ph.D. (2022).

Swalling, Frederick M. Term Assistant Professor, Construction Management, Community and Technical College.
Santa Clara University, B.S. (1969); University of Alaska Anchorage, M.S. (2018).

T

Taivalkoski, Ariel E. Assistant Professor, Anthropology, College of Arts and Sciences.
University of Michigan, B.A. (2012); University at Buffalo, M.A. (2015), Ph.D. (2020).

Tao, Zhi (Vicky). Associate Professor, Logistics and Global Supply Chain Management, College of Business and Public Policy.
Henan University, B.S. (1995); East China University of Science and Technology, B.S. (2001); University of Delaware, M.A. (2005); Kent State University, Ph.D. (2013).

Tarlow, Kevin R. Assistant Professor, Psychology, College of Arts and Sciences.
Texas A&M University, B.S. (2009), Ph.D. (2017); Columbia University, M.A. (2011) Ed.M. (2011).

Tatela, Michelle L. Term Clinical Instructor, Nursing, College of Health.
University of Washington, B.A. (2001), M.N. (2008).

Tavernier, Susan S. Associate Director, School of Nursing. Associate Professor, Nursing, College of Health.
Whitworth University, B.S.N. (1985); Loyola University of Chicago, M.S.N. (1990); University of Utah, Ph.D. (2009).

Terry, Ruth D. Professor, Library Sciences, Consortium Library.
Texas A&M University, B.A. (2006); Texas Woman's University, M.L.S. (2013).

Therkildsen, Alisa Konishi. Term Assistant Professor, Speech Language Pathology, College of Health.
James Madison University, B.S. (2013); University of Wyoming, M.S. (2015), Ph.D. (2025).

Titus, James A. Assistant Professor, Process Technology, Kenai Peninsula College.

Todd, Larissa L. Term Assistant Professor, Medical Laboratory Science, College of Health.
Michigan State University, B.S. (2018).

Tomco, Patrick L. Professor, Chemistry, College of Arts and Sciences.

University of Nevada, Reno, B.S. (2005); University of California, Davis, Ph.D. (2011).

Toscano, Sharyl E. Professor, Nursing, College of Health.
University of Massachusetts Amherst, B.S. (1994), University of Massachusetts Lowell, M.S. (1998); Boston College, Ph.D. (2002).

Trang, Tran C. Term Research Assistant Professor, Education Policy, ISER, College of Business and Public Policy.
University of Danang, B.A. (2013); Oregon State University, M.P.P. (2016).

Trawver, Kathi R. Professor, Social Work, College of Health.
University of Northern Iowa, B.S.W. (1979); University of Alaska Anchorage, M.A. (1998); University of Texas at Austin, Ph.D. (2011).

Trifoi, Bianca. Term Assistant Professor, History, College of Arts and Sciences.
Florida Atlantic University, B.A. (2015); Florida International University, M.A. (2017); George Washington University, Ph.D. (2025).

Tripp, Kevin N. Term Assistant Professor, Library Science, Consortium Library.

Western Washington University, B.A. (1987), M.A. (1989).

Trotter, Richard Clayton. Professor, Business Administration, College of Business and Public Policy.
University of Texas, Austin, B.A. (1973); University of Texas School of Law, J.D. (1976).

Trujillo, Angelia C. Professor, Nursing, College of Health.
University of Alaska Anchorage, B.S. (1997), M.S. (2004); University of Tennessee, D.N.P. (2008).

Trussell, Cindy I. Professor, Biology, Kodiak College.
University of Miami, B.S. (1996); University of North Carolina at Chapel Hill, Ph.D. (2004).

Tucker, Brock C. Assistant Professor, Psychology, College of Arts and Sciences.
University of Alaska Anchorage, B.A. (2013), M.S. (2022), Ph.D. (2023).

U

Uffenbeck, Shannon R. Term Associate Professor, Medical Education, WWAMI, College of Health.
University of Alaska Anchorage, B.S. (2000), M.S. (2008); University of Alaska Fairbanks, Ph.D. (2013).

Urbanus, Amy L. Associate Professor, Dietetics and Nutrition, College of Health.
Colorado State University, B.S. (1997); University of Alaska Anchorage, M.S. (2018).

V

Van Dommelen, Dorn. Professor, Geography, College of Arts and Sciences.
Pennsylvania State University, B.Sc. (1985); University of Kentucky, Lexington, M.A. (1988); University of Toronto, Ph.D. (1996).

Van Doren, Taylor. Post Doctoral Fellow, Public Health, College of Health.
Towson University B.S. (2015), B.S. (2015); University of Missouri Columbia, M.A. (2017), Ph.D. (2022).

Van Muysen, Sharon. Term Assistant Professor, Library Science, Consortium Library.
Texas State University, B.S. (2003); University of North Texas, M.L.I.S. (2011).

Van Tets, Ian G. Associate Professor, Biological Sciences, College of Arts and Sciences.
Monash University, Melbourne, B.S. (1989), B.S. (1991); University of Wollongong, Australia, Ph.D. (1996).

Varney, Peter B. Associate Professor, Nursing, College of Health.
Salisbury University, B.S./B.S., (2008); Wilmington University, M.N.S. (2012), M.B.A. (2015).

Vasudevan, Vinod. Professor, Civil Engineering, College of Engineering.
Calicut University, B.Tech. (1999); University of Nevada Las Vegas, M.S.E. (2003), Ph.D. (2008).

Veh, Andreas F. Associate Professor, Physics/Math, Kenai Peninsula College.
Technical University, Berlin, B.S. (1990); Mankato State College, M.S. (1994); Chadron State College, M.A. (2001).

Venema, Rieken S. Professor, Statistics, College of Arts and Sciences.
University of Groningen, B.S. (1992); Mathematics Research Institute, M.S. (1993); Oregon State University, M.S. (1994); University of Groningen, Ph.D. (1999).

W

Walch, Amanda K. Associate Professor, Dietetics and Nutrition, College of Health.
University of Minnesota, St. Paul, B.S. (1997); University of Alaska Anchorage, M.P.H. (2009); University of Alaska Fairbanks, Ph.D. (2016).

Walker, Andrea M. Assistant Professor, Justice, College of Health.
Southern Oregon University, B.A. (2003); Boston University, M.S. (2007); Washington State University, Ph.D. (2017).

Walker, Rebecca. Term Assistant Professor, Veterinary Technology, Matanuska-Susitna College.
Portland Community College, A.A.S. (2009); University of Alaska Anchorage, B.S. (2015).

Wallace, Lauren A. Assistant Professor, Library Science, Consortium Library.
Azusa Pacific University, B.A. (2008), Simmons University, M.S. (2015).

Wang, Caixia. Professor, Geomatics, College of Engineering.
Wuhan University, B.E. (1999); University of Maine, M.S. (2004); George Mason University, Ph.D. (2010).

Warren, Joseph B. Assistant Professor, Political Science, College of Arts and Sciences.
Reed College, B.A. (2013); University of California Berkeley, M.A. (2018), Ph.D. (2021).

Watkin, Bryan B. Term Assistant Professor, Aviation Maintenance Technology, Community and Technical College.
University of Rhode Island, B.S. (2009).

Watson, Brett J. Associate Professor, Economics/ISER, College of Business and Public Policy.
Texas State University, B.B.A. (2012); Colorado School of Mines, M.S. (2014), Ph.D. (2017).

Watts, Brandy L. Term Assistant Professor, Library Science, Consortium Library.
University of Illinois at Urbana-Champaign, B.F.A. (2010); School of Visual Arts New York, M.F.A. (2012); University of California Los Angeles, M.L.I.S. (2017).

Weber, Jennie L. Term Instructor, Quantitative Studies, Kenai Peninsula College.
University of North Dakota, B.A./B.S. (2002), M.A. (2004); Kent State University, M.L.I.S. (2007).

Weber, Raymond E. Dean, Community and Technical College. Professor, Aviation Technology, Community and Technical College.
University of North Dakota, B.S. (2001), M.S. (2004); Kent State University, Ph.D. (2016).

Weiss, Wade R. Term Assistant Professor, Aviation Technology, Community and Technical College.
Oklahoma State University, B.S. (1996); Embry-Riddle Aeronautical University, M.S. (2013).

Welker, Jeffrey M. Professor, Biological Sciences, College of Arts and Sciences.
Montana State University, Bozeman, B.S. (1980), M.S. (1982); Texas A&M University, Ph.D. (1985).

Werth, Clare V. Term Assistant Professor, Nursing, College of Health.

University of Cincinnati, B.S.; Liberty University, M.S.

West, Nathan T. Term Assistant Professor, Behavioral Sciences, ISER, College of Business and Public Policy.
Taylor University, B.S. (2017); Northern Illinois University Edwardsville, M.S. (2019); University of Memphis, Ph.D. (2022).

Wettin, Emily A. Term Assistant Professor, Nursing, College of Health.
Washington State University, B.S. (2011); Western Governors University, M.S.N. (2019).

White, Rachelle K. Term Assistant Professor, Nursing, College of Health.
Northwest University, B.S.N. (2005); University of Alaska Anchorage, M.S.N. (2018).

Whitmore, Corrie B. Associate Professor, Public Health, College of Health.
University of Alaska Fairbanks, B.A. (2003); Virginia Polytechnic Institute and State University, M.S. (2007), Ph.D. (2009).

Widdicombe, Richard T. Professor, English, College of Arts and Sciences.
Cambridge University, England, B.A. (1977), M.A. (1981); University of California, Irvine, M.A. (1979), Ph.D. (1984).

Williams, Maria D. Professor, Alaska Native Studies, College of Arts and Sciences.
University of California, Los Angeles, M.A. (1989), Ph.D. (1996).

Wilkes, Nicole. Assistant Professor, Justice, College of Health.
University of Wisconsin-La Crosse, B.S. (2004); University of North Carolina, Chapel Hill, M.P.H. (2011); University of Cincinnati, Ph.D. (2025).

Wilson, Brock. Term Research Assistant Professor, Applied Economics, ISER, College of Business and Public Policy.
University of Oregon, B.S./B.S. (2018), M.S. (2021).

Wisniewski, Helena S. Professor, Business Administration, College of Business and Public Policy.
William Patterson College, B.A. (1971); Stevens Institute of Technology, M.S. (1973); City University of New York, Ph.D. (1980).

Witmer, Frank D.W. Associate Professor, Computer Science, School of Engineering.
Tufts University, B.S. (1997); University of Colorado, Boulder, M.A. (2003), Ph.D. (2007).

Workman, Erin R. Term Clinical Instructor, Nursing, College of Health.
Oregon Health Sciences University La Grande, B.S.N. (1997).

Worthington, Amber K. Associate Professor, Communication, Community and Technical College
Wake Forest University, B.S. (2011); Pennsylvania State University, M.A. (2013), Ph.D. (2017).

Wrigley, Julia A. Interim Associate Dean, CBPP. Associate Professor, Business Administration, College of Business and Public Policy.
Portland State University, B.A. (1995); Willamette University, J.D. (1999).

X

Y

Yang, Zhaohui (Joey). Professor, Civil Engineering, College of Engineering.
Chengdu University of Science and Technology, China, B.S. (1991); Sichuan Union University, M.S. (1993); University of California, Davis, Ph.D. (2002).

Yatchmeneff, Michele. Chief Operations Officer, ANSEP. Associate Professor, Engineering, College of Engineering.
University of Alaska Anchorage, B.S. (2005), M.S. (2009); Purdue University, Ph.D. (2015).

Young, Kathleen E. Term Associate Professor, Medical Education, WWAMI, College of Health.
Trinity College, Dublin, M.B., B.Ch., B.A.O. (1990).

Z

Administration

UAA Administration

Interim Chancellor, Cheryl Siemers

Provost and Executive Vice Chancellor for Academic Affairs, Denise Runge (https://www.uaa.alaska.edu/academics/office-of-academic-affairs/)

Vice Chancellor for Administrative Services, Ryan Buchholdt (https://www.uaa.alaska.edu/about/administrative-services/)

Acting Vice Chancellor for Student Affairs, Ben Morton (https://www.uaa.alaska.edu/about/student-affairs/)

Vice Chancellor for Research, Aaron Dotson (https://www.uaa.alaska.edu/research/)

Board of Regents

Office of Regents' Affairs *(*http://alaska.edu/bor/*)*

Board of Regents Executive Officer
University of Alaska
202 Butrovich Building
P.O. Box 755300
Fairbanks, Alaska 99775-5300

The Regents of the University of Alaska are appointed by the Governor and approved by the Legislature. The Board was established through the Alaska Constitution and is responsible for University of Alaska policy and management through the University President.

Board of Regents Members

Dale Anderson, Regent, Juneau (2012-2029)

Seth Church, Regent, Fairbanks (2023-2027)

Stephan (Steve) Colligan, Regent, Wasilla (2023-2031)

Joey Crum, Regent, Wasilla (2023-2031)

Paula Harrison, Regent, Anchorage (2023-2031)

J. Scott Jepsen, Regent, Anchorage (2021-2031)

Dennis L. Michel, Regent, Fairbanks (2023-2027)

Karen Perdue, Regent, Fairbanks (2017-2033)

Ralph Seekins, Regent, Fairbanks (2021-2029)

Christine Resler, Regent, Anchorage (2025-2033)

Fernando Escobar, Student Regent (2025-2027)

Faculty Emeriti

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A

Nancy Andes, Professor Emerita of Sociology, 2009
John E. Angell, Professor Emeritus of Justice, 1998
Sharon K. Araji, Professor Emerita of Sociology, 2008
Saradell A. Ard, Professor Emerita of Art, 1985
Steven E. Aufrecht, Professor Emeritus of Public Administration, 2006

B

Elisha R. "Bear" Baker, Provost Emeritus, 2014
Gilbert W. Bane, Professor Emeritus of Biological Sciences, Kodiak College, 2005
Allan B. Barnes, Professor Emeritus of Justice, 2022
Donald F. Behrend, Chancellor Emeritus, 1994
Gretchen T. Bersch, Professor Emerita of Adult and Developmental Education, 1997
Jean-Paul Billaud, Professor Emeritus of Music, 1985
Robert J. Boeckmann, Professor Emeritus of Psychology, 2025
Alan S. Boraas, Professor Emeritus of Anthropology (posthumous), Kenai Peninsula College, 2020
Jeane T'áaw xíwaa Breinig, Professor Emerita of English, 2019
Christiane Brems, Professor Emerita of Psychology, 2012
Anne Bridges, Professor Emerita of Culinary Arts and Hospitality, 2020
Sylvia C. Broady, Professor Emerita of Journalism & Public Communication, 1995
Marilyn Hanf Buckley, Professor Emerita of Education, 1997
Arthur E. Bukowski, Professor Emeritus of Mathematics, 1998

C

Omer L. Carey, Professor Emeritus of Business Administration, 1986
Thomas R. Case, Chancellor Emeritus, 2017
Ping-Tung "P.T." Chang, Professor Emeritus of Mathematics, Matanuska-Susitna College, 2014
Barbara M. Christian, Professor Emerita of English, Kenai Peninsula College, 2009
Dennis W. Clark, Director Emeritus, Matanuska-Susitna College, 2011
Talis J. Colberg, Director Emeritus, Matanuska-Susitna College, 2024

Stephen G. Colt, Professor Emeritus of Economics, 2016
Robert E. Congdon, Professor Emeritus of Justice, 2005
Joseph F. Connors, Professor Emeritus of Communication, 1997
Ronald M. Crawford, Professor Emeritus of History/Geography, 2002

Kristine J. Crossen, Professor Emerita of Geological Sciences, 2018

D

M. Hilary Davies, Professor Emerita of Mathematics, 2013
Deborah C. Davis, Professor Emerita of Counseling, 1999
Donald I. Davis Jr, Professor Emeritus of Geomatics, 2011
Tina D. DeLapp, Professor Emerita of Nursing, 2004

Elizabeth J. Dennison, Professor Emerita of History, 2024
Herminia Din, Professor Emerita of Art, 2024
Timothy W. Doebler, Professor Emeritus of Culinary Arts and Hospitality, 2018
Peter W. Dowrick, Professor Emeritus of Psychology, 1994
Marie C. Doyle, Professor Emerita of Psychology, 1985
Claudia S. Dybdahl, Professor Emerita of Elementary Education, 2016

E

David P. Edgecombe, Professor Emeritus of Theatre, 2015
Nelta M. Edwards, Professor Emerita of Sociology, 2024
Richard L. Ender, Professor Emeritus of Management Information Systems, 1997
Margritt A. Engel, Professor Emerita of Languages, 2003
Sandra G. Ehrlich-Mathiesen, Professor Emerita of Business Communications, 2024
Ted G. Eschenbach, Professor Emeritus of Engineering Management, 1998

F

Elizabeth J. Fallon, Professor Emerita of English, Matanuska-Susitna College, 1999
Phyllis A. Fast, Professor Emerita of Anthropology, 2014
Kerry D. Feldman, Professor Emerita of Anthropology, 2010
Victor Fischer, Director Emeritus, Institute of Social & Economic Research, 1996
David A. Fitzgerald, Professor Emeritus, Computer Information Systems, 2020
Jill Flanders Crosby, Professor Emerita, Dance, 2023
Ruth S. Fluornoy, Professor Emerita of Mathematical Sciences, 1999
Edward J. Forrest, Professor Emeritus of Business Administration, 2020
Larry Morris Foster, Professor Emeritus of Mathematics, 2020

G

George A. Geistauts, Professor Emeritus of Business Administration, 2016
Oliver Scott Goldsmith, Professor Emeritus of Economics, 2012
Mariano Gonzales, Professor Emeritus of Art, 2024
Edward Lee Gorsuch, Chancellor Emeritus, 2004
Elizabeth E. Graber, Professor Emerita of English, 2016
Ken Gray, Professor Emeritus of Art, 1994
G. Hayden Green, Dean Emeritus, College of Business & Public Policy, 2002
Judith F. Green, Professor Emerita of Library Science, 2015
Patricia R. Grega, Professor Emerita of Developmental Education, 2017

H

Joan M. Haig, Professor Emerita of Mathematics, 2025
Lewis E. Haines, Professor Emeritus of Education, 1985
Ronald W. Haney, Professor Emeritus of Aviation Management, 2011

Diane Hanson, Professor Emerita of Anthropology, 2024
Hiroko Harada, Professor Emerita of Language (Japanese), 2023
Michael C. Hawfield, Associate Professor Emeritus of History and Political Science, Kenai Peninsula College, 2016
Stephen W. Haycox, Professor Emeritus of History, 2010
Leslie W. Heasley, Professor Emeritus of Chemistry, 2009
John M. Hilpert, Professor Emeritus of Engineering Management, 1987
Diddy R.M. Hitchins, Professor Emerita of Political Science, 2006
Patricia A. Hong, Professor Emerita of Nursing, 2005
Eileen K. Hughes, Professor Emerita of Early Childhood Development, 2007
T. Lee Huskey, Professor Emeritus of Economics, 2014

I

Charles H. Iliff, Professor Emeritus of Business Computer Information Systems, 1997
Catherine E. Innes-Taylor, Professor Emerita of Library Science, 2007

J

Stephen L. Jackstadt, Professor Emeritus of Economics, 2008
William A. Jacobs, Professor Emeritus of History & Political Science, 2002
Mary K. Janis, Professor Emerita of Biological Sciences, 2001
Jill R. Janke, Professor Emerita of Nursing, 2022
Francis L. Jeffries, Professor Emeritus of Business Administration, 2018
Stanley White Johnson, Dean Emeritus, College of Arts & Sciences, 1990
Virginia R. Johnson, Professor Emerita of Secondary Education, 2000

Mark E. Johnson, Professor Emeritus of Psychology, 2012
Garth N. Jones, Professor Emeritus of Public Policy & Administration, 1988

K

Bruno M. Kappes, Professor Emeritus of Psychology, 2016
Garry C. Kaulitz, Professor Emeritus of Art, 2014
Laura W. Kelley, Professor Emerita of Human Services, 2015
Sam Isamu Kimura, Professor Emeritus of Art, 1996
Daniel T. Kline, Professor Emeritus of English, 2022
Cindy M. Knall, Professor Emerita of Medical Education, 2024
Gunnar D. Knapp, Professor Emeritus of Economics, 2016
Lynn K. Koshiyama, Professor Emerita of Accounting, 2018
Jocelyn E. Krebs, Professor Emerita of Biological Sciences, 2023
John A. Kruse, Professor Emeritus of Public Policy, 1997
Jerry D. Kudenov, Professor Emeritus of Biological Sciences, 2017
Arlene E. Kuhner, Professor Emerita of English (posthumous), 1997
Richard W. Kullberg, Professor Emeritus of Biological Sciences, 1998

L

Claudia B. Lampman, Professor Emerita of Psychology, 2022
Paul H. Landen, Professor Emeritus of Psychology, Kenai Peninsula College, 2020
Robert J. Lang, Professor Emeritus of Civil Engineering, 2019
Stephen J. Langdon, Professor Emeritus of Anthropology, 2014
Ronald L. Lautaret, Professor Emeritus of Library Science, 1994
Frances E. Lautenberger, Professor Emerita of Theatre, 2012
Linda P. Lazzell, Vice Chancellor Emerita, Student Affairs, 2009
Charles "Sean" Licka, Professor Emeritus of Art, 2017
Patricia W. Linton, Professor Emerita of English, 2018
James J. Liszka, Professor Emeritus of Philosophy, 2011
He "Helen" Liu, Professor Emerita of Civil Engineering, 2016

M

David C. Maas, Professor Emeritus of Political Science, 1998
Robert J. Madigan, Professor Emeritus of Psychology, 2005
Elizabeth K. Madsen, Professor Emerita of Library Science, Matanuska-Susitna College, 2003
Kristine E. Mann, Professor Emerita of Biological Sciences, 1999
Cheryl M. Mann, Professor Emerita of Human Services, 2009
Heidi A. Mannion, Professor Emerita of Medical Laboratory Science, 2018
Jerzy Maselko, Professor Emeritus of Chemistry, 2015
Glenn F. Massay, Director Emeritus, Matanuska-Susitna College, 1995
Linda J. McCarriston, Professor Emerita of Creative Writing and Literary Arts, 2015
Edward A. McLain, Associate Professor Emeritus of Educational Leadership, 2023
Robert O. McCoy, Professor Emeritus of Mathematics, 2016
Beatrice Gray McDonald, Professor Emerita of Secretarial Science, 1976
Jane "Ellen" McKay, Professor Emerita of Architectural and Engineering Technology, 2018
Margaret S.D. Mete, Professor Emerita of Nursing, 2023
E. Dean Milligan, Professor Emeritus of Biological Sciences, 1998
Donald E. Mohr, Professor Emeritus of History, 2006
Judith K. Moore, Professor Emerita of English, 2012
Thomas A. Morehouse, Professor Emeritus of Institute of Social & Economic Research, 1994
Roberta H. Morgan, Professor Emerita of Psychology, 1998
Max J. Morley, Professor Emeritus of Automotive & Diesel Technology, 1998
James W. Muller, Professor Emeritus of Political Science, 2023
Christina M. Mumma, Professor Emerita of Nursing, 2005
William L. Myers, Professor Emeritus of History, 2025

N

William G. Nelson, Professor Emeritus of Engineering, 1998
Joseph Clay Nunnally, Professor Emeritus of English, 2015

O

Kathleen D. O'Dell, Professor Emerita of Secondary Education, 2006
Alvin S. Okeson, Director Emeritus, Matanuska-Susitna College, 2002

John A. Olofsson, Professor Emeritus of Civil Engineering, 2015
Stephanie M. Olson, Professor of Dental Assisting, 2024
Maureen O'Malley, Professor Emerita of Nursing (posthumous), 2020

Sylvia M. Orr, Professor Emerita of Medical Laboratory Technology, 1998

P

Michael E. Pajot, Professor Emeritus of Sociology, 2008
Morris Greg Parrish, Professor Emeritus of Physics, 2012
Anne D. Pasch, Professor Emerita of Geology, 1997
Rebecca H. Patterson-Turner, Professor Emerita of English, 1999
Sandra Pence, Professor Emerita of Dental Hygiene, 2020
Judith A. Petersen, Professor Emerita of Nursing Science, 2002
Kim M. Peterson, Professor Emeritus of Biological Sciences, 2014
John M. Petraitis, Professor Emeritus of Psychology, 2022
Elizabeth J. Predeger, Professor Emerita of Nursing, 2017
Darren J. Prokop, Professor Emeritus of Logistics, 2023

Q

T. Bartlett Quimby, Professor Emeritus of Civil Engineering, 2014

R

Gail L. Renardson, Professor Emerita of English, PWSCC, 2012
Todd R. Risley, Professor Emeritus of Psychology, 2003
Alden M. Rollins, Professor Emeritus of Library Science, 1999
Rosellen M. Rosich, Professor Emerita of Psychology, 2015
Larry L. Ross, Professor Emeritus of Economics, 2019
Jerilyn G. Rubin, Professor Emerita of Business Administration, 2020

Susan M. Ryan, Professor Emerita of Special Education, 2007

S

Kate E. Sandberg, Professor Emerita of English, 2002
Nancy E. Schafer, Professor Emerita of Justice, 2002
Stanley E. Sears, Professor Emeritus of Geomatics, 1998
Alice L. Sears, Professor Emerita of English, 2006
Bernard Segal, Professor Emeritus of Health Sciences, 2006
Hilary J. Seitz, Professor Emerita of Early Childhood Education, 2023

Lidia L. Selkregg, Professor Emerita of Public Administration/ Planning, 1985
Thomas F. Sexton, Professor Emeritus of English, 1994
Donna Gail Shaw, Professor Emerita of Elementary Education, 2012
Carl E. Shepro, Professor Emeritus of Political Science, 2012
Elizabeth A. Sirles, Professor Emerita of Social Work, 2017
Orson P. Smith, Professor Emeritus of Civil Engineering, 2014

Donald E. Spalinger, Professor Emeritus of Biological Sciences, 2020

Ginger I. Steffy, Director Emeritus, Kenai Peninsula College, 2002
Troy G. Sullivan, Professor Emeritus of Education, 1986
Bjartmar Sveinbjornsson, Professor Emeritus of Biological Sciences, 2016
Carol I. Swartz, Director Emerita, Kachemak Bay Campus, 2018

T

Bradford H. Tuck, Professor Emeritus of Economics, 1999
Michael T. Turner, Professor Emeritus of Counseling, 2013
Gary Turner, Director Emeritus, Kenai Peninsula College, 2021

U

V

Douglas W. Veltre, Professor Emeritus of Anthropology, 2008

W

Karen M. Ward, Director Emeritus, Center for Human Development, 2024
Garlyn R. Warren, Professor Emeritus of Business Computer Information Systems, 1997
David C. Wartinbee, Professor Emeritus of Biology, 2015
Lawrence D. Weiss, Professor Emeritus of Health Sciences, 2004
Brian D. Wick, Professor Emeritus of Mathematics, 2010
James R. Wilson, Professor Emeritus of English, 1984
Mark E. Wolbers, Professor Emeritus of Music, 2018
Wendell W. Wolfe, Professor Emeritus of Education, 1979?
William B. Workman, Professor Emeritus of Anthropology, 2005

X

Y

Z

Hannele K. Zubeck, Professor Emerita of Civil Engineering, 2019

Graduate Programs

Overview

Graduate School *(http://www.uaa.alaska.edu/graduateschool/)*
(907) 786-1098

Graduate education is an integral part of the University of Alaska Anchorage offering students a dynamic step forward in their intellectual and career advancement. The Graduate School coordinates graduate education and is a multifaceted resource for students from assisting in exploration of a degree program to providing professional skill development. The dean of the Graduate School has responsibility for leadership and oversight of graduate programs and all graduate school functions.

The university offers graduate certificates, master's degrees, accelerated master's degrees, and doctoral degrees. Students may also pursue graduate studies at UAA that apply toward doctoral degrees offered in collaboration with other institutions. Some or all coursework and research may be completed at UAA while the doctoral degree is granted by another university.

Students' academic preparation and likelihood of success in their graduate programs are carefully assessed and validated. Admission requirements provide an opportunity for students to document their credentials and demonstrate readiness for graduate studies.

Once admitted, students receive discipline-specific advising from mentors in their programs dedicated to their success. The Graduate School offers graduate student workshops, professional development, scholarships, and skill coaching to support a successful graduate school experience.

Students who have completed UAA graduate programs possess the knowledge and skills necessary to succeed in furthering their education and to excel in their chosen professions. Whether the degree is required for advancement, personal and professional growth, or for other goals, students may expect the challenges and rewards of a high-quality graduate education.

Upon successful completion of their graduate programs, students will have participated in independent scholarship and demonstrated mastery of their disciplines. Program exit requirements allow students to express the knowledge they have acquired in formats ranging from culminating projects and capstone experiences to a published thesis. For expected student outcomes and program exit requirements, please see individual program listings.

Graduate students are subject to relevant policies contained in the complete UAA Catalog, as well as individual program requirements listed in this catalog and in graduate student handbooks developed by individual graduate programs.

Accelerated Master's: Master's degrees with an "*" below offer an accelerated pathway where students may count a set number of credits toward both the UAA baccalaureate and master's degree. Click on the program to see more details.

A

- Advanced Leadership in Special Education (GC) (p. 390)
- Applied Anthropology (MA)* (p. 367)
- Applied Geological Sciences (MS) (p. 369)
- Artificial Intelligence, Data Science, and Engineering (MS)* (p. 398)

B

- Biological Sciences (MS)* (p. 371)
- Business Analytics & Artificial Intelligence (GC) (p. 382)

C

- Children's Mental Health (GC) (p. 374)
- Civil Engineering (MS)* (p. 400)
- Clinical Health Services (MCHS, Physician's Assistant collaborative program with University of Washington) (p. 429)
- Clinical Psychology (MS) (p. 375)
- Clinical-Community Psychology (PhD) (p. 377)

D

- Dietetics & Nutrition (MS) (p. 407)

E

- Educational Leadership (MEd) (p. 390)
- Educational Leadership: Principal (GC) (p. 392)
- English (MA) (p. 379)
- Executive Leadership (GC) (p. 382)

F

- Family Nurse Practitioner (GC) (p. 409)

G

- General Management (MBA) (p. 383)
- Global Supply Chain Management (MS) (p. 385)

I

- Indigenizing Education (GC) (p. 393)
- Interdisciplinary Studies (MA or MS) (p. 430)

L

- Language & Literacy Education (GC) (p. 393)

M

- Mechanical Engineering (MS)* (p. 402)
- Medical Doctor (MD, Collaborative program with University of Washington) (p. 429)

N

- Nursing Education (GC) (p. 411)
- Nursing Science (DNP) (p. 412)
- Nursing Science (MS) (p. 414)

O

- Occupational Therapy (OTD, Collaborative program with Creighton University) (p. 429)

P

- Pharmacy (PharmD, Collaborative program with Idaho State University) (p. 430)
- Project Management (GC) (p. 404)
- Project Management (MS)* (p. 405)
- Psychiatric Mental Health Nurse Practitioner (GC) (p. 419)
- Public Administration (MPA) (p. 385)
- Public Health (GC) (p. 420)
- Public Health Practice (MPH)* (p. 421)
- Public Policy (MPP) (p. 386)

S

- School Psychology-Specialist (MS) (p. 379)
- Social Work (MSW) (p. 424)
- Social Work/Public Health (Dual Degree MSW/MPH) (p. 426)
- Special Education (GC) (p. 395)
- Special Education (MEd) (p. 396)

T

- Teaching & Learning (MEd) (p. 397)

Program Key

Code	Description
GC	Graduate Certificate
MA	Master of Arts
MBA	Master of Business Administration
MCHS	Master of Clinical Health Services
MEd	Master of Education
MFA	Master of Fine Arts
MPA	Master of Public Administration
MPH	Master of Public Health
MPP	Master of Public Policy
MS	Master of Science
MSW	Master of Social Work
MSW/MPH	Dual Degree, Master of Social Work/Master of Public Health
DNP	Doctor of Nursing Practice
MD	Doctor of Medicine
OTD	Doctor of Occupational Therapy
PharmD	Doctor of Pharmacy
PhD	Doctor of Philosophy

Graduate Degrees

General University Requirements

To complete a graduate degree, a student must complete the General University Requirements (GURs) for graduate degrees, school or college requirements, and program requirements. GURs for all graduate degrees are as follows:

1. A student must be admitted to the degree program and establish an approved graduate studies plan (GSP).
2. No more than 9 credits may be completed in the student's graduate program before program admission, unless a student wishes to apply credits from a previous graduate certificate in the same or closely related subject area.
3. The student must complete at least 30 approved semester credits beyond the baccalaureate degree for a master's degree, and must complete at least three years of post-baccalaureate study for a doctoral degree. For a master's degree, individual programs may place limits on the number of credits derived from thesis, individual research and/or independent study courses. No more than 45 credits may be required by any master's degree program, unless specifically approved by the University of Alaska Board of Regents. The actual number of credits required for each graduate degree program, including prerequisites for required courses, are specified in the current catalog. While no minimum or maximum credits are specified for doctoral programs, a student is expected to be affiliated with the university for at least two years. On approval by the dean of the Graduate School and college dean, an official GSP may stipulate other course credit requirements, including leveling courses.
4. Up to 9 semester credits not used toward any other degree (graduate or 400 level) may be transferred to UAA from an accredited institution and counted toward a graduate degree. In the case of a second master's degree, up to 9 credits may be transferred from a previous master's degree. In the case of a doctoral degree, up to 21 credits may be transferred from previous graduate study. Acceptance of transfer credit toward program requirements is approved by individual programs, college deans and the Graduate School.
5. Only 400- and 600-level courses approved by the graduate student's advisor, graduate studies committee and dean or designee may be counted toward graduate program requirements. Courses at the 500 level are for professional development and are not applicable toward any degree.
6. A minimum cumulative GPA of 3.00 must be earned in courses identified in the official GSP.
7. In 600-level courses, a grade of C is minimally acceptable, provided the student maintains a minimum cumulative GPA of 3.00 (B) in all courses applicable to the graduate program. At least 21 credits must be taken at the graduate level (600) for any master's degree, including thesis credits. For performance comparison only, in 600-

level courses a grade of P (pass) is equivalent to a minimum grade of B, but does not enter into the GPA calculation.

8. Courses taken as credit by examination, or graded credit/no credit (CR/NC) do not count toward graduate program requirements. They may, however, be used to satisfy prerequisites or establish competency in a subject, allowing the advisor or committee to waive certain courses in an established program as long as the total credits in the program remain the same.
9. All credits counted toward the degree, including transfer credits, must be earned within the consecutive seven-year period for a master's degree or the consecutive 10-year period for a doctoral degree prior to graduation. If these requirements are not met, admission expires and the student must reapply for admission and meet the admission requirements in effect at that time (see Catalog Year in Graduate Degree Policies (p. 360)).
10. Students must be continuously registered throughout their graduate program (see Continuous Registration in Graduate Degree Policies (p. 360)).
11. Students must complete all requirements established by the program and must pass a written or oral comprehensive examination; an evaluation of independent scholarship, project or thesis defense; or similar evaluation as established by the program. For programs with a thesis option, selection of that option will be indicated on the GSP and on the annual progress report. The evaluation, examination or defense must be approved by all graduate committee members as passing the requirement. For programs with projects that result in a written record, those records will be maintained by the programs for one year and are subject to review by the Graduate School. After the completion of a written or oral comprehensive exam, a thesis or a project, the student's graduate committee chair must submit an exam or defense report. (See Examinations below.)
12. When an oral comprehensive examination, project or thesis defense, or evaluation of independent scholarship is required, the student may select an outside reviewer approved by the dean of the Graduate School and college dean to participate in the evaluation. An outside examiner is required for a doctoral defense. Typically, the outside examiner is a faculty member from another department in the university, or another qualified individual in the area in which the student is seeking a degree.
13. All theses and dissertations must have final approval by the dean of the Graduate School.

Examinations (Requirement Determined by Program)

Qualifying Examinations

Some graduate degree programs require the student to complete a written and/or qualifying examination before advancement to candidacy. This examination is an interim evaluation of academic progress; the student may pass unconditionally or conditionally. A conditional pass indicates specific weaknesses that the student must remedy before degree requirements are completed. The Annual Report of Graduate Student Progress and Advancement to Candidacy Form should indicate mechanisms for addressing these weaknesses.

Comprehensive Examinations

Some graduate programs require that students pass a comprehensive examination, given to determine whether a graduate student has integrated knowledge and understanding of the principles and concepts underlying major and related fields, in order to achieve advancement to candidacy. For master's degrees, the graduate student's advisory committee may choose to give a written and/or comprehensive examination prior to advancement to candidacy. For doctoral degrees, written comprehensive examinations are normally required, although the student's committee may additionally choose to give an oral examination. A Report on Comprehensive Exam must be submitted to the Graduate School indicating date of completion, and approved by the graduate advisor and committee, program chair, college dean, and the Graduate School.

Defense of Project

Graduate students who are required to complete a project in fulfillment of degree requirements may be required to pass an oral defense of the project. Defense dates must be submitted to the Graduate School and publicly posted one week before the defense. The defense will consist of a presentation followed by questions on the research, analysis and written project presentation. All committee members must be present at the project defense. A Report on Project Defense must be submitted to the Graduate School indicating date of completion, and approved by the graduate advisor and committee, program chair, college dean, and the Graduate School.

Defense of Thesis

Graduate students who are required to complete a thesis in partial fulfillment of degree requirements must pass an oral defense of the thesis. Defense dates must be submitted to the Graduate School and publicly posted one week before the defense. The defense will consist of a presentation followed by questions on the research, analysis and written thesis presentation. The Graduate School will not accept a thesis for final submission until the student has successfully defended it. All committee members normally must be present for the defense of thesis, either physically present or through electronic media. A Report on Thesis/Dissertation Defense must be submitted to the Graduate School indicating date of completion, and approved by the graduate advisor and committee, program chair, college dean, and the Graduate School.

Examination Committee

In most cases, the student's graduate advisory committee prepares and gives the examinations under guidelines formulated by the program in which the degree is being taken.

Outside Examiner

The outside examiner represents the dean of the Graduate School. The examiner must be regular faculty with a doctoral degree. Their role is to determine that a stringent, unbiased examination/defense is fairly administered and evaluated. Outside examiners must complete a Report of the Outside Examiner and submit it to the Graduate School within five business days after the defense.

PhD Dissertation Defense

Outside examiners are required for all PhD dissertation defenses and must be from a different department than the student and the chair of the advisory committee. The Graduate School Dean will appoint the outside examiner for PhD dissertation defenses.

Doctoral Project Defense

Outside examiners are required for all Doctoral project defenses. They must be external to the project committee and have a substantive understanding of the concepts of doctoral level quality improvement projects. The Graduate School Dean will appoint the outside examiner based on the recommendation of the program's chair or director.

Advancement to Candidacy (Requirement Determined by Program)

Some master's programs and all doctoral programs require students to apply for advancement to candidacy. Advancement to candidacy status is a prerequisite to graduation and is determined by the program chair or designee. Candidacy is the point in a graduate study program at which the student has demonstrated an ability to master the subject matter and has progressed to the level at which a GSP can be approved. For doctoral program students, an Advancement to Candidacy Form serves as the final GSP.

To be approved for candidacy, a student must:

- Be in good academic standing.
- Demonstrate competence in the methods and techniques of the discipline, which may include passing a comprehensive examination.
- Receive approval of the independent scholarship, thesis or research project proposal from the student's graduate committee.
- Satisfy all prerequisites, remove all academic deficiencies and satisfy all terms of provisional admission.
- Submit an approved final official GSP.

Thesis Review

Before final acceptance, all members of a student's thesis committee, department/program chair/director, college dean, and the Graduate School dean must approve the thesis, as required by the student's graduate program. Changes or corrections to the thesis may be required at any of these levels. The thesis committee is primarily responsible for thesis evaluation, grammar, punctuation, usage, and formatting, and the department chair/director and college dean will also conduct reviews to monitor the quality of theses and check for any needed revisions. The Graduate School checks that the Title Page and preliminary pages conform to UAA standards. The Graduate School dean reviews all theses and will give final approval once all required corrections are made. Thesis credits will be given a deferred grade (DF) until all requirements are met.

Project Review

Before final acceptance, all members of a student's project committee, department/program chair/director, and college dean must approve a project as required by the student's graduate program. Changes or corrections to the project may be required at any of these levels. The project committee is primarily responsible for project evaluation, grammar, punctuation, usage, and formatting, and the department chair/director and college dean will conduct reviews to monitor the quality of projects and check for any needed revisions. Students should check with their programs for required formatting. The Graduate School checks that the Title Page and preliminary pages conform to UAA standards. Both the Graduate School Dean and the college dean review all projects. The college dean will give final approval once all required corrections are made. Project credits will be given a deferred grade (DF) until all requirements are met.

Graduate Student Research

Graduate students planning to conduct research that involves the use of human participant subjects and/or human participant data, vertebrate animals, hazardous chemicals, biohazards, and/or radioactive materials are required to complete the Research Compliance and Intellectual Property (RCIP) Form. Also, if graduate students are planning research that will lead to intellectual property with commercial potential, they should complete the RCIP Form. At the same time, all graduate students are expected to respect the copyright, license and intellectual property rights that may attach to files of any media type, including software, texts, databases, images, video, music and other audio files, especially when using university computing and/or networking resources.
For further information, contact the UAA Research Compliance Office or the associate vice provost for Research Administration and Commercialization.

Graduate Degree Policies

Academic Appeals

Students have the right to appeal academic actions. See Academic Dispute Resolution Procedure (p. 16).

Academic Standing

Good Standing

Graduate students are in good standing when they have a minimum UAA cumulative GPA of 3.00 and a minimum semester GPA of 3.00 for the most recently completed semester. For those programs with a pass/no pass grading option, a grade of P is considered equivalent to a minimum grade of B (3.00) in graduate courses. Individual departments may establish additional criteria for good standing. Students are presumed to be in good standing during their first semester at UAA. Graduate students in their second year of study and beyond must also have an Annual Report of Student Progress on file with the Graduate School to be considered in good standing. Students in good standing are academically eligible to re-enroll at UAA.

Academic Action

Admitted graduate certificate- and degree-seeking students who fail to earn a minimum UAA semester and/or cumulative GPA of 3.00 will be subject to academic action. Academic action may result in probation, continuing probation or loss of graduate certificate- or degree-seeking status. Individual departments may establish additional criteria for departmental academic action. Failure to meet or maintain these criteria may result in departmental probation or removal from a major program.

Academic Probation

Academic probation is the status assigned to those students not in good academic standing, i.e., whose semester and cumulative GPA falls below 3.00. It also applies to students who fail to undertake continuous registration or fail to make progress toward a graduate degree as indicated by the Annual Report of Student Progress.

Continuing Probation

Continuing probation is the status assigned to those students who begin a semester on probation and during that semester earn a minimum semester GPA of 3.00 without raising their cumulative GPA to at least 3.00. This status may be continued until the student raises their cumulative GPA to at least 3.00 or loses their graduate certificate- or degree-seeking status.

Academic Disqualification

Academic disqualification is the status assigned to those students who begin a semester on probation or continuing probation and fail to earn a minimum semester GPA of 3.00, fail to undertake continuous registration, or fail to make progress toward a graduate certificate or degree. Those students' admission status will be changed to non-degree-seeking. Students who have lost graduate certificate- or degree-seeking status may continue to attend UAA as non-degree-seeking students. However, those students do not qualify for financial aid and international students will lose their immigration status. Students must reapply to their UAA graduate program if they wish to return to degree-seeking status.

Additional Master's Degrees

Students who have received a master's or doctoral degree from an institutionally accredited college or university may earn a UAA master's degree by completing a minimum of 30 credits, of which 21 must be resident credits not used for any other previous degree. The student must meet all the General University Requirements for Graduate Degrees (p. 358), school or college requirements, and program requirements. Students may apply up to 9 credits required for a particular master's degree program from a previously earned master's program. These courses should be listed as transfer courses on the student's graduate studies plan (GSP), even if taken at UAA. Transferred credit may not include research, project, or thesis credit. All other UAA policies governing master's degrees are applicable to second master's degrees. If the appropriate credits and other requirements have been earned, two or more degrees may be awarded simultaneously.

Catalog Year for Graduate Degree Programs

Each student's term of admission/catalog year is established when the student is formally admitted into a certificate or degree program. A student's term of admission/catalog year is adjusted if the student formally postpones admission or reapplies after formal admission expires.

Students may elect to graduate under the requirements of any catalog in effect during the seven years after formal acceptance to a master's degree program or 10 years after formal acceptance to a doctoral degree program. If the requirements for the master's degree are not met within seven years of formal acceptance into the program, or 10 years for a doctoral program, admission expires and the student must reapply for admission.

All credits counted toward a master's degree, including transfer credit, must be earned within the consecutive seven-year period prior to graduation. All credits counted toward a doctoral degree, including transfer credit, must be earned within the consecutive 10-year period prior to graduation.

Students must meet the enrollment requirements in effect for courses at the time they enroll in each course. These requirements would include all catalog pre- or co-requisites for the course, as well as other registration restrictions at the time the course is taken.

Change of Degree

Graduate students who wish to change degree programs must apply for admission to the new program through the Office of Admissions and pay the appropriate fee. This applies both to changes between colleges and to different degrees within the same school or college (such as a change from the MFA in Creative Writing to the MA in English). However, this policy does not apply to changes between certificate and degree programs within a given field or college (such as from a Graduate Certificate in Educational Leadership to an MEd). Students will be expected to meet all admission and program requirements of the new major or emphasis area.

Change of Major or Emphasis Area

Students who wish to change majors or emphasis areas within the same degree and college should submit a Graduate Change of Major or Emphasis Area Form to the Graduate School for approval. Students will be expected to meet all admission and program requirements of their new major or emphasis area and must submit a revised official GSP to the Graduate School through their advisor/committee within one semester.

Concurrent Degrees

Students may pursue concurrent degrees as long as they have formally applied and been accepted to each program through the Office of Admissions.

Students may be admitted to or complete graduate certificate requirements as they pursue a master's degree. Coursework used to obtain a graduate certificate, if accepted for inclusion in the GSP, may be used to satisfy requirements for a master's or doctoral degree.

Continuous Registration

Continuous registration is expected every semester as appropriate for the program, from admission through graduation, until all requirements for the degree are completed.

To make continuous progress in a graduate program, students have the following options:

- Register for at least 1 graduate-level credit applicable to their graduate degree, or
- Pay the continuous registration fee to remain active in the graduate program although not registered in any courses. Students are also expected to register or pay the continuous registration fee for the

summer if they use university facilities or consult with faculty during the summer.

The continuous registration deadline is the same as the deadline for registration for thesis, research, and independent study courses, i.e., the end of the ninth week of fall and spring semesters or the end of the seventh week of the summer semester.

Failure to undertake continuous registration may result in previously deferred (DF) grades taken for thesis research becoming permanent grades. Students not making continuous progress or not on an approved leave of absence (see Leave of Absence on this page) may be placed on academic probation (see Academic Standing on this page) or, in some cases, removed from graduate degree-seeking status.

Formal Acceptance to Graduate Degree Programs

Once all required admission documents have been received by the Office of Admissions, the student's admission packet is forwarded to the chair or designee of the specific program. The acceptance decision is made by the chair or designee, subject to review and approval by the Graduate School. The Graduate School then informs the Office of Admissions of the decision. The Office of Admissions sends a letter of acceptance directly to the applicant, accompanied by the official certificate of admission from the Graduate School. Acceptance does not establish candidacy in a graduate program (see General University Requirements for Graduate Degrees (p. 358) for more information).

Full-Time/Part-Time Status for Graduate Degree Programs

A student who has been admitted to a UAA graduate program and is enrolled for 9 or more 600-level credits is classified as full-time. Any graduate-level course in which the student enrolls in any semester and is listed on the approved GSP and is counted toward their degree potentially contributes to full-time status. This includes coursework taken at other universities or abroad (see Transfer Credits on this page).

A graduate student enrolled at UAA for 5 to 8 credits is classified as half-time. Courses at the 400-level will count toward full-time or half-time status if they are listed on the approved GSP. For financial aid purposes, a graduate student enrolled at UAA for fewer than 5 credits is classified as part-time. Audited courses, continuing education units (CEUs), and continuous registration are not included in the computation of a student's full-time, half-time or part-time status.

Graduate Advisor

The chair or designee of the department offering the graduate program, with the approval of the Graduate School, appoints a graduate advisor for each student accepted to the program. The graduate advisor and the departmental chair will normally be from the same program unless prior approval has been made by the Graduate School. Assigned advisors must be certified annually in the Family Educational Rights and Privacy Act (FERPA) and must be registered with the Office of the Registrar. Students are expected to meet with advisors by the end of the first semester, or the equivalent of 6 credits of study, in order to plan their coursework.

Graduate Assistantships

Graduate assistantships provide students financial aid and meaningful opportunities to acquire valuable experience. They are available through programs offering graduate degrees in the following specific types: teaching assistantships, research assistantships, and service assistantships. Some research assistantships are referred to as fellowships. Teaching assistantships involve academic instruction or instructional support activities under the supervision of a faculty member. Research assistantships involve research or research support activities under the supervision of a faculty member. Service assistantships involve activities such as office duties, library services, residence hall duties, athletic services, or other academic or professional assignments.

A student must be in good academic standing to be awarded an assistantship (i.e. minimum 3.00 overall GPA). A graduate student with a GPA less than 3.00 for one semester may petition to continue as a graduate assistant with a maximum one-semester exception allowed per student. The petition by the student must be approved by the student's graduate committee chair, department head, school or college dean, and the Graduate School.

Teaching and service assistants must have FERPA training and research assistants must have training in responsible conduct of research. Performance reviews of graduate assistants may be required by individual programs.

Graduate assistants receive stipends for either a semester or for the academic year. Graduate assistants can be paid for a maximum of 20 hours per week while school is in session. Students with assistantships must be registered for at least 6 credits during the semesters of their award (audited credits may not be counted toward this minimum).

International graduate students must enroll in at least 9 credits due to SEVIS regulations. Incomplete (I) grades may affect the ability of students to receive tuition awards associated with graduate assistantships.

In addition to a stipend, teaching, research, and service assistantships award a tuition scholarship from the university for no more than 9 credits during each semester if the workload is 15 to 20 hours per week. If the workload is 10 to 14 hours per week, the tuition scholarship will cover no more than 5 credits. No tuition will be included if the workload is less than 10 hours per week. Tuition scholarships may be used for tuition only. All fees are the responsibility of the student unless the department or grant makes other arrangements with the UAA Bursar's Office prior to registration.

Graduate assistants receive a health insurance benefit paid on their behalf by the university. Graduate students must submit a copy of their contract letter to complete their health insurance enrollment process. Students who expect to have teaching, research, or service assistantships during an upcoming academic year may have health insurance paid by the relevant department, school or college for the preceding summer period.

A student may hold two graduate assistantships only if each of the assistantships is half-time (no more than 10 hours) during the period of overlap.

Graduate programs should provide prospective teaching and/or service assistants with notification of positions no later than August 1 for fall positions or December 1 for spring positions. Students are under no obligation to respond to such offers prior to April 30, but any acceptance of a position after April 30 requires the student to obtain a written release from the Graduate School should they desire an assistantship at another university.

Graduate Studies Committee

For graduate programs with a thesis, independent scholarship, or research project, the advisor and the student select a graduate studies committee as part of the process to complete the requirements of the graduate degree. Depending on the graduate degree, the committee minimally consists of three or four UAA faculty members, including the committee chair, who shall normally be a full-time faculty member. Committee members must be FERPA certified annually. Committee members and chairs whose status has changed to emeritus faculty may continue to serve on the committee. One faculty committee member may be from a discipline outside the student's school or college or UAA. Committee members who are not UAA faculty but have appropriate professional credentials may be included with the approval of the graduate advisor, the college dean, and the dean of the Graduate School. The committee members must agree to serve and the committee must be approved by the college dean and dean of the Graduate School by submitting the Graduate Committee Form. For doctoral degrees, an additional outside examiner is required to attend and evaluate the dissertation defense. For thesis-option students, graduate committees should be selected by the end of the second semester, or the equivalent of 18 credits of study, and should be listed on the initial GSP. Graduate committees should plan to meet at least twice during the academic year.

Responsibilities of Graduate Advisor/Committee

The division of responsibility between the graduate advisor and/or graduate committee is determined at the program level. The graduate advisor and/or graduate committee will do the following:

- Review and approve the graduate student's program, ensuring that it includes the General University Requirements for Graduate Degrees (p. 358); all courses required for the degree; research culminating in a thesis, independent scholarship or project, if required; a written or oral comprehensive examination; independent scholarship evaluation; thesis/project defense; any special program requirements; and arrangements to remove any deficiencies in the student's academic background.
- Monitor the student's progress, including grades, continuous registration, and timely submission of Annual Reports of Student Progress to the Graduate School.
- Review and approve requests for temporary leaves of absence, which, if approved, will result in the student being placed on inactive status.
- Review and approve any changes to the student's program of study.
- Review and approve the thesis, independent scholarship, or research project, including initial proposals, according to procedures established by the individual graduate program. The graduate advisor and/or committee are responsible for ensuring that thesis content, language and formatting follow the requirements in the UAA Thesis Formatting Handbook (see the Graduate School website (http://www.uaa.alaska.edu/graduateschool/)) as well as the style manual appropriate to the particular discipline.
- Administer and assess the qualifying examination, independent scholarship evaluation, or thesis/project defense.

Graduate Studies Plan

The official graduate studies plan (GSP) formally establishes the specific program requirements which will, upon satisfactory completion, entitle the student to receive a graduate degree. The plan is based upon the catalog requirements for the graduate degree program to which the student has been accepted. All graduate courses and leveling courses taken must be listed on the GSP as noted in DegreeWorks. An initial individualized GSP should be submitted by the end of the first semester of study. The plan becomes official once it is approved by the student's advisor. GSPs following catalog requirements do not have to be entered. Students are expected to complete all requirements listed on their official GSP, as well as all General University Requirements for Graduate Degrees (p. 358). The final individualized GSP must be approved by the Graduate School at the time of application for graduation (for doctoral students, the Advancement to Candidacy Form serves as the final GSP). Courses listed on the final GSP reflect catalog requirements in effect during the seven years after formal acceptance to a master's program or 10 years after formal acceptance to a doctoral program (see Catalog Year on this page). All GSPs are submitted electronically through DegreeWorks, except for the initial interdisciplinary studies GSP, which is part of the application process. Once admitted, interdisciplinary students must have their approved GSP entered in DegreeWorks.

Leveling Coursework

The program may require that students remedy certain deficiencies. The program will determine early in the course of study both how to remedy the deficiencies and the minimum level of performance required. Leveling courses will be noted in the DegreeWorks but will not be listed on the final GSP.

Concentrations

Individual graduate programs may offer concentrations, options, tracks, or emphases within their disciplines. Graduate students who have completed a minimum of 9 unique credits in such a concentration will have this noted on their official transcripts.

Leave of Absence

While graduate students are expected to make continuous progress toward the completion of their graduate programs, there are instances where continuous registration is not possible. Students who need to temporarily suspend their studies must obtain an approved leave of absence. Students on a leave of absence do not have access to the use of university facilities. Students who fail to obtain a leave of absence will be removed from degree-seeking status and must apply for reinstatement (if they are in good standing when they suspend their studies) before resuming graduate studies. Requests for leave

should be submitted no later than the add/drop deadline. Extenuating circumstances will be reviewed on a case-by-case basis.

A graduate student may be removed from degree-seeking status if the requirements to remove provisional admission or probation are not satisfied, the student has not been continuously registered for more than two academic years, or if minimum academic standards and continuous progress are not met.

The change in status may be initiated by the Office of the Registrar, the Graduate School, and/or by the student's graduate program.

Non-Degree-Seeking Students

Non-degree-seeking students who wish to register for graduate courses must have the department chair's or faculty member's approval. Registration as a non-degree-seeking student implies no commitment by the university to the student's later admission to a degree program. Up to 9-semester credits of graduate-level coursework may be completed in the student's graduate program before program matriculation. No more than 9 graduate-level credits may be taken in a student's graduate degree program as a non-degree-seeking student. Non-degree-seeking students do not qualify for federal or state financial aid benefits, nor do they qualify to receive a Form I-20 Certificate of Eligibility for Nonimmigrant (F-1) Student Status.

Reinstatement to Graduate Degree-Seeking Status

A graduate student who fails to register for at least one graduate or 400-level credit per semester as listed on their official Graduate Studies Plan (GSP) for two consecutive semesters; voluntarily withdraws from the program, or fails to obtain an approved Leave of Absence will have to apply for Reinstatement before resuming graduate studies. Students seeking re-enrollment in multiple degree programs must file a reinstatement application for each program. Eligibility for Reinstatement is only valid up to six semesters, inclusive of summer semesters, beyond the last semester of attendance. If beyond six semesters, the student must apply for graduate studies with a new Graduate School application to the program.

To be considered for reinstatement, a student must be in good standing (with a minimum cumulative GPA of 3.00) during their last semester of attendance and pay the fee for reinstatement.

The decision to approve or deny reinstatement into the original degree program is made by the student's home department. Departments are not obliged to approve the reinstatement of students. Decisions may be based on the applicant's academic status when last enrolled; activities while away from campus; the length of absence; the perceived potential for successful completion of the program; the ability of the department to support the student both academically and financially; as well as any other factors or considerations regarded as relevant by the department or program.

International students should contact UAA International Student Services regarding information about F-1 and J-1 federal regulations. Students should allow approximately six weeks for processing before requesting reinstatement to their program.

Reinstatement does not negate the policy that requires that all credits counted toward a master's degree, including transfer credits, be earned within a consecutive seven-year period prior to graduation, and that all credits counted toward a doctoral degree, including transfer credits, be earned within a consecutive 10 year period prior to graduation.

Removal from Graduate Degree-Seeking Status

A graduate student's academic status may be changed to non-degree-seeking if the requirements to remove provisional admission or probation are not satisfied, or if minimum academic standards are not met.

Resident Credit

Resident credit at UAA is defined as credit earned in formal classroom instruction, distance-delivered courses, directed study, independent study or research through any unit of UAA. Credit from an institutionally accredited domestic institution or equivalent institution for which there is an approved affiliation or exchange agreement is also considered resident credit.

If a program is delivered collaboratively with UAF or UAS, collaborative program credit from each participating institution is counted toward fulfillment of residency requirements.

Transfer Credits

Coursework used to obtain a graduate certificate or a master's degree may be used to satisfy requirements for a graduate degree at UAA if accepted as part of the official GSP.

Up to 9 semester credits not used toward an undergraduate degree may be transferred to UAA from an accredited institution and counted toward a graduate degree. Up to 9 graduate credits may also be transferred in the case of a second master's degree, although doctoral degree credits may not be used toward an additional master's degree unless that degree is in a distinctly different field. Up to 21 previously attained graduate credits may be transferred in the case of a doctoral degree. The Graduate School dean or designee may allow credit earned at other universities within the UA system, excluding thesis credit and credits used toward another degree, to satisfy UAA program requirements, as long as at least 9 credits applicable to the student's program are earned at UAA after acceptance into that program. Acceptance of transfer credit toward graduate program requirements must be approved by the individual program faculty, college dean and Graduate School.

Graduate Certificates

General University Requirements

General University Requirements (GURs) for all graduate certificates are as follows:

1. A student must be admitted to the certificate program and establish an approved graduate studies plan (GSP). Students must fulfill all GURs, college requirements and certificate program requirements.
2. No fewer than 12 nor more than 29 credits may be required for any graduate certificate.

3. The student must complete all requirements established by individual programs, as specified in the current UAA Catalog.
4. A cumulative GPA of at least 3.00 (B) must be earned in courses identified on the official GSP.
5. Only 400- and 600-level courses approved by the student's graduate certificate advisor/committee and the dean or designee, may be counted toward graduate certificate requirements.
6. In 400-level courses, a minimum grade of B is required for the course to count toward the certificate program requirements.
7. Courses at the 500 level are for professional development and are not applicable toward any certificate, even by petition.
8. In 600-level courses, a grade of C is minimally acceptable, provided the student maintains a cumulative GPA of 3.00 (B) in all courses applicable to the graduate certificate program. At least two-thirds of the credits required for the certificate must be taken at the graduate level (600). For performance comparison only, in 600-level courses, a grade of P (pass) is equivalent to a minimum grade of B, but does not enter into the GPA calculation.
9. Up to one-third of the semester credits used to complete the requirements of a graduate certificate may be transferred to UAA from an institutionally accredited institution. Acceptance of transfer credit toward program requirements is at the discretion of the individual program.
10. At least one third of the credits used to satisfy graduate certificate requirements must be UAA resident credit completed after acceptance into the program.
11. Courses taken by credit by examination or graded credit/no credit (CR/NC) do not count toward graduate certificate requirements. They may, however, be used to satisfy prerequisites or to establish competency in a subject, thus allowing the advisor or committee to waive certain courses in an established program, as long as the total credits in the graduate certificate program remain the same.
12. All credits counted toward the graduate certificate, including transfer credits, must be earned within the consecutive seven-year period prior to graduation.
13. If the requirements for a graduate certificate are not met within seven years of formal acceptance into the program, admission expires and the student must reapply for admission and meet the admission requirements in effect at that time (see Catalog Year in Graduate Certificate Policies (p. 365)).

Graduate Certificate Policies

A graduate-level certificate program is a coherent sequence of related graduate courses. These programs are designed to provide graduate education past the baccalaureate level and/or to enhance the education of students who have already completed a master's degree. Students will complete a linked series of courses, which may include a capstone experience or project that focuses their intellectual experience. Upon completion of a certificate, students will have acquired an area of specialization or an interdisciplinary perspective. Success in graduate-level certificate programs prepares students to better accomplish the goals of their discipline.

Academic Appeals

Students have the right to appeal academic actions related to graduate certificates. See the Academic Dispute Resolution Procedure (p. 16) for more information.

Academic Standing

A graduate certificate-seeking student who maintains a 3.00 (B) cumulative GPA in courses on their official graduate studies plan (GSP) is considered in good standing.

Additional Graduate Certificates

Students who have received a graduate certificate or master's degree from UAA or another institutionally accredited college or university may earn a UAA graduate certificate by completing at least one-third of the certificate credit requirements (e.g., 4 credits for a 12-credit certificate program or 9 credits for a 27-credit certificate program) in residence at UAA and after admission to the certificate program. Credits previously used for any undergraduate certificate or degree may not be used to satisfy graduate certificate program requirements. Multiple graduate certificates may be awarded only if they differ by at least one-third of their credit requirements.

Catalog Year for Graduate Certificate Programs

Each student's term of admission/catalog year is established when the student is formally admitted as a certificate- or degree-seeking student. A student's term of admission/catalog year is adjusted if the student formally postpones admission or reapplies after formal admission expires.

Students may elect to graduate under the requirements of any catalog in effect during the seven years after formal acceptance to the certificate program.

If the requirements for the certificate are not met within seven years of formal acceptance into the program, admission expires and the student must reapply for admission.

All credits counted toward the certificate, including transfer credit, must be earned within the consecutive seven-year period prior to graduation.

Students must meet the enrollment requirements in effect for courses at the time they enroll in each course. These requirements would include all catalog prerequisites or corequisites for the course, as well as other registration restrictions at the time the course is taken.

Change of Graduate Certificates

Graduate students who wish to change certificate programs within a college or program must complete a Change of Graduate Degree or Emphasis Area Form and pay the appropriate fee. This applies both to changes between schools or colleges and to different certificates within the same school or college. Students will be expected to meet all admission and program requirements of their new major or emphasis area.

Concurrent Graduate Certificates

Students may pursue concurrent graduate certificates as long as they have formally applied and been accepted to each program through the Office of Admissions.

Formal Acceptance to Graduate Certificate Programs

Once all required admission documents have been received by the Office of Admissions, the student's admission packet is forwarded to the chair or designee of the specific program. The acceptance decision is made by the chair or designee, subject to review by the Graduate School. The Graduate School then informs the Office of Admissions of the decision. The Office of Admissions sends a letter of acceptance directly to the applicant, accompanied by an official Certificate of Admission from the Graduate School. Acceptance to a graduate certificate program does not guarantee later admission to other graduate certificates or degrees.

Full-Time/Part-Time Status for Graduate Certificate-Seeking Students

A student who has been admitted to a UAA graduate certificate program and is enrolled at UAA for 9 or more 600-level credits is classified as full-time. A graduate certificate student enrolled at UAA for 5-8 credits is classified as half-time. Courses at the 400 level will count toward full-time status only if they are applicable to the graduate certificate program, i.e., listed on the graduate studies plan (GSP). For financial aid purposes, a graduate certificate student enrolled at UAA for fewer than 5 credits is classified as part-time. Audited courses, continuing education units (CEUs), and professional development courses (500 level) are not included in the computation of the student's full-time, half-time or part-time status.

Graduate Certificate Advisor

The chair or designee of the department offering the graduate program, with the approval of the Graduate School, appoints a graduate advisor for each student accepted to the program. Assigned advisors must be certified annually in the Family Education Rights and Privacy Act (FERPA) and must be registered with the UAA Office of the Registrar.

Responsibilities of the Graduate Certificate Advisor/ Committee

The division of responsibility between the advisor and/or committee is determined at the program level. Committee members must be annually certified in FERPA. The graduate certificate advisor and/or committee will do the following:

1. Review and approve the student's GSP, ensuring that it includes the General University Requirements for Graduate Certificates (p. 364); all courses required for the certificate; any special program requirements; and a capstone experience or project, if required.
2. Arrange to remove any deficiencies in the student's admission or academic background.
3. Monitor the student's progress and timely completion of all requirements.
4. Monitor the timely submission of the official GSP and other documents to the Graduate School.
5. Review and approve any changes to the official GSP. The Graduate School will forward the original and final documents to the Office of the Registrar.
6. Review and approve the capstone experience or project according to procedures established by the individual program.
7. Administer and assess a comprehensive examination, if required.

Graduate Certificate Transfer Credits

Up to one-third of the semester credits (e.g., 4 credits for a 12-credit certificate program or 9 credits for a 27-credit certificate program) or the equivalent earned at an institutionally accredited institution and not previously used to obtain any undergraduate degree or certificate may be transferred to UAA and accepted toward a graduate certificate. Acceptance of transfer credits toward program requirements is at the discretion of individual programs.

Non-Degree-Seeking Students

Non-degree-seeking students who wish to register for graduate courses must have the department chair's or faculty member's signature for each course taken. Registration as a non-degree-seeking student implies no commitment by the university to the student's later admission to a graduate certificate program. Up to one-third of the credits of graduate certificate coursework may be completed in the student's graduate certificate program before program admission. Non-degree-seeking students do not qualify for federal or state financial aid benefits, nor do they qualify to receive a Form I-20 Certificate of Eligibility for Non-immigrant (F-1) Student Status.

Reinstatement to Graduate Certificate-Seeking Status

Students who have been removed from graduate certificate-seeking status for failure to make satisfactory progress must re-apply for a graduate certificate program and pay the appropriate fee after one calendar year from the semester in which they were removed. When re-applying for a graduate certificate program, it is the student's responsibility to demonstrate the ability to succeed in that program. Readmission may be conditional on maintaining minimum academic standards within the first semester of study.

Removal from Graduate Certificate-Seeking Status

A graduate certificate student's academic status may be changed to non-certificate-seeking if the requirements to remove provisional admission are not satisfied or if minimum academic standards are not met.

A graduate certificate student whose cumulative GPA falls below 3.00 (B) in courses applicable to their graduate certificate program, or a graduate certificate student who, for reasons specified in writing, is not making satisfactory progress toward completing the program requirements, may be removed from graduate certificate-seeking status. Each school or college has developed procedures to deal with appeals arising from the removal from graduate certificate-seeking status.

College of Arts and Sciences

College of Arts and Sciences

Department of Anthropology and Geography (https://www.uaa.alaska.edu/academics/college-of-arts-and-sciences/departments/anthropology-and-geography/)
Beatrice McDonald Hall (BMH)
(907) 786-1298

Department of Biological Sciences (https://www.uaa.alaska.edu/academics/college-of-arts-and-sciences/departments/biological-sciences/)
ConocoPhillips Integrated Science Building (CPSB), Room 101
(907) 786-1298

Department of English (https://www.uaa.alaska.edu/academics/college-of-arts-and-sciences/departments/english/)
Administration/Humanities Building (ADM), Room 101
(907) 786-4355, cas.humanities@alaska.edu

Department of Geological Sciences (https://www.uaa.alaska.edu/academics/college-of-arts-and-sciences/departments/geology/)
ConocoPhillips Integrated Science Building (CPSB), Room 101
(907) 786-1298, uaa_geosciences@alaska.edu

Department of Psychology (https://www.uaa.alaska.edu/academics/college-of-arts-and-sciences/departments/psychology/)
(907) 786-1640

Master of Arts in Applied Anthropology

The Master of Arts (MA) in Applied Anthropology provides students with a rigorous background in contemporary theory and practice in applied anthropology through advanced coursework, internships, and independent research. Students learn to apply anthropological concepts, methods, ethics and perspectives to the specific subfield of anthropology in which they practice. The cultural anthropology concentration identifies and assists in resolving current social issues in their cultural dimensions. The cultural resource management concentration involves the inventory, assessment, conservation, and interpretation of archaeological and historical sites and remains, and places of traditional cultural importance, as a part of a larger management and legal framework. Students must undertake either a research-based thesis or an applied project to complete the MA.

Admission Requirements

The deadline for application to the Master of Arts in Applied Anthropology is posted on the department website (https://www.uaa.alaska.edu/academics/college-of-arts-and-sciences/departments/anthropology-and-geography/graduate/admissions.cshtml/). Students seeking admission to the program must:

- Complete the Admissions Requirements for Graduate Degrees (p. 43).
- Have completed a minimum of 18 credits of undergraduate coursework in anthropology with a minimum GPA of 3.00. A completed baccalaureate degree in anthropology is preferred. *(Provisional admission is possible if this criterion is not met.)*
- Submit the following additional documentation:
  - Three letters of recommendation from professors or other professionals particularly qualified to attest to the applicant's qualifications for graduate study.
  - A letter of intent, including a brief statement of the applicant's research interests, career goals, and reasons for pursuing graduate study in anthropology at UAA.
  - A substantial paper or research proposal written by the applicant indicative of potential for graduate study.

Acceptance into the program is determined by the Anthropology Graduate Admissions Committee and is based on the prospective student's overall credentials and the availability of appropriate faculty for student research interests.

Applicants without the minimum credits of undergraduate coursework in anthropology or who have other important deficiencies identified in their undergraduate training may be provisionally admitted to the MA program. Provisionally-admitted students are notified of identified deficiencies and required to complete leveling coursework at UAA, normally within a period of one year, before admission to regular status in the program is conferred. In some cases, deficiencies can be made up at another academic institution. Provisionally-admitted students cannot receive graduate teaching assistantships, research assistantships, or departmental travel/research grants.

Prospective graduate students are strongly advised to contact potential research/advisor faculty at an early stage of their admission process. An initial advisor is assigned to students based on interests and other academic criteria.

Advising

All graduate students enrolled in the MA in Applied Anthropology program will have a faculty graduate advisor assigned upon acceptance in the program. The graduate advisor, which can be changed to another faculty member, will assist the student through all aspects of the degree process, including:

- Mentoring the student throughout the graduate degree duration.
- Approving core coursework electives and the research capstone option.
- Overseeing the academic progress of the student.
- Guiding the student through the development and completion of the graduate thesis research or applied project.
- Working with the graduate committee to evaluate the final thesis or applied project.

Accelerated MA in Applied Anthropology Option

Students enrolled in either the Bachelor of Arts or Bachelor of Science in Anthropology at UAA who are interested in pursuing a Master of Arts in Applied Anthropology are encouraged to discuss the Accelerated MA in Applied Anthropology option with their academic advisor(s) and plan on applying for admission to the MA

in Anthropology during their junior year. Students admitted to the Accelerated MA in Applied Anthropology option may apply up to six (6) credits of approved 400-level electives from their BA or BS in Anthropology at UAA toward the graduation requirements of the MA in Anthropology. In addition to the Admission Requirements for Graduate Degrees listed above, the Accelerated MA in Applied Anthropology option applicant must:

- Be admitted to the BA or BS in Anthropology at UAA.
- Have completed at least 60% of the credits toward the BA or BS in Anthropology requirements.
- Have a minimum GPA of 3.00 for all coursework in ANTH.

Academic Requirements

A full-time student in the MA program is expected to complete a minimum of 9 credits (or 6 in the final semester of coursework) applicable to the program per semester with a minimum cumulative GPA of 3.00. Part-time students must complete at least 3 credits per semester and maintain a minimum cumulative GPA of 3.00. Upon completion of all required core coursework, students must enroll in continuing registration credits in fall and spring semesters. Failure to comply may result in the student being removed from the program. The same is true of students who fail to satisfy provisional-admission conditions within two years of admission. In addition, students must complete all core coursework within five years unless on an approved leave of absence. Such leaves of absence may not total more than four semesters.

Graduation Requirements

- Complete the General University Requirements for Graduate Degrees (p. 358).
- Submit an application for graduation (p. 30).
- Complete the program requirements below. Students admitted to the Accelerated MA in Applied Anthropology option may apply up to six (6) credit hours of approved 400-level electives from their BA or BS in Anthropology at UAA toward the graduation requirements of the MA in Anthropology.

Program Requirements

All graduate students must complete the core coursework for one of the applied program concentrations, and then, in consultation with their graduate advisor, must choose and complete one of the research capstone options (research-based thesis or applied project).

Core Coursework

Complete the core coursework requirements for an applied program concentration in Cultural Anthropology or Cultural Resource Management:

Code	Title	Credits
Cultural Anthropology		
ANTH A610	Anthropological Theory	3
ANTH A615	Advanced Applied Anthropology	3
ANTH A630	Advanced Social Science Research Methods	3
ANTH A658	Advanced Applied Ethics in Anthropology	3
ANTH A687	Advanced Field Methods in Cultural Anthropology	3
or ANTH A695	Anthropology Practicum	
Complete core coursework from electives [1]		9
Total		**24**

Code	Title	Credits
Cultural Resource Management		
ANTH A611	Archaeological Theory	3
ANTH A658	Advanced Applied Ethics in Anthropology	3
ANTH A677	Cultural Resource Management	3
ANTH A680	Advanced Analytical Techniques in Archaeology and Bioanthropology	4
ANTH A695	Anthropology Practicum	2-3
or ANTH A631	Advanced Field Methods in Archaeology and Bioanthropology	
Complete core coursework from electives [1]		9
Total		**24-25**

[1] *Elective courses should be approved by the student's graduate advisor, and students are encouraged to include at least one course from outside the field of anthropology. Students in the Cultural Resource Management concentration, who intend to work in the field, are also encouraged to take GEOG A670 as an elective. No more than 6 credits of 400-level coursework can be applied as elective courses. No more than 6 credits combined of ANTH A695 or ANTH A697 may be applied to the degree.*

Research Capstone Options

Complete one of the following capstone options:

Code	Title	Credits
Research-Based Thesis		
ANTH A620	Research Design	1
ANTH A698	Individual Research	2-3
ANTH A699T	Thesis Research	3-6
Total		**6-10**

The thesis research must:

- Be proposed in a written prospectus, which is presented and defended before the anthropology faculty, that consists of an explicit thesis statement, a literature review, and methodology.
- Describe how the work is associated with and contributes to the state of knowledge in the student’s concentration of applied anthropology.

- Demonstrate command of the knowledge, skills, and ethical standards associated with the student's concentration in applied anthropology.
- Demonstrate specific research, statistical, or language competencies as deemed necessary by the student's graduate advisory committee. This could include but is not limited to: statistics, qualitative data analysis (QDA), discourse or other linguistic techniques, computer skills, photogrammetry, SEM image analysis, GIS analysis, a specific technical research skill, and/or non-English language proficiency as appropriate.
- Be submitted to and approved by the graduate advisory committee as a written thesis, conforming to UAA specifications.
- Be defended in an oral presentation to the student's graduate committee, open to the university community and the general public.

Code	Title	Credits
Applied Project		
ANTH A620	Research Design	1
ANTH A698	Individual Research	2-3
ANTH A699P	Applied Capstone Project	3-6
Total		**6-10**

The applied project must:

- Be proposed in a written prospectus, which is presented and defended before the anthropology faculty, that consists of an explicit problem statement, a literature review, and methodology.
- Contribute to understanding and/or solving an applied or practical problem in a real-life context.
- Include techniques and methods consistent with applied anthropological practice, including community engagement and partnership.
- Demonstrate specific research, statistical, or language competencies as deemed necessary by the student's graduate advisory committee. This could include but is not limited to: statistics, qualitative data analysis (QDA), discourse or other linguistic techniques, computer skills, photogrammetry, SEM image analysis, GIS analysis, a specific technical research skill, and/or non-English language proficiency as appropriate.
- Be submitted to and approved by the graduate advisory committee as a project report that demonstrates command of the knowledge, skills, and ethical standards directly associated with the student's concentration in applied anthropology and makes evident the primacy of the student's contributions in the project.
- Be presented orally to the student's graduate committee in a presentation open to the university community and the general public.

A minimum of 30 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with a Master of Arts in Applied Anthropology will be able to:

- Demonstrate graduate-level knowledge of core concepts and research methods in the selected applied program concentration.
- Articulate key ethical considerations and responsibilities in applied anthropological research.
- Design, conduct, analyze, and present applied anthropological research within the conventions of the selected program concentration and acceptable to the faculty of the anthropology department.

Master of Science in Applied Geological Sciences

Graduate study in applied geological sciences prepares students for work in the multitude of careers including environmental geology/sciences, oil and gas industry, minerals and mining, and state and federal agencies that require a deep and broad foundation in the geological sciences. The Master of Science in Applied Geological Sciences (MSAGS) implies not only an enhanced level of understanding of the fundamentals of geological sciences, but also an applied skill set that allows students to apply advanced concepts of geological sciences to problem solving.

The MSAGS has both a thesis and a non-thesis option. The thesis option includes a focus on skills related to the acquisition of new knowledge and is designed for students who wish to pursue higher entry-level positions into jobs or to eventually pursue a Ph.D. degree. The non-thesis option is designed for students who wish to further emphasize applied geological sciences and prefer to substitute additional classroom education and a comprehensive written exam or a professional project and comprehensive oral exam for graduate research experience.

Program Objectives

The UAA applied geological sciences graduate program objectives are to provide students with graduate-level:

- Technical knowledge within geological sciences.
- Ability to conceive and conduct geological sciences research and problem solving.
- Ability to effectively communicate geological sciences concepts and applications to a broad audience.

Admission Requirements

Complete the Admission Requirements for Graduate Degrees (p. 43). Additional information can be found on the Geological Sciences Department website (https://www.uaa.alaska.edu/academics/college-of-arts-and-sciences/departments/geology/academic-programs/graduate.cshtml/). All students must hold a baccalaureate degree in geological sciences or closely related discipline and submit to the UAA Office of Admissions:

- A completed UAA graduate application.
- Official transcripts of all college-level work.

- Three letters of recommendation from professors or other professionals particularly qualified to attest to the applicant's qualifications for graduate-level research and study.
- A resume or curriculum vitae.
- A one-page personal statement discussing the applicant's credentials and readiness for graduate studies. This is an opportunity for the applicant to share relevant information, qualifications, and experience that would not be included with the UAA graduate application form or reflected on official transcripts. It is also the applicant's opportunity to describe their desire and commitment to pursue graduate study in geological sciences.

The application deadline for consideration of teaching assistantship funding in the fall semester is March 1.

Advising

All graduate students enrolled in the MSAGS program must have an academic advisor identified prior to acceptance in the program. The academic advisor will assist the student through all aspects of the degree process, including:

- Mentoring the student throughout the graduate degree duration.
- Approving a graduate studies plan.
- Overseeing the academic progress of the student.
- Guiding the student through the development and completion of the graduate thesis project or professional project, where applicable.
- Working with the graduate committee to evaluate the final thesis or professional project, or to develop and implement a comprehensive written exam, where applicable.

Graduation Requirements

- Complete the General University Requirements for Graduate Degrees. (p. 358)
- Complete the following program requirements:

Thesis Option

Students must satisfy all university requirements for graduate degrees and complete coursework and thesis work approved in advance by the student's academic advisor and graduate committee.

Students must complete a total of 30 credits of coursework, of which at least 24 credits must be at the 600-level. Up to 6 credits of 400- or 600-level coursework in related disciplines may count toward the degree if not used to fulfill any requirements of a baccalaureate degree. Coursework selected by the student must be approved by the student's graduate committee and must appear on the student's Graduate Studies Plan.

Code	Title	Credits
1. Complete 15 credits of Geological Sciences courses from the following:		15
GEOL A636	Advanced Petroleum Geology	
GEOL A637	Advanced Depositional Systems and Dynamic Stratigraphy	
GEOL A641	Paleoclimatology	
GEOL A648	Advanced Structural Geology and Geomechanics	
GEOL A661	Advanced Geochemistry	
GEOL A663	Environmental Geochemistry	
GEOL A676	Applied Geophysics	
GEOL A677	Integrated Subsurface Mapping and Analysis	
GEOL A678	Petroleum Geophysics and Petrophysics	
GEOL A690	Graduate Topics in Geology	
2. Complete the following professional practices course:		3
GEOL A689	Geology Graduate Professional Practices	
3. Complete 3 credits of geological sciences graduate thesis and at least 3 credits of graduate directed research:		6
GEOL A698	Directed Research	
GEOL A699	Graduate Thesis	
4. Complete a minimum of 6 credits of elective courses, which may consist of 600-level courses in the department (including additional credits in GEOL A698) or 400- or 600-level courses outside of the department that are relevant to the degree and which have been approved on the Graduate Studies Plan.		6
5. A written thesis proposal, submitted to the student's graduate committee by the beginning of the third semester, presenting evidence that the thesis requirements will be satisfied. The proposal will consist of an explicit problem statement, a literature review, and one or more sections describing the research and analytical methods that will be applied. The proposal is subject to approval by the student's graduate committee following an oral thesis proposal presentation scheduled no sooner than two weeks after submission of the written proposal.		
6. Thesis document and oral thesis defense.		
Total		**30**

A minimum of 30 credits is required for the degree.

The completed thesis must:

- Describe how the work is associated with the current state of the science in the candidate's graduate field of study.
- Contribute to the body of knowledge in the candidate's field of graduate study.
- Be eligible to be published in either peer-reviewed technical conference proceedings or a peer-reviewed journal as judged by the candidate's graduate committee.
- Demonstrate command of knowledge and skills associated with the candidate's program of graduate study and as stated in the Student Learning Outcomes.

- Be defended by the student in an oral presentation to the candidate's graduate committee.

Non-Thesis Option

Students must satisfy all university requirements for graduate degrees, complete coursework selected from one of three focus areas approved in advance by the student's graduate advisor, and complete either a professional project or additional coursework. Completion of a professional project requires the student to have a graduate committee.

Students must complete a total of 30 credits of coursework, of which 24 credits must be at the 600 level. Up to 6 credits of 400- or 600-level coursework in related disciplines may count toward the degree if not used to fulfill any requirements of a baccalaureate degree. Coursework selected by the student must be approved by the student's graduate advisor and must appear on the student's Graduate Studies Plan.

Code	Title	Credits
1. Complete at least 15 credits from one of the geological sciences focus areas below:		15
I. Applied Environmental Geology		
GEOL A637	Advanced Depositional Systems and Dynamic Stratigraphy	
GEOL A641	Paleoclimatology	
GEOL A648	Advanced Structural Geology and Geomechanics	
GEOL A661	Advanced Geochemistry	
GEOL A663	Environmental Geochemistry	
GEOL A676	Applied Geophysics	
II. Applied Petroleum Geoscience		
GEOL A636	Advanced Petroleum Geology	
GEOL A637	Advanced Depositional Systems and Dynamic Stratigraphy	
GEOL A648	Advanced Structural Geology and Geomechanics	
GEOL A661	Advanced Geochemistry	
GEOL A677	Integrated Subsurface Mapping and Analysis	
GEOL A676	Applied Geophysics	
GEOL A678	Petroleum Geophysics and Petrophysics	
III. Applied Mineral Resources		
GEOL A648	Advanced Structural Geology and Geomechanics	
GEOL A661	Advanced Geochemistry	
GEOL A663	Environmental Geochemistry	
GEOL A676	Applied Geophysics	
2. Complete the following professional practices course:		3
GEOL A689	Geology Graduate Professional Practices	
3. Complete 12 credits of electives, which may include 600-level courses in the department and up to 6 credits of 400- or 600-level courses in a related supporting discipline as approved by the student's graduate advisor. 3 credits of GEOL A688 may be applied toward this requirement.		12
4. Successfully complete a comprehensive written exam or a professional project report and comprehensive oral exam.		
Total		**30**

A minimum of 30 credits is required for the degree.

The project must solve an applied or practical problem in the geological sciences to the extent that original developments by the student are evident in the project report.

- The project problem and solution must be explained in the context of the current state of the science by means of a thorough review of pertinent literature.
- The project must include advanced technical components directly involving modern practice and applications of geological sciences.
- The project must have sufficient scope to clearly demonstrate the student's advanced technical expertise in geological sciences.
- The project report must demonstrate command of knowledge and skills directly associated with the student's graduate program of study and chosen focus area (I, II, or III above).
- The project proposal, submitted prior to enrolling in GEOL A688, must present evidence that the above requirements will be satisfied and will generally consist of an explicit problem statement, a literature review, and methodology.
- The final project will be in the form of a written report and oral presentation to the student's graduate committee.

Program Student Learning Outcomes

In keeping with the program objectives, the expected student learning outcomes of the UAA MSAGS program include an ability to:

- Use rigorous methods of scientific analysis.
- Demonstrate mastery of graduate-level geological sciences theory.
- Conduct advanced geological sciences research and/or demonstrate skill application.
- Apply the scientific method to graduate-level problems in one or more focus areas of geological sciences.
- Work effectively within the professional framework of geological sciences careers or be prepared for Ph.D. research programs.

Master of Science in Biological Sciences

The graduate program in biological sciences offers a research program of study leading to a Master of Science (MS). The MS has both a thesis and non-thesis option. The thesis option requires completion of a written thesis and public and private thesis defense resulting from research performed under the supervision of a UAA faculty member. The non-thesis option requires completion of a capstone under the supervision of a UAA faculty member and that the student pass a comprehensive written exam.

We recommend that prospective students review the program admission requirements, application deadlines for fall and spring admission, and

program expectations, which are detailed on the UAA Department of Biological Sciences webpage (https://www.uaa.alaska.edu/academics/college-of-arts-and-sciences/departments/biological-sciences/). General guidelines for prospective students can also be found on the UAA Graduate School webpage (http://www.uaa.alaska.edu/graduateschool/prospective/).

Admission Requirements

- Complete the Admission Requirements for Graduate Degrees (p. 43).
- Students must have a bachelor's degree in biology, chemistry or equivalent science as determined by the Graduate Affairs Committee.
- Applicants must have a minimum GPA of 3.00. Successful applicants ordinarily have no grade below a C in undergraduate science courses.
- Students seeking admission into the MS in Biological Sciences should follow the application guidelines detailed on the UAA Department of Biological Sciences webpage (https://www.uaa.alaska.edu/academics/college-of-arts-and-sciences/departments/biological-sciences/).

Accelerated MS in Biological Sciences Option

The Accelerated Master of Science in Biological Sciences option allows a maximum of twelve University of Alaska Anchorage credits of 400-level and/or 600-level coursework to double count toward the baccalaureate and master's degree. Courses must meet the graduation requirements detailed below. Students must receive a minimum grade of B in all 400-level courses, and a minimum grade of C in all 600-level courses, for the credits to count.

Students interested in pursuing an Accelerated MS in Biological Sciences option (for both thesis and non-thesis options) are encouraged to discuss the possibility with their prospective graduate advisor (see Admission Requirements detailed on the UAA Department of Biological Sciences webpage (https://www.uaa.alaska.edu/academics/college-of-arts-and-sciences/departments/biological-sciences/)).

In addition to the Admission Requirements listed above, the Accelerated MS in Biological Sciences option applicant must:

- Be currently enrolled at UAA.
- Have earned at least 24 credits at UAA.
- Have a minimum GPA of 3.00 in all coursework completed within the UA system.

Additionally, the letter of support from the prospective graduate advisor must detail and provide rationale for the course work that will be double counted toward the baccalaureate and master's degree.

The regular application deadlines apply for the Accelerated MS in Biological Sciences option.

Graduation Requirements (Thesis Option)

- Complete the General University Requirements for Graduate Degrees (p. 358).
- Complete 30 credits of coursework approved in advance by the student's graduate study committee (GSC).
- Satisfactorily complete thesis research as detailed in a written thesis proposal and approved in advance by the student's GSC.
- Submit a written graduate thesis that has been approved by the GSC, departmental director, and deans of the College of Arts and Sciences and the Graduate School.
- Pass an oral thesis defense.
- Students must receive a minimum grade of B in all 400-level courses and a minimum grade of C in all 600-level courses, provided that the cumulative GPA does not drop below 3.00.
- Complete the following program requirements:

Code	Title	Credits
BIOL A601	Experimental Design and Statistics	3
BIOL A605	Graduate Proseminar in Sciences	2
BIOL A606	Advanced Analysis and Interpretation [1]	3
BIOL A692	Graduate Seminar	1
BIOL A698	Directed Research [2]	9
BIOL A699	Thesis [2]	3
600-level science electives (does not include BIOL A698, BIOL A698A or BIOL A699 credits)		9
Total		**30**

[1] *This requirement can be substituted with 3 credits of 600-level science elective credits (but not including BIOL A698, BIOL A698A or BIOL A699 credits) with the approval of student's graduate study committee if the student has sufficient other experience or coursework in statistical analysis.*

[2] *While additional credits can be taken, a maximum of 9 credits for BIOL A698 and 3 credits for BIOL A699 will apply towards the 30 credits required for the degree.*

A minimum of 30 credits is required for the degree.

Additional Requirements for Thesis-based MS in Biological Sciences

- Within the first semester of study, each student must select a graduate study committee (GSC) consisting of a minimum of three members (no more than five is recommended). Two of the three members must be full-time, tenure-track faculty in the Department of Biological Sciences. The committee chair will be the student's primary research advisor if that person is a full-time UAA faculty member. If the primary research advisor is an affiliate faculty member, the chair will be shared with a full-time UAA faculty member from the Department of Biological Sciences, and both will be designated as co-chairs. To be a co-chair, a non-UAA faculty member must have official affiliate status within the department.

- A student's GSC must meet at least once each year to review a student's progress. The annual report on student progress (available online from the Graduate School) must be completed by the student and committee, signed by the GSC, filed with the graduate affairs administrative assistant, and submitted to the UAA Graduate School no later than **May 15** for students who started the program in the summer or fall semesters or **December 15** for students who started the program in the spring semester. Failure to file annual progress reports will be taken as an indication of inadequate progress, and is grounds for probation and subsequent dismissal from the program.
- Each student must submit a graduate studies plan (GSP) by the end of the first semester of graduate work. The GSP formally establishes the specific program requirements that will, upon satisfactory completion, entitle the student to receive the graduate degree or certificate. This GSP must be approved by the student's graduate study committee and also by the department director and the dean of the Graduate School.
- All graduate students must remain in good standing throughout their program. At a minimum, students not in good standing will not be able to compete for teaching assistantships or be awarded tuition waivers from the department, college or Graduate School. Students not in good standing risk being placed on probation and/or removed from the program. In order to remain in good standing in the program, students must:
  - maintain a minimum cumulative GPA of 3.00 in all coursework listed on their GSP;
  - file a GSP by the end of their first semester in residence; and
  - file satisfactory progress reports during each year in residence.
- Within their first year in the program, each graduate student is required to submit a written thesis proposal that details the plan for the student's graduate work. This document is developed in consultation with the graduate advisor, and once prepared must be submitted and approved by the student's graduate study committee. A copy of the approved proposal shall be placed in the student's departmental file.
- Students will conduct the research outlined in the thesis proposal and present their results as a graduate thesis following guidelines provided by the Graduate School. This written thesis must be approved by the GSC, the director of the Department of Biological Sciences, the dean of the College of Arts and Sciences, and the dean of the Graduate School in order to be considered complete. No student shall graduate without completing a written thesis.
- Following submission of their thesis to their GSC, students must present a thesis defense seminar, which will be followed by a private meeting with their graduate study committee to finalize the defense. The student must successfully defend the thesis in order to graduate.

Graduation Requirements (Non-thesis Option)

- Complete the General University Requirements for Graduate Degrees (p. 358).
- Complete 30 credits of coursework approved in the student's graduate study plan, as detailed below.
- Students must earn a minimum grade of B in all 400-level courses and a minimum grade of C in all 600-level courses, provided that the cumulative GPA does not drop below 3.00.
- Complete the following program requirements:

Code	Title	Credits
BIOL A601	Experimental Design and Statistics	3
BIOL A605	Graduate Proseminar in Sciences	2
BIOL A692	Graduate Seminar	1
BIOL A698A	Non-thesis Capstone Project [1]	6
600-level science electives (does not include BIOL A698, BIOL A698A or BIOL A699 credits)		15
ENGL A414	Research Writing [2]	3
Total		**30**

[1] *While additional credits can be taken, a maximum of 6 credits for BIOL A698A will apply towards the 30 credits required for the degree.*

[2] *An equivalent course can be substituted as approved by the student's graduate advisor.*

A minimum of 30 credits is required for the degree.

Additional Requirements for Non-thesis-based MS in Biological Sciences

- Within the first semester of study, each student must select a graduate advisor who is either a UAA faculty member or an individual eligible to be a UAA affiliate faculty member. If the primary advisor's main appointment is from outside the Department of Biological Sciences, there must be a co-advisor who is a full-time Department of Biological Sciences faculty member, and both will be designated as co-advisors.
- An annual report on student progress (available online from the Graduate School) must be completed by the student and advisor(s), filed with the graduate affairs administrative assistant, and submitted to the UAA Graduate School no later than **May 15** for students who started the program in the summer or fall semesters or **December 15** for students who started the program in the spring semester. Failure to file annual progress reports will be taken as an indication of inadequate progress, and is grounds for probation and subsequent dismissal from the program.
- Each student must submit a graduate studies plan (GSP) by the end of the first semester of graduate work. The GSP formally establishes the specific program requirements that will, upon satisfactory completion, entitle the student to receive the graduate degree or certificate. The GSP must be approved by the student's graduate advisor and also by the department director and the dean of the Graduate School.
- All graduate students must remain in good standing throughout their program. At a minimum, students not in good standing will not be able to compete for teaching assistantships or be awarded tuition waivers from the department, college or Graduate School. Students not in good standing risk being placed on probation and/or

removed from the program. In order to remain in good standing in the program, students must:
  - maintain a minimum cumulative GPA of 3.00 in all coursework listed on their GSP;
  - file a GSP by the end of their first semester in residence; and
  - file satisfactory progress reports during each year in residence.
- Within their first year in the program, each graduate student is required to submit a written capstone proposal that details the plan for the student's graduate work. This document is developed in consultation with the graduate advisor. A copy of the approved proposal shall be placed in the student's departmental file.
- Students will conduct the work outlined in the capstone proposal and present their results in written format (in quality similar to a manuscript suitable for publication). No student shall graduate without completing a capstone written document.
- Students must orally present the results of their capstone in a context available to the department and university community.
- Students must pass a written comprehensive exam.

Program Student Learning Outcomes

Students graduating with a Master of Science in Biological Sciences:

- Have mastered the fundamental concepts of biology, including cell and molecular biology, genetics, physiology, evolution and ecology.
- Will have a working knowledge of the principles of scientific methodology, of the methods and technology of biological research, of quantitative analysis of scientific data, and will be capable of writing a publishable scientific paper.
- Will have a demonstrated mastery of at least one focus area within biology or biochemistry.
- Are prepared for a career in biological sciences or are prepared to pursue more advanced research opportunities.

Graduate Certificate in Children's Mental Health

The Graduate Certificate in Children's Mental Health prepares graduate students and post graduates to practice children's mental health using principles and methods from interprofessional sources to assist in the mental health promotion, prevention, and treatment of children and their families. The certificate will strengthen competencies for work in social work, psychology, and other jobs that specialize in infant, early childhood, and/or adolescent children's mental health. The program builds on the knowledge and skills acquired through current or previous master's level study in these or related fields.

This graduate certificate is designed to supplement each student's existing experience and academic preparation through the way each candidate achieves the program outcomes. Therefore, few specific required courses are listed in the graduation requirements, since individual graduate studies plans may vary based on the specific interprofessional focus of each candidate. The faculty advisors will follow the program's academic preparation requirements to guide coursework selections. Students develop advanced knowledge and competencies for working with infant, early childhood, and/or adolescent children's mental health issues as well as interprofessional skills for working in Alaska's systems of care.

Admission Requirements

Applicants for the Graduate Certificate in Children's Mental Health must:

- Complete the Admission Requirements for Graduate Certificates (p. 43).
- Have graduated from or currently be students in an accredited or approved graduate program of social work, psychology, special education, or a related field.
- Have completed a course in child or human development.

Graduation Requirements

- Complete the General University Requirements for Graduate Certificates (p. 364).
- Complete the following program requirements with a minimum grade of B:

Code	Title	Credits
PSY/SWK A620	Advanced Infant/Early Childhood Mental Health	3
or PSY A638	Child Clinical Psychology	
PSY/EDSE/SWK A691	Children's Mental Health Systems of Care	3
Complete 3 credits of advisor-approved graduate-level coursework in each of the following areas:		6
Family systems and family-centered practice		
Specialty content coursework in children's mental or behavior health		
Total		**12**

A minimum of 12 credits is required for the certificate.

Program Student Learning Outcomes

The program is designed to expand specific skills and clinical experiences in children's mental health and allow students to expand their expertise through an interprofessional understanding of children's mental health practices. Specific infant/early childhood mental health (IECMH) competencies are also integrated into course content to address the workforce development needs. Outcomes for the program are based on state and national competency guidelines for children's mental health as well as the Alaska Infant and Early Childhood Mental Health competencies. Students who complete this program will be able to:

- Foster collaborative relationships with families using relationship-based, family-centered practices.
- Identify and implement culturally-responsive methods of screening and assessment in infant/early childhood and/or children's mental health.

- Apply theoretical knowledge to choose and implement evidence-based, culturally-responsive interventions and methods of evaluation in infant/early childhood and/or children's mental health.
- Describe systems of care and interprofessional practice related to children's mental health.
- Engage in reflective practice within one's own discipline.

Master of Science in Clinical Psychology

The Master of Science (MS) in Clinical Psychology is designed to be responsive to the needs of a variety of Alaska behavioral health service settings and to meet prerequisites for licensing requirements at the master's level in psychology or behavior analysis for the State of Alaska. The MS program has two tracks: a Clinical track and a Behavior Analysis track.

- The Clinical track allows graduates to pursue the licensed psychological associate (LPA) license (https://www.commerce.alaska.gov/web/cbpl/ProfessionalLicensing/BoardofPsychologists.aspx) in Alaska.
- For students completing an additional 12 credits of approved coursework with UAA, this program meets the educational requirements to pursue the licensed professional counselor (LPC) license (https://www.commerce.alaska.gov/web/cbpl/ProfessionalLicensing/ProfessionalCounselors.aspx) in Alaska.
- The Behavior Analysis track includes coursework that is part of an Association for Behavior Analysis International® verified course sequence (https://www.abainternational.org/vcs/directory/course-sequence-information.aspx?csid=d8bff660-c035-eb11-817b-000c29a8e632&pid=00000000-0000-0000-0000-000000000000&cl=&mdi=). The Behavior Analysis track prepares students to sit for the Board Certified Behavior Analyst® (BCBA®) (https://www.bacb.com/bcba/) examination to earn a nationally-recognized certification, a prerequisite for professional licensure (https://www.commerce.alaska.gov/web/cbpl/ProfessionalLicensing/BehaviorAnalysts.aspx) in the state of Alaska.

The goal of the program is to provide students with a well-rounded education that includes an evidence-based background in the best practices applicable to community mental health settings. The curriculum addresses local behavioral health needs in a context that is culturally-sensitive and community-focused.

This program is designed to meet the educational requirements for professional licensure or certification in the State of Alaska. However, the program might not meet the educational requirements for professional licensure or certification in other states. Please see UAA's Licensure and Certification website (https://www.uaa.alaska.edu/academics/office-of-academic-affairs/licensure.cshtml/) for more information.

Admission Requirements

- Complete the Admissions Requirements for Graduate Degrees (p. 43).
- The deadline to submit an application is posted on the department website (https://www.uaa.alaska.edu/academics/college-of-arts-and-sciences/departments/psychology/academic-programs/graduate/admissions.cshtml/). This is the only opportunity for program admission each year. Forms and instructions are available on the Psychology Department website (https://www.uaa.alaska.edu/academics/college-of-arts-and-sciences/departments/psychology/academic-programs/graduate/masters.cshtml/).
- Complete adequate prerequisite coursework for either the Clinical track or the Behavior Analysis track:
  - The Clinical track prepares students who plan to seek employment in agencies that provide counseling or master's level clinical psychology services or in private practice providing counseling or master's level clinical psychology services. Prerequisites for the Clinical track: undergraduate training in general psychology, statistics and research methods, learning or applied behavior analysis, abnormal psychology, behavioral neuroscience, clinical psychology, and psychological testing. Examples of UAA courses that meet these requirements are PSY A111, PSY A200 or PSY A468, PSY A260 and PSY A261, PSY A345, PSY A370, PSY A425, and PSY A473. Alternative courses and/or experiences will be considered. Applicants without an undergraduate degree in psychology must have met all prerequisites before admission. Applicants with an undergraduate degree in psychology who have not met all prerequisites may be admitted provisionally. Prerequisites must be completed successfully within the first year of admission to the program.
  - The Behavior Analysis track prepares students who plan to seek employment in agencies that provide behavior-analytic services. Prerequisites for the Behavior Analysis track include: undergraduate training in psychology, social work, education, justice, human services, or related fields. Students should have completed coursework in human development, learning, statistics and research methods, abnormal psychology, and behavioral neuroscience. Examples of UAA courses that meet these requirements are PSY A200 or PSY A468, PSY A260 and PSY A261, PSY A345, and PSY A370. Alternative courses and/or experiences will be considered. Applicants who have not met all prerequisites may be admitted provisionally. Prerequisites must be completed successfully within the first year of admission to the program.
- Submit a letter of intent describing the applicant's interest and purpose in pursuing the MS in Clinical Psychology. The letter should address the reasons why the degree is being sought at this point in the applicant's professional development. See instructions on the electronic application.
- Submit three professional letters of reference that address the applicant's suitability for the program.
- Complete disclosure Items and accompanying letter of explanation (if required) on the electronic application.
- Submit a resume or curriculum vitae (CV) that documents the applicant's vocational and professional experiences, academic achievements, research accomplishments, special projects,

recognitions, and other information relevant to the applicant's qualifications for the program.

- Department approval for admission to graduate study is contingent on the applicant's qualifications, interests, and available space.

Graduation Requirements

- Complete the General University Requirements for Graduate Degrees (p. 358). Students must meet all applicable university requirements and achieve a minimum grade of B in all coursework applied to the degree. Students in the Clinical track are required to comply with the American Psychological Association (APA) ethical guidelines throughout the program. Students in the Behavior Analysis track are required to comply with the Behavior Analyst Certification Board (BACB) Professional and Ethical Compliance Code throughout the program. Violation can result in immediate dismissal from the program.
- Complete the following program requirements:

Program Requirements for Clinical Track

Code	Title	Credits
PSY A604	Biological and Pharmacological Bases of Behavior	3
PSY A611	Ethics and Professional Practice	3
PSY A612	Human Development in a Cultural Context	3
PSY A622	Multicultural Psychopathology	3
PSY A623	Intervention I	3
PSY A624	Group Therapy	3
PSY A626	Family Therapy	3
PSY A627	Community-Based Intervention Skills	3
PSY A634	Applied Psychological Assessment	3
PSY A639	Research Methods	3
PSY A654	Cultural Issues in Psychotherapy	3
PSY A670	Psychotherapy Internship (must complete 6 credit hours)	6
PSY A681	Substances of Abuse in Alaska	1
PSY A682	Clinical Interventions for Substance Abuse	1
PSY A683	Substance Abuse Assessment and Treatment Planning	1
PSY A695C	Psychotherapy Practicum	3
Complete one of the following options:		**3-6**
Non-thesis Option:		3
Complete any UAA Psychology 600 level course		
Thesis Option:		6
PSY A699	Thesis	
Total		**48-51**

A minimum of 48 credits is required for the degree.

Program Requirements for Behavior Analysis Track

Code	Title	Credits
PSY A600	Strategies of Behavior Change	3
PSY A604	Biological and Pharmacological Bases of Behavior	3
PSY A610	Single Subject Research Designs	3
PSY A611B	Ethics for Behavior Analysts	3
PSY A612	Human Development in a Cultural Context	3
PSY A613	Behavioral Assessment	3
PSY A623	Intervention I	3
PSY A655	Interventions for Challenging Behavior	3
PSY A668 & A668L	Learning and Behavior and Learning and Behavior Laboratory	4
PSY A678	Advanced Applications of Behavior Analysis	3
PSY A695B	Applied Clinical Skills Practicum (must complete 6 credit hours)	6
Complete one of the following options:		**11**
Thesis Option:		
PSY A699	Thesis [1]	
Complete 5 credits from the list of electives below. [2]		
PSY A622	Multicultural Psychopathology	
PSY A639	Research Methods	
PSY A647	Advanced Behavioral Supports for Neurodivergence	
PSY A654	Cultural Issues in Psychotherapy	
PSY A667	Organizational Behavior Management	
PSY A681	Substances of Abuse in Alaska	
PSY A682	Clinical Interventions for Substance Abuse	
PSY A683	Substance Abuse Assessment and Treatment Planning	
PSY A690	Advanced Topics in Psychology	
Thesis-Equivalent Option:		
PSY A698	Individual Research [3]	
Complete 5-8 credits from the list of electives below. [2]		
PSY A622	Multicultural Psychopathology	
PSY A639	Research Methods	
PSY A647	Advanced Behavioral Supports for Neurodivergence	
PSY A654	Cultural Issues in Psychotherapy	
PSY A667	Organizational Behavior Management	
PSY A681	Substances of Abuse in Alaska	

PSY A682	Clinical Interventions for Substance Abuse	
PSY A683	Substance Abuse Assessment and Treatment Planning	
Total		**48**

[1] *Students in the thesis option must complete 6 credits of PSY A699. They may not take PSY A698 as an elective.*

[2] *Courses not in the list of electives may apply with advisor approval.*

[3] *Students in the thesis-equivalent option complete 3-6 credits of PSY A698.*

A minimum of 48 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with a Master of Science in Clinical Psychology will be able to:

- Apply a broad knowledge of contemporary psychology, with special emphasis on clinical psychology or behavior analysis.
- Demonstrate acceptable skills in research analysis (including writing and mastery of APA style).
- Demonstrate competence in basic clinical skills in psychology or behavior analysis sufficient to practice under general supervision.

PhD in Clinical-Community Psychology

The PhD in Clinical-Community Psychology is accredited by the American Psychological Association[1] as a clinical psychology program.

The PhD in Clinical-Community Psychology with Rural, Indigenous Emphasis integrates clinical, community, and cultural psychology with a focus on rural, Indigenous issues and an applied emphasis on the integration of research and practice. The program advances academic excellence, promotes innovative and practical research, and provides solid graduate training in clinical-community psychology.

The program ensures that graduates have obtained the full range of clinical training mandated for doctoral-level clinical psychologists and will be adequately prepared for licensure as psychologists. The program meets doctoral education requirements for licensure as a psychologist in the State of Alaska. This program is designed to meet the educational requirements for professional licensure or certification in the State of Alaska. However, the program might not meet the educational requirements for professional licensure or certification in other states. Please see UAA's Licensure and Certification website (https://www.uaa.alaska.edu/academics/office-of-academic-affairs/licensure.cshtml/) for more information.

More information is available on the program's webpage. (https://www.uaa.alaska.edu/academics/college-of-arts-and-sciences/departments/psychology/academic-programs/graduate/phd/)

[1]Questions related to the program's accredited status should be directed to the Commission on Accreditation:

Office of Program Consultation and Accreditation
American Psychological Association
750 1st Street, NE
Washington, DC 20002
(202) 336-5979
Email: apaccred@apa.org
Web: www.apa.org/ed/accreditation (http://www.apa.org/ed/accreditation/)

Admission Requirements

Complete the Admission Requirements for Graduate Degrees (p. 43).

Students apply to the Ph.D. in Clinical-Community Psychology program through the UAA Office of Admissions. All applicant materials are collected and evaluated by the admissions committee, which makes admissions recommendations to the dean of the UAA Graduate School. For more information about the application process, visit the program website (https://www.uaa.alaska.edu/academics/college-of-arts-and-sciences/departments/psychology/academic-programs/graduate/phd/).

1. The deadline to submit an application is posted on the program website (https://www.uaa.alaska.edu/academics/college-of-arts-and-sciences/departments/psychology/academic-programs/graduate/phd/admission.cshtml/). This is the only opportunity for program admission each year. Forms and instructions are available on the Psychology Department website (https://www.uaa.alaska.edu/academics/college-of-arts-and-sciences/departments/psychology/academic-programs/graduate/phd/admission.cshtml/). All application documents MUST be received by the application deadline.
2. Bachelor's degree (BS or BA or BEd); major in psychology or related field preferred. All requirements for bachelor's degree must be completed by June 30 prior to matriculation.
3. Minimum 3.00 GPA in major and in all psychology courses.
4. Coursework in the areas of psychopathology, statistics, research methods, and biological bases of behavior (e.g., behavioral neuroscience). All prerequisite coursework must be completed by June 30 prior to matriculation.
5. A detailed letter of interest and intent (https://www.uaa.alaska.edu/academics/college-of-arts-and-sciences/departments/psychology/academic-programs/graduate/phd/letter-of-intent-guidelines.cshtml/). This letter of intent requests information on clinical and/or community experience; research experience; interest in Rural and Indigenous Psychology; and a personal statement describing your professional goals and interests.
6. Professional vita, including documentation regarding academic, research, and professional experiences; special projects and activities; and recognitions or honors.
7. Three professional letters of reference (https://www.uaa.alaska.edu/academics/college-of-arts-and-sciences/departments/psychology/academic-programs/graduate/phd/rating-form-and-letter-of-support.cshtml/) (preferably curriculum or research advisors, major course instructors with whom the student had contact in more than one course, and/or supervisors).

8. Lifetime criminal background check must be submitted by students invited to a personal interview at least two weeks prior to the interview. Additional information on the Identity History Summary through the FBI is located on the program website (https://www.uaa.alaska.edu/academics/college-of-arts-and-sciences/departments/psychology/academic-programs/graduate/phd/prospective-students/admission.cshtml/). In addition to completing the identity history, applicants complete a disclosure statement as part of the Application for Admission.

Graduation Requirements

- Complete the General University Requirements for Graduate Degrees (p. 358).
- Complete the program and additional requirements below.

Students must complete the required courses, dissertation, internship and electives. Students must accumulate a minimum 115 credits to graduate and must have completed all required coursework. Graduate coursework completed at other universities cannot be used to waive required courses.

Cultural experience: During their time in the Ph.D. program, students must participate in a cultural experience as defined by program faculty. The actual experience will vary from year to year but includes direct exposure to Alaska Native and other cultural worldviews, values, and life experiences through contact with cultural elders and advisors in a non-classroom setting.

Code	Title	Credits
PSY A602	Native Ways of Knowing	3
PSY A604	Biological and Pharmacological Bases of Behavior	3
PSY A605	History and Systems	1
PSY A607	Cognition, Affect, and Culture	3
PSY A611	Ethics and Professional Practice	3
PSY A612	Human Development in a Cultural Context	3
PSY A616	Program Evaluation and Community Consultation I	3
PSY A617	Program Evaluation and Community Consultation II	3
PSY A622	Multicultural Psychopathology	3
PSY A623	Intervention I	3
PSY A629	Intervention II	3
PSY A632	Community Psychology Across Cultures	3
PSY A633	Tests and Measurement in Multicultural Context	3
PSY A639	Research Methods	3
PSY A640	Substance Abuse: Etiology, Treatment and Assessment	3
PSY A652	Practicum Placement - Clinical I	6
PSY A653	Practicum Placement - Clinical II	6
PSY A657	Quantitative Analysis	3
PSY A658	Qualitative Analysis	3
PSY A672	Practicum Placement - Community I	3
PSY A679	Multicultural Psychological Assessment I	3
PSY A684	Clinical Supervision and Consultation	3
PSY A687	Multicultural Psychological Assessment II	3
PSY A686	Doctoral Internship	18
PSY A698P	Research Project	3
PSY A699D	Dissertation	18
Electives		3
Total		**115**

A minimum of 115 credits is required for the degree.

Additional Requirements

Research Competency

Research competency is demonstrated through preparation of a research portfolio that will be evaluated by an ad hoc committee. Criteria for the research portfolio will be clearly defined and samples will be provided for students. Students must demonstrate research competency before advancing to candidacy and enrolling in dissertation credits.

Clinical Competency

Clinical competency is demonstrated through preparation of a clinical portfolio that will be evaluated by an ad hoc committee. Criteria for the clinical portfolio are clearly defined and samples will be provided for students. Students must demonstrate clinical and research competency before applying to advance to internship and must pass the clinical and research competency and pass their dissertation proposal defense before starting PSY A686.

Community Competency

Community competency is demonstrated through preparation of a community portfolio that will be evaluated by an ad hoc committee. Criteria for the portfolio will be clearly defined and samples will be provided for students.

Advancement to Candidacy

Before students are allowed to register for dissertation credits, they will be reviewed for performance by the committee, using existing university standards and forms for advancement to candidacy. Review will be based on faculty experience with the student to date, submitted paperwork, and the student’s progress through the program. Feedback from the review will be provided to the student by their advisor. To advance to candidacy, students must receive at least a conditional pass on their comprehensive exam. The program defines the comprehensive exam as being met through passing the required competency portfolios. Passing the research portfolio qualifies the student for a conditional pass on the comprehensive exam, which is sufficient for advancement to

candidacy. All portfolios must be passed for the comprehensive exam to be fully passed.

Doctoral Dissertation Proposal Defense

Before commencing data collection for a dissertation project, students must defend their proposal to their dissertation committee. The defense must be based on a written dissertation proposal to be distributed to the dissertation committee after approval by the dissertation chair. The defense will be an oral presentation to the committee by the student and will not be a public meeting. For data-collection based dissertations, the proposal must also be approved by the UAA institutional review board before data collection can commence. Students must at least conditionally pass their dissertation proposal defense before applying to advance to PSY A686.

Doctoral Dissertation

A doctoral dissertation must be carried out successfully and approved by a doctoral dissertation committee. The dissertation committee will consist of at least four members. Content areas can vary widely, but must be related to clinical, community, or multicultural issues and applicable in Alaska settings.

Advancement to Internship

Students must pass both the research portfolio, clinical portfolio, and at least conditionally pass their dissertation proposal defense before applying to advance to PSY A686. In addition to passing both the research and clinical portfolios and conditionally passing the dissertation proposal defense, students must apply to the program director by September 30 (the fall semester prior to the year during which the student seeks to complete the internship) stating their intent to advance to internship. For most students this will mean that the application needs to be made in the fall of the fourth year in the program. The program director will notify the core faculty committee, which will review each student's coursework and ensure that adequate progress has been made toward all prior milestones (i.e., clinical competency, community competency, research competency, doctoral dissertation proposal defense and advancement to candidacy) before approving the student to advance to internship and before writing a letter of support for the student. Students must fully pass both the research portfolio, clinical portfolio, and fully pass their dissertation proposal defense before starting internship.

Internship

A full-time, 18-credit (one-year) internship is required. This internship should meet the criteria laid out by the American Psychological Association (APA); selection of an Association of Psychology Postdoctoral and Internship Centers (APPIC)-approved internship is encouraged. Placements in Alaska are preferred but not required.

APA Ethical Guidelines

Strict compliance with APA Ethical Principles of Psychologists and Code of Conduct is required throughout participation in the degree program. Violations can result in immediate dismissal from the program and failure to graduate. Completion of an annual disclosure statement is also required. Affirmative answers may result in dismissal from the program and failure to graduate.

Program Student Learning Outcomes

Students graduating with a Ph.D. in Clinical-Community Psychology will be able to demonstrate:

- Culturally grounded knowledge and skills in scientific inquiry.
- Competency in using the research and evaluation skills to disseminate new knowledge and inform clinical and community practice.
- Culturally grounded knowledge and skills in rural clinical-community practice.
- Competence in developing and implementing culturally relevant prevention and intervention efforts and programs.
- Culturally grounded knowledge and skills relevant to social and healthcare solutions.
- Competency to facilitate policy and social change.

Master of Arts in English

Admission to this program is currently suspended. Contact the College of Arts and Sciences for more information.

Master of Science in School Psychology-Specialist

The Master of Science in School Psychology - Specialist prepares specialist-level school psychologists who are committed to culturally affirming and comprehensive school psychology services, with an emphasis on meeting the unique needs of students in Alaska's schools. Graduates will gain knowledge and experience in effective, evidence-based, and culturally informed assessment, intervention, consultation, and mental health practices that promote the well-being of all children and youth.

Licensure and/or Certification

Graduates are eligible to apply for their Nationally Certified School Psychologist (NCSP) credential through the portfolio process until full accreditation is achieved. For more details, visit https://www.nasponline.org/standards-and-certification/national-certification (https://www.nasponline.org/standards-and-certification/national-certification/).

The Master of Science in School Psychology - Specialist is aligned to meet requirements in the State of Alaska needed for a Provisional Type C Special Services certificate as a school psychologist. Graduates who obtain their NCSP are eligible for the Advanced Type C Special Services certificate as a school psychologist in the State of Alaska. For more information on the Type C Special Services certificate, visit the Alaska Department of Education and Early Development (https://education.alaska.gov/teachercertification/certification/typec/).

This program is designed to meet the educational requirements for professional licensure or certification in the State of Alaska. However, the program might not meet the educational requirements

for professional licensure or certification in other states. Please see UAA's Licensure and Certification website (https://www.uaa.alaska.edu/academics/office-of-academic-affairs/licensure.cshtml/) for more information.

Admission Requirements

- Complete the Admission Requirements for Graduate Degrees (p. 43).
- Complete adequate prerequisite coursework. Prerequisite courses include one course in each of the following three areas: (1) child or human development, (2) learning or cognition, and (3) tests and measurement. Note that the learning course will be waived for applicants with a valid teaching certificate.
  - Examples of UAA undergraduate courses that meet these requirements include:
    - (1) EDEC A107, PSY A150, PSY A365, or SWK A335
    - (2) PSY A200, PSY A367, or PSY A468
    - (3) PSY A473 or EDSE A610
  - Alternative courses will be considered.
- Complete the graduate application through the UAA Application portal (https://university-of-alaska.my.site.com/formbuilderalaska/ERx_Forms__Portal_Login/) by February 1 for fall admission. Include the following evidence in Applicant Materials, which are evaluated individually and holistically:
  - Personal goal statement should address (a) why they are seeking a degree in school psychology, (b) previous work with children and/or youth and families in school or community-based settings, (c) their reasons for selecting the Master of Science in School Psychology - Specialist at UAA with reference to the program's mission and vision, and (d) reference to place-based and location preferences for field work if applicable.
  - Resume/CV that documents the applicant's vocational and professional experiences with children and/or families, academic achievements, research accomplishments or special projects, recognitions, and other information relevant to the applicant's qualifications for the program.
  - Two letters of reference that address the applicant's suitability for the program and prior work in school or community settings with children, youth, or families. The program values academic excellence, a strong commitment to comprehensive school psychology services, interpersonal skills (e.g., clear communication, effective collaboration), intrapersonal skills (e.g., reflection, adaptability), professional behaviors (e.g., reliability, ability to receive feedback), ethical decision-making, and sound reasoning. Applicants are asked to seek recommendations from those who can offer a recent and professional assessment of their knowledge, skills, and behaviors in these areas (e.g., direct supervisors, professors).
  - Official academic transcripts of prior undergraduate and graduate coursework (if applicable).
- Qualifying candidates are invited for a zoom interview.
- Admission to the program is based on the professional judgment of the School Psychology Admissions Committee and a rubric for each of the above identified admission requirements (personal goal statement, resume/CV, letters of reference, transcripts, and interview).

Special Considerations

- An initial background check (https://www.uaa.alaska.edu/academics/school-of-education/student-success/initial-background.cshtml/) from the Alaska Department of Health is required in the first semester of enrollment for placement in course-based and clinical field experiences.
- Online Mandatory Trainings for teacher certification as outlined by the Alaska Department of Education and Early Development (https://education.alaska.gov/teachercertification/mandatorytraining/) are required by the end of the first year.
- Compliance with the National Association of School Psychologists (NASP) Principles for Professional Ethics and the UAA Code of Student Conduct throughout the program is required. These are evaluated as part of coursework and field experiences. Failure to abide by these standards will lead to probationary status and may be grounds for dismissal from the program.
- Attend an on-campus 2-day orientation during the week prior to the start of classes.
- Attend one on-campus weekend per fall and spring semesters, and an on-campus summer intensive as part of the expected program requirements.
- Join student membership in one national and preferably one state professional organization.
- Complete course-based field placements, a 300-hour practicum, and 1,200 hour internship in a school setting in accordance with the Standards for Graduate Preparation of School Psychologists (https://www.nasponline.org/x55315.xml).
  - Practicum and internship placements are contingent on school district partnerships that will offer experiences to comprehensively address all NASP domains of school psychology practice along with adequate available supervision. Due to accreditation requirements and capacity limitations, students might not be able to complete their field placement at the site where they work; however all admitted students will be offered a placement. Unacceptable academic performance, an unprofessional attitude, unsatisfactory field reports, violation of professional ethics or other factors may result in removal from the field placement.

Graduation Requirements

- Complete the General University Requirements for Graduate Degrees (p. 358).
- Pass the Praxis School Psychology test with a minimum score of 155. The test is based on the National Association of School Psychologists (NASP) Model for Comprehensive and Integrated School Psychological Services (2020) and is designed for candidates seeking licensure or certification as school psychologists in educational settings.
- Complete a comprehensive ePortfolio with a minimum of Meets Standards as rated by the program faculty.
- Complete the following major requirements:

Code	Title	Credits
PSY A600	Strategies of Behavior Change	3
PSY A608	Contemporary Issues and Practices in School Psychology	3
PSY A609	Research Methods in School Psychology	3
PSY A610	Single Subject Research Designs	3
PSY A613	Behavioral Assessment	3
PSY A615	School Psychology in a Global Society: Law, Ethics, and Professionalism	3
PSY A618	School Psychology Assessment I: Assessment with Children and Adolescents	3
PSY A619	School Psychology Assessment II: Cognitive and Academic Assessment	4
PSY A621	School Crisis Prevention, Intervention, and Response	3
PSY A638	Child Clinical Psychology	3
PSY A661	Consultation and Collaboration with Schools, Families, and Communities	3
PSY A662	School-Based Mental Health and Counseling	3
PSY A663	Academic Supports and Interventions	3
PSY/EDSE/SWK A691	Children's Mental Health Systems of Care	3
PSY A695D	School Psychology Practicum [1]	4
PSY A695E	School Psychology Internship [1]	4
EDL A620	Leadership in Alaska Culture and Social Justice Issues	3
EDSE A622	Curriculum and Strategies II: High Incidence	3
Complete two electives:		**6**
COHI A655	Interdisciplinary Approaches to FASD: Best Practices in Alaska	
EDSE/PSY A611Y	Assessment in Preschool Special Education	
EDSE A612	Curriculum and Strategies I: Low Incidence	
EDSE/PSY A623Y	Strategies and Interventions: Preschool Special Education	
PSY A647	Advanced Behavioral Supports for Neurodivergence	
PSY A655	Interventions for Challenging Behavior	
PSY A698P	Research Project	
PSY A699	Thesis	
Advisor approved special education elective		
Total		**63**

[1] *Students must complete this course in the fall and spring for a total of 4 credits.*

A minimum of 63 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with a Master of Science in School Psychology - Specialist will be able to:

- Provide and advocate for culturally inclusive and strengths-based assessment practices that increase fairness in assessment;
- Design, deliver, and evaluate evidence-based and culturally informed intervention practices to promote academic success and positive behavioral, social, and emotional functioning;
- Deliver culturally affirming, trauma-engaged behavioral and mental health services;
- Engage in collaborative, empowering practices and partnerships with students, families, educators, and school communities to promote positive outcomes;
- Analyze and apply current research in the field of school psychology;
- Adhere to legal, ethical, and professional standards;
- Contribute to advancing policies and practices in school systems to promote the well-being and safety of all students and school communities; and
- Engage in continuous self-reflective practice, assessing personal strengths, biases, and areas for growth as a school psychologist.

College of Business and Public Policy

College of Business and Public Policy (https://business.uaa.alaska.edu/academics/)

Department of Accounting and Finance (https://business.uaa.alaska.edu/departments/accounting-finance/)
Edward & Cathryn Rasmuson Hall (RH), Room 203
(907) 786-4100

Department of Economics and Public Policy (https://business.uaa.alaska.edu/departments/economics-public-policy/)
Edward & Cathryn Rasmuson Hall (RH), Room 203
(907) 786-4100

Department of Management, Marketing, Logistics, and Business Analytics (https://business.uaa.alaska.edu/departments/mmlba/programs/index.cshtml/)
Edward & Cathryn Rasmuson Hall (RH), Room 203
(907) 786-4100

Department of Public Administration and Policy (https://www.uaa.alaska.edu/admissions/academic-programs/public-administration-mpa.cshtml/)

Edward & Cathryn Rasmuson Hall (RH)
(907) 786-4101

Graduate Certificate in Business Analytics and Artificial Intelligence

The Graduate Certificate in Business Analytics and Artificial Intelligence prepares students to transform company data into actionable insights. They will develop skills for effectively gathering, analyzing, and applying information to improve decision-making and increase organizational performance and competitiveness. The high demand for skills in business intelligence, business analytics, and artificial intelligence will grow exponentially over the coming decades. These highly transferable skills will enable students to shift careers across industry sectors or jumpstart a graduate degree.

Admission Requirements

- Complete the Admission Requirements for Graduate Certificates (p. 43).
- Complete the following College of Business and Public Policy (CBPP) requirements:
  - Undergraduate minimum GPA requirement for admission may be waived if an applicant has a graduate degree from an institutionally accredited institution or can provide documented evidence of leadership or a sustained record of accomplishment in their career.
  - Each applicant must submit the following to the UAA Office of Admissions as part of their application materials:
    - A statement of goals: a 300-500 word statement about career goals and how the certificate relates to them.
    - A resume, including the names and contact information of three references.

Graduation Requirements

- Complete the General University Requirements for Graduate Certificates (p. 364).
- Complete the curriculum requirements for the graduate certificate with a minimum cumulative GPA of 3.00.
- Students may apply one 400-level course toward this certificate. Special topics courses may be approved by the student's advisor.
- No more than one equivalent course (3 credits) can be transferred and apply toward this certificate.
- Complete the following major requirements:

Code	Title	Credits
BA A608	Artificial Intelligence with Business Applications	3
BA A610	Business Intelligence and Analytics	3
BA A649	Advanced Business Data Analysis	3
or BADA A670	Advanced Business Analytics, Data Science, and Machine Learning	
Complete three credits from the following courses: [1]		3
BA A461	Negotiation and Conflict Management	
BA A632	Leadership and Organizational Behavior	
BA A633	Problem Formulation and Decision Analysis	
BA A648	Business Intelligence and Data Mining	
BA A690	Advanced Topics in Business	
Total		**12**

[1] *BA, LOG and PADM 600-level courses not in this list may apply with advisor approval.*

A minimum of 12 credits is required for the certificate.

Program Student Learning Outcomes

Students graduating with a Graduate Certificate in Business Analytics & Artificial Intelligence will be able to:

- Demonstrate a fundamental understanding of key AI concepts, and technologies, the state of AI in business today, and the future of AI.
- Demonstrate data driven decision making in business.
- Apply advanced business intelligence strategies for data visualization.

Graduate Certificate in Executive Leadership

The Graduate Certificate in Executive Leadership prepares students to advance their leadership skills and career to the next level. They will develop skills that can improve decision-making, increase organizational efficiency and effectiveness, and improve organizational culture. This graduate certificate will appeal to professionals across all industry sectors vital to Alaska's economy. Honed leadership skills are crucial in all organizations, including banking, IT, engineering, energy, transportation, infrastructure, healthcare, logistics, education, tourism, natural resources.

Admission Requirements

- Complete the Admission Requirements for Graduate Certificates (p. 43).
- Complete the following College of Business and Public Policy (CBPP) requirements:
  - Undergraduate minimum GPA requirement for admission may be waived if an applicant has a graduate degree from an institutionally accredited institution or can provide documented evidence of leadership or a sustained record of accomplishment in their career.
  - Each applicant must submit the following to the UAA Office of Admissions as part of their application materials:
    - A resume, including the names and contact information of three references.

- A statement of goals: a 300-500 word statement about career goals and how the certificate relates to them.

Graduation Requirements

- Complete the General University Requirements for Graduate Certificates (p. 364).
- Complete the curriculum requirements for the graduate certificate with a cumulative GPA of 3.00 or better.
- Students may apply one 400-level course toward this certificate. Special topics courses may be approved by the student's advisor.
- No more than one equivalent course (3 credits) can be transferred and apply toward this certificate.
- Complete the following major requirements:

Code	Title	Credits
BA A632	Leadership and Organizational Behavior	3
BA A628	Executive Leadership	3
Complete 6 credits from the following courses: [1]		6
BA A401	Alaska Native Corporation Business Management	
BA A621	Change Leadership and Facilitation	
BA A627	Leadership in the Multicultural Organization	
BA A690	Advanced Topics in Business	
PADM A601	Introduction to Public Administration and Policy	
PADM A671	Selected Topics in Public Administration	
Total		**12**

[1] *BA, LOG and PADM 600-level courses not in this list may apply with advisor approval.*

A minimum of 12 credits is required for the certificate.

Program Student Learning Outcomes

Upon completion of this certificate, students will be able to:

- Describe characteristics of leadership in settings at the organizational, team, and individual level.
- Critically analyze and apply the foundational methods and theories of organizational behavior science to appropriate work situations as a leader and follower.
- Integrate critical thinking to inform professional leadership issues.
- Identify and evaluate leadership styles, theories, and approaches and consequently practical applications.

Master of Business Administration in General Management

The Master of Business Administration (MBA) provides students with the knowledge, skills, and abilities necessary for significant managerial and leadership roles. The focus of the program is management, recognizing that sound practice requires a thorough understanding of underlying management principles and techniques. Our MBA graduates will be grounded in state-of-the-art management theory and aware of the complex global environment in which modern organizations operate.

The MBA program is accredited by the Association to Advance Collegiate Schools of Business (AACSB-International).

Admission Requirements

Applicants must meet both the Admission Requirements for Graduate Degrees (p. 43) and the College of Business and Public Policy (CBPP) requirements outlined here.

Undergraduate minimum cumulative GPA of 3.25 or a minimum GMAT score of 525 is required for acceptance into the program. A GMAT quantitative score of the 30th percentile or higher is preferred for the Quantitative section*. If the score is less than the 30th percentile, students may be required to take a quantitative foundation course.

GMAT waivers may be considered for applicants who meet any of the following criteria:

- Hold another relevant master’s degree from an accredited university.
- Hold a terminal degree from an accredited university.
- Have a minimum undergraduate cumulative GPA of 3.25 or a minimum cumulative GPA of 3.25 for upper-division courses.

Additional indicators for predicting success in individual cases may be provided through documented evidence of creativity and leadership, or a sustained record of accomplishment in business or other professional activity.

Each applicant must submit the following to the UAA Office of Admissions as part of their application materials:

- A statement of purpose.
- A resume, including the names and contact information of three references.

Applicants whose native language is not English must score at least 80 (Internet-based exam scale) on the Test of English as a Foreign Language (TOEFL). Students may apply to enter the program by the published university deadlines. International students will need to provide extra documentation and are advised to apply three months earlier to allow for the extra processing time.

*All students must meet a quantitative skills requirement to be admitted.

Accelerated MBA Option

Bachelor of Business Administration (BBA) in Management students interested in pursuing an MBA degree are encouraged to discuss the Accelerated MBA Option with their academic advisor(s) and plan on applying for admission to the MBA during their junior year. Students admitted to the Accelerated MBA are eligible to apply up to twelve

credits of 400 to 600 level business coursework towards both their BBA in Management and MBA. Applicants must meet the Admission Requirements for Graduate Degrees and the MBA. In addition to the Admission Requirements listed above (excluding the GMAT requirement), the Accelerated MBA Option applicant must:

- Be a current student enrolled in the BBA in Management.
- Have completed at least 50% of the credits toward the BBA in Management.
- Have completed the following courses: ACCT A201, ACCT A202, ECON A101, ECON A102 and ECON A227 with a minimum grade of B.
- Have a grade point average (GPA) of 3.25 or higher for all coursework completed at UAA.

Graduation Requirements

- Complete the General University Requirements for Graduate Degrees (p. 358).
- Complete the following major requirements:

All students must complete the following foundation courses. Foundation courses do not count toward the 30 or 36 total credits required for this degree. Advisors may, however, waive one or more of the foundation courses if the student has satisfactorily completed disciplinary equivalent coursework.

Code	Title	Credits
Foundation Courses		
ACCT A601	Accounting Foundations for Executives	3
BA A603	Fundamentals of Finance	3
ECON A602	Introduction to Economics for Managers	3
Total		**9**

Students can select a MBA in General Management, which requires 30 credits, or a MBA in General Management with an Emphasis, which requires 36 credits.

Code	Title	Credits
Core Courses		
ACCT A650	Seminar in Executive Uses of Accounting	3
BA A608	Artificial Intelligence with Business Applications	3
BA A610	Business Intelligence and Analytics	3
BA A632	Leadership and Organizational Behavior	3
BA A635	Current Marketing Issues Seminar	3
BA A636	Financial Decision Making	3
ECON A625	Economics and Public Policy	3
Total Credits		**21**
Electives		

Students select two electives for an MBA in General Management or one elective for an MBA in General Management with an Emphasis.

Students may take courses in the emphasis areas (see below) or any advisor approved CBPP graduate course as elective courses including public administration courses. Also with the advisor's approval, elective coursework can be selected from graduate courses offered by other colleges or disciplines within UAA, or graduate courses offered by other universities accredited by AACSB International. Up to two 400-level courses not previously applied towards another degree may be taken as electives for the entire degree, with the advisor's approval and only if graduate course offerings are not available on those topics.	
Total Elective Credits for a General MBA	**6**
Total Elective Credits for a General MBA with an Emphasis	**3**
Capstone Course	
Select one course based on preferred nature of experience (practical or academic) and application (applied or theoretical):	
BA A655	Strategic Management Seminar
BA A656	Management Project
BA A698	MBA Individual Research
Total Capstone Credits	**3**
Total General MBA Credits	**30**
Total General MBA with an Emphasis Credits	**36**

Emphasis Area/Elective Coursework

Emphasis Area: By selecting courses in a particular business-related discipline, students can design a custom emphasis area or can choose one of the emphasis areas below. Students must complete at least 9 additional credits to fulfill an emphasis.

Elective Coursework: Students may select electives from the courses listed below.

Code	Title	Credits
Business Intelligence and Business Analytics Emphasis		
BA A633	Problem Formulation and Decision Analysis	3
BA A648	Business Intelligence and Data Mining	3
BA A649	Advanced Business Data Analysis	3
or BADA A670	Advanced Business Analytics, Data Science, and Machine Learning	
Total		**9**

Code	Title	Credits
Leadership Emphasis		
BA A621	Change Leadership and Facilitation	3

BA A627	Leadership in the Multicultural Organization	3
BA A628	Executive Leadership	3
With the advisor's approval, a student may select a 400-level leadership course to complete the leadership emphasis.		
Total		**9**

Code	Title	Credits
Public Sector and Non-Profit Management Emphasis		
Complete 9 credits from the following:		9
PADM A601	Introduction to Public Administration and Policy	
PADM A602	Seminar in Public Management	
PADM A603	Management Analysis	
PADM A606	The Policymaking Process	
PADM A608	Organizational Theory, Design and Development	
Total		**9**

Code	Title	Credits
Health Administration Emphasis		
Complete at least 9 credits of 600-level advisor-approved health science-related electives not applied to another undergraduate or graduate degree. Recommended courses include HS A605, HS A624, HS A626, HS A628/ SWK A628, HS A630, HS A683/SWK A683 and HS A690.		9
Total		**9**

Code	Title	Credits
Project Management Emphasis		
PM A601	Project Management Fundamentals	3
PM A602	Application of Project Management Processes	3
Complete 3 credits from the following:		3
PM A612	Advanced Project Time Management	
PM A623	Stakeholder Engagement and Collaboration	
PM A624	Advanced Project Risk Management	
PM A632	Advanced Project Controls	
PM A640	Organizational Project Maturity and Improvement	
PM A641	Lean Six Sigma Green Belt	
Total		**9**

A minimum of 30 credits is required for an MBA in General Management, and a minimum of 36 credits is required for an MBA in General Management with an Emphasis. Additional credits are required for students who need to take foundation courses.

Program Student Learning Outcomes

Upon graduation, MBA program graduates will possess or show ability in the following areas as defined by these MBA Learning Goals:

- Understand organizations as complex adaptive systems.
- Use reasoning analytically and critically to solve complex business problems.
- Effectively communicate with a range of audiences.
- Demonstrate proficient leadership skills across diverse organizational settings.

Master of Science in Global Supply Chain Management

Admission to this program is currently suspended. Contact the College of Business and Public Policy for more information.

Master of Public Administration

The Master of Public Administration (MPA) provides students with the knowledge and skills needed for professional careers in public service. MPA students learn analytical techniques and add to their expertise in organizational and program management, policy analysis, and related areas. The program emphasizes public policy, management, and administrative issues.

Admission Requirements

Students enter the MPA with bachelors' degrees from a variety of educational backgrounds. Accordingly, the program meets the needs of students with a wide mix of professional and educational backgrounds and interests.

To apply for admission, applicants must meet the UAA Admission Requirements for Graduate Degrees (p. 43) and must:

- Have a baccalaureate degree from an institutionally accredited institution in the U.S. or foreign equivalent.
- Have completed a minimum of 6 credits in baccalaureate level Political Science (3 credits) and Descriptive/Inferential Statistics (3 credits) with a minimum grade of B. *(Provisional admission is possible if this criterion is not met at the time of application).*
- Submit documentation for the following:
  - Minimum B grade point average (3.0 on a 4.0 scale) or equivalent at an accredited college or university, or 3.5 or equivalent for graduate-level work.
  - Students with lower than a 3.00 undergraduate GPA may submit Graduate Record Examination (GRE) scores. The undergraduate GPA plus GRE Analytic score should total 7.0 or higher. The GRE is not required for students having already earned a graduate degree from an institutionally accredited institution in the United States or foreign equivalent, provided they have the minimum GPA listed above.
  - A “Statement of Intent,” two to three pages long, outlining prior work and/or policy experience, and academic and career objectives.

- A resume listing education and employment history, particularly any previous administrative experience. Please include contact information for three references on the resume.

Detailed admission standards are available on the department website (https://www.uaa.alaska.edu/admissions/academic-programs/public-administration-mpa.cshtml/).

Contact the CBPP Graduate Office for full program information, including application procedures.

Graduate Office
UAA College of Business and Public Policy
3211 Providence Drive, Anchorage, AK 99508 U.S.A.
Telephone: (907) 786-4101

Academic Requirements

To maintain satisfactory progress toward the degree, a student in the MPA is expected to complete a minimum of 6 semester credits each calendar year, starting with the first term of enrollment. The 6 semester credits may consist of either undergraduate prerequisite courses or graduate program courses. Failure to comply with the 6 credit minimum each calendar year may result in a student being dropped from the program.

Graduation Requirements

- Complete the General University Requirements for Graduate Degrees (p. 358).
- Students must take the core comprehensive examination after completing the core courses. This examination must be passed before the student may enroll in the capstone course.
- Complete the following major requirements:

Code	Title	Credits
Core Courses		
PADM A601	Introduction to Public Administration and Policy	3
PADM A602	Seminar in Public Management	3
PADM A604	Research Methods in Public Administration	3
PADM A606	The Policymaking Process	3
PADM A608	Organizational Theory, Design and Development	3
PADM A628	Public Financial Management	3
Additional Courses		
PADM A603	Management Analysis	3
PADM A640	Dispute Resolution	3
or BA A461	Negotiation and Conflict Management	
PADM A688	Program Evaluation and Performance Measurement	3
Electives		
6 credits of advisor-approved graduate electives		6
Capstone Project		
PADM A659	Public Administration Capstone	3
Total		**36**

A minimum of 36 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with a Master of Public Administration will be able to demonstrate:

- Leadership and decision making
- Communications
- Awareness of the values and tradeoffs in public service, including sustainability, citizen engagement, democratic values and transparency
- Role of financial, human, information, technology and other resources
- Knowledge of the policy process, including assessment
- Problem-solving, including the use of evidence
- Information processing and technology for effective administration

Master of Public Policy

The Master of Public Policy (MPP) provides the knowledge and skills students need to be a policy analyst, researcher, or leader for a broad array of public, non-profit, academic, and tribal positions in Alaska and across the North. It provides students with the ability to engage across a broad array of public policy fields and the methodological depth to carry out sophisticated analyses using both quantitative and qualitative research methods.

Admission Requirements

- Complete the Admission Requirements for Graduate Degrees (p. 43).
- Complete a baccalaureate degree from an institutionally accredited institution in the US or foreign equivalent, preferably in a policy discipline, e.g., political science, justice, economics, sociology, anthropology, environmental studies, public health.
- Complete a minimum of 12 credits in baccalaureate-level Microeconomics (3 credits), Macroeconomics (3 credits), Political Science (3 credits), and Descriptive/Inferential Statistics (3 credits) with a minimum grade of B. Provisional admission is possible if this criterion is not met. Provisionally accepted students will be required to complete leveling coursework within a period of one year before admission to regular status in the program is conferred.
- Submit the following additional documentation:
  - Minimum B grade point average (3.00 on a 4.00 scale) or equivalent at an accredited college or university, or 3.50 or equivalent for graduate-level work.
  - Students with lower than a 3.00 undergraduate GPA may submit Graduate Record Examination (GRE) scores. The undergraduate GPA plus GRE Analytic score should total 7.0 or higher. The GRE is not required for students having already earned a graduate degree from an institutionally accredited institution in

the United States or foreign equivalent, provided they have the minimum GPA listed above.
- A "Statement of Intent," two to three pages long, outlining prior work and/or policy experience, and academic and career objectives.
- An academic or professional writing sample.
- A resume listing education and employment history, particularly any previous policy experience. Please include three references on the resume.

Acceptance into the program is based on the prospective student's overall credentials as well as the availability of appropriate faculty for student practica and/or research.

Advising

Prospective graduate students are strongly advised to contact potential research/advisor faculty at an early stage of their admission process. An initial advisor is assigned to students based on interests and other academic criteria.

Academic Requirements

A full-time student in the MPP program is expected to complete a minimum of 9 credits (or 6 in the final semester of coursework) applicable to the program per semester with a minimum cumulative GPA of 3.00. Part-time students must complete at least 3 credits per semester and maintain a minimum cumulative GPA of 3.00. Students who fail to satisfy provisional admission conditions may be removed from the program. Leaves of absence may not total more than four semesters.

Graduation Requirements

- Complete the General University Requirements for Graduate Degrees (p. 358).
- Complete the following program requirements:

Code	Title	Credits
Complete the following courses:		
ECON A625	Economics and Public Policy	3
PADM A601	Introduction to Public Administration and Policy	3
PADM A604	Research Methods in Public Administration	3
PADM A606	The Policymaking Process	3
PADM A628	Public Financial Management	3
PADM A632	Public Policy Analysis	3
PADM A650	Alaska Policy Studies	3
PADM A651	Issues in Arctic Policy	3
PADM A660	Public Policy Capstone A	3
PADM A661	Public Policy Capstone B	3
Advisor-approved graduate electives		6
Total		**36**

A minimum of 36 credits is required for the degree.

Candidacy Requirements

See UAA Advancement to Candidacy (p. 358) requirements. A student advances to candidacy by doing the following:

- Select a faculty advisor by the end of the second semester of graduate study.
- Complete at least 30 semester credits of non-thesis/non-practicum coursework applicable to the MPP program.
- Demonstrate research or statistical competence needed to complete the degree program (by earning a passing grade of B or higher in PADM A604 or pre-approved equivalent), as approved by a student's faculty advisor.

Program Student Learning Outcomes

Students graduating with a Master of Public Policy will be able to:

- Lead and manage in public policymaking and governance
- Apply, participate in and contribute to the public policy process
- Create and apply methods and tools to analyze, synthesize, think critically, solve problems and make decisions across a broad set of policy issues
- Articulate a public service perspective to engaging in public policy work
- Analyze the Alaska and Arctic public policy and economic contexts and how to work successfully within them
- Communicate and interact productively with diverse communities and institutions

School of Education

School of Education

Department of Early Learning and Teaching (https://www.uaa.alaska.edu/academics/school-of-education/contact-us.cshtml/)

Professional Studies Building, Room 102
(907) 786-4402, uaa_soedu@alaska.edu

Department of Graduate Studies in Education, Indigenous Studies, and Leadership (https://www.uaa.alaska.edu/academics/school-of-education/contact-us.cshtml/)
Professional Studies Building, Room 102
(907) 786-4402, uaa_soedu@alaska.edu

Department of Professional and Continuing Education (https://www.uaa.alaska.edu/academics/school-of-education/contact-us.cshtml/)

Professional Studies Building, Room 102
(907) 786-4402, uaa_soedu@alaska.edu

The School of Education (SOE) comprises a community of educators dedicated to improving the quality of education. The mission of the School of Education is to prepare high-quality educators and support the lifelong learning of professionals to embrace diversity and to be intellectually and ethically strong, resilient, and passionate as they serve Alaska's learners, families, educators, and communities. The school

offers undergraduate and graduate courses and programs designed to prepare personnel for various professional roles related to education in any learning environment.

SOE programs emphasize the power of learning to transform people's lives. The school offers high-quality coursework to improve access for rural students and provide flexible scheduling for practicing educators. In each of the school's programs, students engage with fundamental education issues in the contemporary world through courses designed to develop perspective and understanding of the relationship of education to society. Faculty provide integrated theory and practice in developing instructional materials and methods of instruction. All graduate courses are offered through distance delivery methods.

The School of Education promotes the following core values in their collegial interactions to ensure that program graduates exhibit:

1. Intellectual vitality: Professional educators employ diverse perspectives, engage in research and scholarship, build knowledge and practice, and apply innovative technologies.
2. Collaborative spirit: Professional educators generate, welcome, and support collaborative relationships and partnerships to enrich people's lives.
3. Inclusiveness and equity: Professional educators advocate for and create learning communities that advance knowledge and ensure the development, support, and inclusion of people's abilities, values, ideas, languages, and expressions.
4. Leadership: Professional educators are committed to exhibiting the highest standards of ethical behavior in their roles, using professional expertise to improve the communities in which they live and work, and demonstrating the ability to translate theories and principles into transformative educational practice.

SOE professional preparation programs, which include Educational Leadership, Special Education, and Language Education, are approved by the Alaska Department of Education and Early Development. These advanced licensure programs are accredited by the Council for the Accreditation of Educator Preparation (CAEP). The Alaska Department of Education and Early Development (DEED) issues certificates and endorsements under the "approved program" process for certification. UAA recommends individuals to the Commissioner of DEED for certification or endorsement after successfully completing one or more of the approved programs. Only the Dean of the School of Education is authorized to recommend candidates for the appropriate certificate or endorsement. Candidates who seek Alaska state licensure must successfully complete a School of Education "approved program," as well as any additional requirements initiated by DEED. Only courses with a grade of C or higher will be applied to meet certification or endorsement requirements. In addition, candidates must demonstrate professional behaviors and dispositions consistent with the School of Education's Core Values and the Specialized Professional Associations as well as abide by the UAA Student Code of Conduct and the Code of Ethics and Professional Teaching Standards adopted by the Alaska Professional Teaching Practices Commission. Candidates should be advised that total credits may exceed minimums because of prerequisite requirements, knowledge and skill enhancement, individually selected majors, and areas of specialization and/or emphasis.

Interested individuals must apply for admission to the University of Alaska Anchorage (UAA) and to the School of Education. Students are formally admitted to an appropriate program based on multiple criteria, including their ability to positively contribute to educational professions. Once admitted, students work with an academic advisor to develop a graduate studies plan with each candidate based on transfer credits, program requirements, professional interests, and elective courses. The program may or may not include certification or endorsement requirements.

Master of Education

There are several options for students to obtain a Master of Education (MEd) degree. MEd options are:

- Educational Leadership
- Special Education
- Teaching and Learning

Graduate Certificates

The School of Education offers three graduate certificate programs:

- Educational Leadership: Principal
- Language and Literacy Education: English as a Second Language (ESL)
- Special Education

Coursework applied to graduate certificates may also apply to the MEd with faculty advisor approval.

Admission Requirements

In some cases, applicants may be contacted about scheduling personal interviews with the school after their completed files are received. When all documents are received and reviewed by the school, the applicant will be notified of the school's decision.

Applicant files are reviewed throughout the year. However, applications for admission need to be submitted by specific dates (July 1, November 1, and May 1) to qualify for financial aid.

Applicants must:

1. Complete the Admission Requirements for Graduate Degrees and Certificates (p. 43).
2. Have an undergraduate GPA of 3.00 (on a 4.00 point scale).
3. Complete the admission requirements as specified by the appropriate program. In general, programs require submission of a resume documenting professional experience, goal statements, writing samples, and professional references. Some programs may require teacher certification. The college may request interviews as part of the admission process.

Applicants who meet the above criteria are considered for program admission on a competitive basis.

Academic Requirements

Graduate students must demonstrate continuous progress toward program completion. School of Education candidates must complete at least one approved program course during any 24-month consecutive period to maintain active status in their programs. Candidates not making continuous progress and not on an approved leave of absence (see Leave of Absence in Graduate Degree Policies (p. 360)) may be removed from master's degree-seeking status.

Graduate Studies Plan

An official graduate studies plan (GSP) must be approved before completion of more than 12 credits of coursework.

Graduation Requirements

Candidates completing a graduate degree or certificate must complete the following requirements:

- Satisfy the General University Requirements for Graduate Degrees (p. 358) or the General University Requirements for Graduate Certificates (p. 364) as appropriate to the program of admission.
- Specific programs may require more than 30 credits. See appropriate program for credit requirements.
- Satisfy the requirement of a comprehensive examination, comprehensive portfolio or other scholarly work as specified by the program.

Graduate courses completed prior to being admitted as a graduate student will not necessarily be applicable toward a specific graduate degree program.

State-Approved Program Verification

Following are the requirements for a state-approved program verification for those programs approved for certification or endorsement:

1. For endorsements, all requirements for a current teacher certificate must be successfully met.
2. For Principal Type B Administrative Certificates, candidates must have three years of successful certificated contract experience as a teacher or special services provider (Type C). In addition, a minimum of a master's degree is required.
3. For the Principal Type B Certificate, the MEd or graduate certificate must be conferred. For language education and special education, the graduate certificate must be conferred.
4. For the special education endorsement, candidates must pass the required Praxis II exam.
5. Demonstration of technology skills appropriate to the field.

Certification is awarded by the State of Alaska Department of Education and Early Development (EED) in Juneau. Graduates must meet all requirements specified by EED at the time of application for the certificate.

Professional Field Experience

Prior to entering the final stage of preparation, which is characterized in most options by participation in a practicum or internship, a faculty committee will evaluate each candidate's performance in the program. Admission into this final professional preparation phase is a faculty decision and is separate from entry into the graduate program. Dispositional challenges, including inadequate academic performance, unprofessional behavior, unsatisfactory field reports, or other factors, may result in denial of entry to the professional field experience. Performance in practicum and internship is closely monitored, with stated minimum competencies and the development of individual objectives. Since this is the practice and application phase of professional development, it is assumed that candidates will demonstrate appropriate professional dispositions with respect to their professional actions, attitude, and performance.

The Alaska Department of Education and Early Development issues certificates/endorsements as a result of successful program completion, as verified by the School of Education Dean.

Field Placements

Most School of Education graduate programs require field experiences in school or agency settings. The School of Education works with Alaska school districts to offer diverse placements for students. Diversity of placements refers to grade levels and types of schools. It is our policy to, whenever possible, ensure students receive diverse placements in schools and grade levels. Students who live in rural districts will be placed in the most diverse placements possible in their location.

Criminal History Background Clearance

The School of Education requires compliance with specific background clearance policies and procedures for candidates participating in university-sponsored fieldwork. In some cases, criminal history background clearance is required for admission to a program. In addition to self-disclosure of criminal history to the School of Education and its partners, a check of the Alaska and national sex offender registries, a fingerprint-based check by the Federal Bureau of Investigation, and a name-based check through the Alaska Public Safety Information Network may be required. Various agencies and centers may have additional requirements.

Failure to comply with the School of Education background check requirements will result in denial of access to field placement settings. Failure to pass the criminal history background check will result in removal from the program. More information is available on the School of Education website (https://www.uaa.alaska.edu/academics/school-of-education/).

Cooperating School/Agency

Practica, internships, and other field experiences are only coordinated in cooperation with participating school districts and agencies. School of Education clinical partners reserve the right to request additional information and/or preparation from candidates in accordance with their established policies/practices. Partner districts and agencies also determine the number of available spaces and placements for

candidates. Placements may become competitive if the number of applicants exceeds the number of spaces. Districts and agencies also reserve the right to refuse or terminate placements when candidates do not meet an acceptable standard of performance. Thus, while the university makes every effort to find appropriate field placements for candidates, admittance to a degree/certificate/endorsement program does not guarantee acceptance by cooperating school districts or agencies. Unacceptable academic performance, an unprofessional attitude, unsatisfactory field reports, violation of professional ethics, or other factors may result in removal from the field placement.

Transfer

Candidates who have taken all or part of an approved program at another university must take at least 9 credits of approved education courses at the University of Alaska prior to being admitted to an advanced practicum or internship.

Graduate Certificate in Advanced Leadership in Special Education

The Graduate Certificate in Advanced Leadership in Special Education is designed for school-based administrators, district-based administrators, special education P-12 teachers, leaders, and related service providers seeking advanced preparation in serving students with special needs. The program specifically prepares individuals for the addition of endorsements on the State of Alaska Type A Teacher and Type B Administrator credentials.

Admission Requirements

- Complete the Admission Requirements for Graduate Certificates.
- Submit an application to the Graduate Certificate in Advanced Leadership in Special Education.
- Hold a bachelor’s degree from an institutionally accredited institution.
- Submit proof of current teacher or administrator certification.

Special Considerations

- This program includes courses delivered by distance. Admitted students must have the technological knowledge and skills to engage in distance learning.

Graduation Requirements

- Complete the General University Requirements for Graduate Certificates (p. 364).
- Complete the following major requirements:

Code	Title	Credits
EDL A621	Leadership in Special Education	3
EDSE A602	Best Practices in Inclusive Education	3
EDSE A610	Clinical Assessment: Eligibility and Program Planning	3
EDSE A632	Special Education Law: Principles and Practices	3
Total		**12**

A minimum of 12 credits is required for the degree.

State-Approved Verification Form

Following are the requirements for a state-approved verification form for the Advanced Leadership in Special Education Endorsement.

- Completed all program courses with a minimum grade of C.
- Received a minimum cumulative GPA of 3.00 in the program coursework.
- Posted Graduate Certificate on the transcript.

Requirements for endorsements within the state of Alaska can be found at the Alaska Department of Education and Early Development (http://www.eed.state.ak.us/).

Please go to UAA's Authorization by State (https://www.uaa.alaska.edu/academics/office-of-academic-affairs/uaa-state-authorization/authorization.cshtml/) website for information about licensure or certification in a state other than Alaska.

Program Student Learning Outcomes

Student outcomes for this certificate are based on the National Educational Leadership Preparation (NELP) Program and the Council for Exceptional Children Standards. Students graduating with a Graduate Certificate in Advanced Leadership in Special Education will be able to:

- Apply leadership strategies that promote collaboration among stakeholders, including teachers, parents, and support staff.
- Analyze and address systemic barriers to inclusive education within educational institutions.
- Apply knowledge of diverse learning styles and disabilities to design and implement individualized educational plans (IEPs).
- Use evidence-based instructional strategies and interventions to support the academic and social-emotional growth of students with disabilities.
- Demonstrate the ability to assess student progress and make data-driven instructional decisions.
- Interpret assessment data to inform instructional planning and IEP development.
- Ensure compliance with legal requirements related to assessment and reporting for students with disabilities.
- Understand and apply federal and state laws related to special education, including the Individuals with Disabilities Act (IDEA), Section 504, and the Americans with Disabilities Act (ADA).

Master of Education in Educational Leadership

The Master of Education (MEd) in Educational Leadership is designed for individuals seeking advanced professional preparation to become

school leaders. The program specifically prepares individuals for principal or teacher leadership positions. The options include:

- Principal (with Type B certificate)
- Teacher Leadership (without Type B certificate) — *admission suspended*

Admission Requirements

- Complete the Admission Requirements for Graduate Degrees (p. 43) and the School of Education MEd & Graduate Certificate Admission Requirements (p. 388).
- Complete the admissions requirements for the program:
  - Hold appropriate certification: current teacher or special services provider (Type C) certificate or equivalent.
  - Provide a resume documenting educational experience including at least three years of experience as a certificated elementary teacher, secondary teacher or special services provider (Type C).
  - Submit a writing sample.
  - Submit three letters of recommendation or rating forms from professional references. At least one of the professional references must be from a current educational supervisor who has evaluated the candidate.
  - Contact the School of Education (https://www.uaa.alaska.edu/academics/school-of-education/) for an admissions packet.

Background Check Requirements

See School of Education Field Placements (p. 389).

Graduation Requirements

- Complete the General University Requirements for Graduate Degrees (p. 358).
- Complete the program requirements below:

Principal (with Type B Administrator Certificate)

This program includes courses delivered by distance. Admitted students must have the technological knowledge and skills to engage in distance learning (See Educational Leadership Program Handbook).

Code	Title	Credits
Foundation Core		
EDL A610	Orientation to Graduate Studies in Leadership	2
EDL A620	Leadership in Alaska Culture and Social Justice Issues	3
Research Foundation		
EDRS A661	Data-Informed Instruction and Decision Making	3
EDRS A667	Program Evaluation Fundamentals	3
Principal Core		
EDL A637	Organizational Theory and Change	3
EDL A638	Instructional Leadership and Student Learning	3
EDL A639	Politics, Law and Ethics in Leadership	3
EDL A644	School Resource Allocation and Management	3
EDL A692A	Principal Seminar I	3
EDL A692B	Principal Seminar II	3
EDL A695	Principal Internship	6
Total		**35**

A minimum of 35 credits is required for the degree.

State-Approved Verification Form and Alaska Certification

Following are the requirements for a state-approved verification form for the Alaska Type B Administrative Certificate with a principal endorsement:

- Completed all program courses with a minimum grade of C.
- Received a cumulative GPA of 3.00 in the program coursework.
- Posted MEd on transcript.
- Met all requirements for a current Alaska Teacher Certificate or Type C Special Services Certificate.
- Completed three years of successful certificated contract experience as a teacher or special services provider.
- Demonstrated technology skills appropriate to the field.

Requirements for administrative certification within the state of Alaska can be found at the Alaska Department of Education and Early Development (http://www.eed.state.ak.us/).

This program is designed to meet the educational requirements for professional licensure or certification in the State of Alaska. However, the program might not meet the educational requirements for professional licensure or certification in other states. Please see UAA's Licensure and Certification website (https://www.uaa.alaska.edu/academics/office-of-academic-affairs/licensure.cshtml/) for more information.

Program Student Learning Outcomes

Student learning outcomes for the MEd in Educational Leadership are based on the National Educational Leadership Preparation (NELP) Program Standards. Students who complete the Educational Leadership degree program will be able to:

- Collaboratively lead, design, and implement a school mission, vision, and process for continuous improvement that reflects a core set of values and priorities that include data use, technology, equity, diversity, digital citizenship, and community.
- Understand and demonstrate the capacity to advocate for ethical decisions and cultivate and enact professional norms.
- Develop and maintain a supportive, equitable, culturally responsive, and inclusive school culture.
- Evaluate, develop, and implement coherent systems of curriculum, instruction, data systems, supports, and assessment.

- Engage families, community, and school personnel in order to strengthen student learning, support school improvement, and advocate for the needs of their school and community.
- Improve management, communication, technology, school-level governance, and operation systems to develop and improve data-informed and equitable school resource plans and to apply laws, policies, and regulations.
- Build the school's professional capacity, engage staff in the development of a collaborative professional culture, and improve systems of staff supervision, evaluation, support, and professional learning.

Graduate Certificate in Educational Leadership: Principal (K-8, 7-12, or K-8 & 7-12)

The Graduate Certificate in Educational Leadership: Principal is designed for individuals with master's degrees who are seeking advanced professional preparation to become principals.

This program is designed to meet the educational requirements for professional licensure or certification in the State of Alaska. However, the program might not meet the educational requirements for professional licensure or certification in other states. Please see UAA's Licensure and Certification website (https://www.uaa.alaska.edu/academics/office-of-academic-affairs/licensure.cshtml/) for more information.

Admission Requirements

- Complete the Admission Requirements for Graduate Certificates (p. 43).
- Complete the following admission requirements for the program:
  - Hold a master's degree from an institutionally accredited institution.
  - Document a minimum of 6 credits in graduate-level educational research methodology.
  - Hold appropriate certification: current teacher or special services provider (Type C) certificate or equivalent.
  - Provide a resume documenting educational experience including at least three years of experience as a certificated elementary teacher, secondary teacher or special services provider (Type C).
  - Submit a writing sample.
  - Submit three letters of recommendation or rating forms from professional references. At least one of the professional references must be from a current educational supervisor who has evaluated the candidate.
  - Contact the School of Education (https://www.uaa.alaska.edu/academics/school-of-education/) for an admissions packet.

Background Check Requirements

See School of Education Field Placements. (p. 389)

Graduation Requirements

- Complete the General University Requirements for Graduate Certificates (p. 364).
- Complete the program requirements below:

This program includes courses delivered by distance. Admitted students must have the technological knowledge and skills to engage in distance learning (See Educational Leadership Program Handbook).

Code	Title	Credits
EDL A610	Orientation to Graduate Studies in Leadership	2
EDL A637	Organizational Theory and Change	3
EDL A638	Instructional Leadership and Student Learning	3
EDL A639	Politics, Law and Ethics in Leadership	3
EDL A644	School Resource Allocation and Management	3
EDL A692A	Principal Seminar I	3
EDL A692B	Principal Seminar II	3
EDL A695	Principal Internship	6
Total		**26**

A minimum of 26 credits is required for the certificate.

State-Approved Verification Form and Alaska Certification

Following are the requirements for a state-approved verification form for the Alaska Type B Administrative Certificate with a principal endorsement:

- Completed all program courses with a minimum grade of C.
- Received a cumulative GPA of 3.00 in the program coursework.
- Posted Graduate Certificate on the transcript.
- Met all requirements for a current Alaska Teacher Certificate or Type C Special Services Certificate.
- Completed three years of successful certificated contract experience as a teacher or special services provider.
- Earned a master's degree from an institutionally accredited institution.
- Demonstrated technology skills appropriate to the field.

Requirements for administrative certification within the state of Alaska can be found at the Alaska Department of Education and Early Development (http://www.eed.state.ak.us/).

Program Student Learning Outcomes

Student outcomes for these certificates are based on the National Educational Leadership Preparation (NELP) Program Standards. Students who complete the Educational Leadership Graduate Certificate programs will be able to:

- Collaboratively lead, design, and implement a school mission, vision, and process for continuous improvement that reflects a core set of values and priorities that include data use, technology, equity, diversity, digital citizenship, and community.
- Understand and demonstrate the capacity to advocate for ethical decisions and cultivate and enact professional norms.
- Develop and maintain a supportive, equitable, culturally responsive, and inclusive school culture.
- Evaluate, develop, and implement coherent systems of curriculum, instruction, data systems, supports, and assessment.
- Engage families, community, and school personnel in order to strengthen student learning, support school improvement, and advocate for the needs of their school and community.
- Improve management, communication, technology, school-level governance, and operation systems to develop and improve data-informed and equitable school resource plans and to apply laws, policies, and regulations.
- Build the school's professional capacity, engage staff in the development of a collaborative professional culture, and improve systems of staff supervision, evaluation, support, and professional learning.

Graduate Certificate in Indigenizing Education

The Graduate Certificate in Indigenizing Education prepares educators, Indigenous (and non-Indigenous) leaders, and other professionals to design and implement culturally sustaining education systems, curricula, and pedagogies for students in K-12 schools, universities, and different education settings.

Admission Requirements

- Complete the Admission Requirements for Graduate Certificates (p. 43).
- Satisfy the admissions requirements for the program:
  - Provide at least two letters of recommendation addressing the applicant's potential for program success.
  - Submit a current resume.
  - Submit a writing sample.
  - Contact the School of Education (https://www.uaa.alaska.edu/academics/school-of-education/) for an admissions packet.

Special Considerations

This program includes courses delivered by distance. Admitted students must have the technological knowledge and skills to engage in distance learning.

Graduation Requirements

- Complete the General University Requirements for Graduate Certificates. (p. 364)
- Complete the following major requirements:

Code	Title	Credits
EDIE A612	Indigenous Epistemologies in Alaska	3
EDIE A630	Indigenous Ways of Knowing	3
EDIE A641	Indigenizing Learning and Organizations	3
EDIE A658	Indigenizing Teaching and Education System [1]	3
EDIE A664	Tribal Governance in Education	3
Total		**15**

[1] *Recommend taking EDIE A658 as the last course.*

A minimum of 15 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with a Graduate Certificate in Indigenizing Education will be able to:

- Describe the value, history, and relationship of Indigenous ways of knowing, Indigenous peoples in Alaska, and education.
- Identify approaches and strategies to Indigenize education systems and teachings based on Indigenous cultures, languages, and views.
- Analyze and reframe the role of tribal governance in an educational system or problem.
- Design an age-appropriate, contextualized Indigenized curriculum/plan.
- Compare principles and strategies found in Indigenized education systems and teaching practices.

Graduate Certificate in Language and Literacy Education

The Graduate Certificate in Language and Literacy Education is designed for individuals seeking advanced professional preparation to increase knowledge and skills in working with English language learners in the P-12 setting. Those who teach English language learners in public or private settings, both in the United States and abroad, may enhance their knowledge and practice by completing this standards-based program.

English as a Second Language (ESL) Concentration

The ESL concentration is for candidates who are seeking one of the following:

- Institutional Recommendation for an English as a Second Language (ESL) endorsement on a current teacher certificate; or
- Advanced preparation in ESL for increasing professional performance in community programs.

Admission Requirements

- Complete the Admission Requirements for Graduate Certificates (p. 43).
- Satisfy the admissions requirements for the program:
  - Document professional background (must hold or be eligible to hold a teacher certificate from the State of Alaska if seeking an ESL endorsement).
  - Provide a minimum of two letters of recommendation addressing the applicant's potential for program success.
  - Submit a current resume.
  - Submit a writing sample.
  - Contact the School of Education (https://www.uaa.alaska.edu/academics/school-of-education/) for an admissions packet.

Background Check Requirements

See School of Education Field Placements (p. 389).

Graduation Requirements

- Complete the General University Requirements for Graduate Certificates. (p. 364)
- Meet the Teaching English to Speakers of Other Languages (TESOL) Standards for ESL teachers.
- Complete the following program requirements:

Code	Title	Credits
EDRL A671	Language, Reading, and Culture	3
EDRL A674	Foundational Theories of Language and Literacy Development	3
EDRL A675	Language and Literacy Methods	3
EDRL A679	Language and Reading in the Content Areas	3
EDRL A680	Instruction and Assessment	6
Total		**18**

A minimum of 18 credits is required for the certificate.

This program includes courses delivered by distance. Admitted students must have the technological knowledge and skills to engage in distance learning.

Coursework applied to the certificate may apply to the M.Ed. in Teaching and Learning (UAA) and the Reading Specialist endorsement and M.Ed. (UAS) with program faculty approval.

State-Approved Verification Form and Alaska Teacher Certification

Following are the requirements for a state-approved verification form for an ESL endorsement:

- Professional Teacher Certificate or equivalent.
- Completion of all program requirements as indicated above.
- Posted Graduate Certificate on transcript.
- Demonstrated technology skills appropriate to the field.

Program Student Learning Outcomes

The student outcomes for this concentration are based on the 2018 Teachers of English to Speakers of Other Languages (TESOL) (http://www.tesol.org) standards. Students who complete the Graduate Certificate in Language Education with a concentration in English as a Second Language will:

- Candidates demonstrate knowledge of English language structures, English language use, second language acquisition and development, and language processes to help English Language Learners (ELLs) acquire academic language and literacies specific to various content areas.
- Candidates demonstrate and apply knowledge of the impact of dynamic academic, personal, familial, cultural, social, and sociopolitical contexts on the education and language acquisition of ELLs as supported by research and theories. Candidates investigate the academic and personal characteristics of each ELL, as well as family circumstances and literacy practices, to develop individualized, effective instructional and assessment practices for their ELLs. Candidates recognize how educator identity, role, culture, and biases impact the interpretation of ELLs' strengths and needs.
- Candidates plan supportive environments for ELLs, design and implement standards-based instruction using evidence-based, ELL-centered, interactive approaches. Candidates make instructional decisions by reflecting on individual ELL outcomes and adjusting instruction. Candidates demonstrate understanding of the role of collaboration with colleagues and communication with families to support their ELLs' acquisition of English language and literacies in the content areas. Candidates use and adapt relevant resources, including appropriate technology, to effectively plan, develop, implement, and communicate about instruction for ELLs.
- Candidates apply assessment principles to analyze and interpret multiple and varied assessments for ELLs, including classroom-based, standardized, and language proficiency assessments. Candidates understand how to analyze and interpret data to make informed decisions that promote English language and content learning. Candidates understand the importance of communicating results to other educators, ELLs, and ELLs' families.
- Candidates demonstrate professionalism and leadership by collaborating with other educators, knowing policies and legislation and the rights of ELLs, advocating for ELLs and their families, engaging in self-assessment and reflection, pursuing continuous professional development, and honing their teaching practice through supervised teaching.

Graduate Certificate in Special Education

The Graduate Certificate in Special Education provides candidates with the specialized knowledge of assessment and intervention strategies that support the learning of children with exceptional learning needs for grades K-8 (Elementary) or grades 7-12 (Secondary). The graduate certificate program leads to an endorsement in special education on an existing teacher certificate in the State of Alaska.

This program is designed to meet the educational requirements for professional licensure or certification in the State of Alaska. However, the program might not meet the educational requirements for professional licensure or certification in other states. Please see UAA's Licensure and Certification website (https://www.uaa.alaska.edu/academics/office-of-academic-affairs/licensure.cshtml/) for more information.

Admission Requirements

- Complete the Admission Requirements for Graduate Certificates (p. 43).
- Complete the admissions requirements for the program:
  - Hold a current teaching certificate.
  - Submit a resume documenting one year of appropriate, recent experience with children experiencing disabilities.
  - Provide three professional references.
  - Submit a writing sample.
  - Contact the School of Education (https://www.uaa.alaska.edu/academics/school-of-education/) (SOE) for an admissions packet.

Candidates must receive approval from their advisor prior to taking coursework from another institution intended to satisfy requirements for the graduate certificate.

The School of Education allows access to coursework through a variety of methodologies and delivery formats, including distance education. Candidates must have the technological knowledge, skills and access to engage in distance learning.

Background Check Requirements

See School of Education Field Placements. (p. 389)

Graduation Requirements

- Complete the General University Requirements for Graduate Certificates (p. 364).
- Complete the following major requirements:

Code	Title	Credits
Core Courses		
EDSE A610	Clinical Assessment: Eligibility and Program Planning	3
EDSE A612	Curriculum and Strategies I: Low Incidence	3
EDSE A622	Curriculum and Strategies II: High Incidence	3
EDSE A623	Language and Literacy: Best Practices in Assessment and Intervention	3
EDSE A625	Teaching Mathematics to Special Learners	3
EDSE A692	Internship Seminar in Special Education Teaching	1-2
Concentration		
Complete one of the following concentrations:		9
Elementary Education		
EDSE A674	Family Partnerships in Early Childhood Special Education	
or EDSE A623Y	Strategies and Interventions: Preschool Special Education	
or PSY A623Y	Strategies and Interventions: Preschool Special Education	
EDSE A695E	Advanced Internship in Special Education: Elementary	
Secondary Education		
EDSE A686	Transition Services for Secondary Students with Disabilities	
EDSE A695S	Advanced Internship in Special Education: Secondary	
Total		**25-26**

Meet the Council for Exceptional Children (CEC) standards.

A minimum of 25 credits is required for the degree.

Coursework applied to the certificate may apply to the MEd with faculty advisor approval.

State-Approved Verification Form & Alaska Teacher Certification

Following are the requirements for a state-approved verification form for a special education endorsement.

- Hold a professional teacher certificate.
- Completed all required courses with a minimum grade of C and a minimum cumulative GPA of 3.00.
- Completed internships and a professional portfolio documenting attainment of Council for Exceptional Children (CEC) standards.
- Passed the Praxis II in Special Education as required by the Alaska Department of Education and Early Development.
- Posted Graduate Certificate on transcript.
- Demonstrated technology skills appropriate to the field.

Note Concerning Alaska Teaching Certification:

The state-approved verification form for special education endorsement on an existing teaching certificate will be at the grade range of that certificate. DEED may have additional requirements for certification/

endorsement. Additional requirements for teaching certification within the state of Alaska can be found at the Alaska Department of Education and Early Development (http://www.eed.state.ak.us/).

Program Student Learning Outcomes

Student outcomes for the Special Education Graduate Certificate program are based on the professional standards of the Council of Exceptional Children (CEC) located at www.cec.sped.org (http://www.cec.sped.org). Students who complete this program will be able to:

- Utilize a variety of assessments to identify specific areas of student strengths and weaknesses and use the results to guide instruction.
- Individualize instruction to meet the specific needs of students with disabilities in inclusive settings.
- Support and promote inclusiveness and equity for students.
- Apply the legal and ethical principles associated with special education.
- Promote a positive social environment for all students, particularly those with significant emotional and/or behavioral disorders.
- Develop and maintain an atmosphere of collaboration with teachers, parents, administrators, and paraprofessionals.
- Critically analyze and apply principles of research.
- Demonstrate literacy regarding theoretical perspectives associated with human development and learning.

Master of Education in Special Education

The Master of Education (M.Ed.) in Special Education has two options:

- Special education concentration
- Special education administration concentration — *admission suspended*

The M.Ed. in Special Education with a special education concentration is designed for individuals who desire advanced professional preparation in special education. The program encompasses theory, research and practice relating to individuals who experience disabilities.

The M.Ed. in Special Education provides candidates with the knowledge and application of assessment and intervention strategies that support the learning of children with exceptional learning for grades K-8 (Elementary) or 7-12 (Secondary), and aims to prepare scholarly practitioners grounded in purpose and research.

Admission Requirements

- Complete the Admission Requirements for Graduate Degrees (p. 43) and the School of Education (SOE) M.Ed. Admission Requirements (p.).
- Submit an application to the M.Ed. in Special Education Program. Contact the Graduate Studies Department at (907) 786-4450.
- Submit proof of current teaching certification.

The SOE allows access to coursework through a variety of methodologies and delivery formats, including distance education. Candidates must have the technological knowledge, skills, and access to engage in distance learning. The following courses are required for completion of the program.

Graduation Requirements

- Complete the General University Requirements for Graduate Degrees. (p. 358)
- Complete the School of Education M.Ed. Graduation Requirements (p.).
- Complete the program requirements below.
- Prior to graduation, students must also satisfactorily complete a Special Education Praxis II, related to the student's area of focus, and approved by their advisor.

Candidates admitted or seeking admission to the M.Ed. in Special Education must receive approval from their advisor prior to taking coursework from another institution intended to satisfy requirements for the program.

Code	Title	Credits
Core Courses		
EDSE A610	Clinical Assessment: Eligibility and Program Planning	3
EDSE A612	Curriculum and Strategies I: Low Incidence	3
EDSE A622	Curriculum and Strategies II: High Incidence	3
EDSE A623	Language and Literacy: Best Practices in Assessment and Intervention	3
EDSE A624	Social/Emotional Development, Assessment, and Intervention	3
EDSE A625	Teaching Mathematics to Special Learners	3
EDSE A632	Special Education Law: Principles and Practices	3
Research Courses [1]		
EDRS A660	Fundamentals of Research in Education	3
Research Elective by Advisement [1]		3
Concentration		
Complete one of the following concentrations:		9
Elementary Special Education		
EDSE A674	Family Partnerships in Early Childhood Special Education	
EDSE A695E	Advanced Internship in Special Education: Elementary	
or		
EDSE/PSY A611Y	Assessment in Preschool Special Education	
and		
EDSE/PSY A623Y	Strategies and Interventions: Preschool Special Education	

Secondary Special Education	
EDSE A686	Transition Services for Secondary Students with Disabilities
EDSE A695S	Advanced Internship in Special Education: Secondary
or EDSY A661	Assessment in Secondary Classrooms
Total	**36**

[1] *EDRS A660 and research credits by advisement may be waived for candidates entering the program with a master's degree. Candidates admitted or seeking admission to the M.Ed. in Special Education must receive approval from their advisor prior to taking coursework from another institution intended to satisfy requirements for the master's degree.*

A total of 36 credits is required for the degree.

Field Placements

Some courses in the special education program require field placements and/or internship placements. The School of Education does not guarantee placements as they are contingent on school district and agency partners. The university offers placements across the state of Alaska. Out-of-state placements will require additional approvals and are not guaranteed.

Requirements for administrative certification within the state of Alaska can be found at the Alaska Department of Education and Early Development (http://www.eed.state.ak.us/).

This program is designed to meet the educational requirements for professional licensure or certification in the State of Alaska. However, the program might not meet the educational requirements for professional licensure or certification in other states. Please see UAA's Licensure and Certification website (https://www.uaa.alaska.edu/academics/office-of-academic-affairs/licensure.cshtml/) for more information.

Program Student Learning Outcomes

Student outcomes for the program are based on the professional standards of the Council for Exceptional Children (CEC) located at www.cec.sped.org (http://www.cec.sped.org).

Students who complete this program will be able to:

- Utilize a variety of assessments to identify specific areas of student strengths and weaknesses and use the results to guide instruction.
- Individualize instruction to meet the specific needs of students with disabilities in inclusive settings.
- Support and promote inclusiveness and equity for students
- Apply the legal and ethical principles associated with special education.
- Promote a positive social environment for all students, particularly those with significant emotional and/or behavioral disorders.
- Develop and maintain an atmosphere of collaboration with teachers, parents, administrators, and paraprofessionals.
- Critically analyze and apply principles of research.
- Demonstrate literacy regarding theoretical perspectives associated with human development and learning.

Master of Education in Teaching and Learning

The Master of Education (MEd) in Teaching and Learning is designed for professionals seeking advanced studies in education. The program supports students' development as scholarly practitioners through coursework and a capstone portfolio. The program examines curriculum, teaching, and learning in Alaska and similar contexts, emphasizing place-based, culturally sustaining education. In consultation with a faculty advisor, each student identifies a professional focus area related to professional practice and career aspirations.

Admission Requirements

- Complete the Admission Requirements for Graduate Degrees (p. 43).
- Complete the School of Education MEd Admission Requirements (p.).
- Complete the Department of Graduate Studies in Education, Indigenizing Education, and Leadership application packet, including:
  - A resume documenting at least one year[1] of relevant professional experience
  - An essay writing sample
  - Two letters of reference
- Contact the School of Education's Department of Graduate Studies in Education, Indigenizing Education, and Leadership for more information: (907) 786-4450.

[1] *First-year teachers who have completed an approved preservice program and are working as professional educators will be considered for admission.*

Background Check Requirements

See School of Education Field Placements (p. 389).

Graduation Requirements

- Complete the General University Requirements for Graduate Degrees (p. 358).
- Complete the School of Education MEd Graduation Requirements (p.).
- Students complete a portfolio that demonstrates attainment of the Program Student Learning Outcomes. The portfolio, developed in EDTL A680, includes an applied research project, selected artifacts, and reflections on personal learning.
- Complete the following major requirements:

Code	Title	Credits
Teaching and Learning Core		
EDTL A651	Curriculum Theory and Design	3
Complete two courses from the following list or other advisor approved courses:		6
EDL A620	Leadership in Alaska Culture and Social Justice Issues	
EDRS A661	Data-Informed Instruction and Decision Making	
EDRS A662	Action Research in Education	
EDTL A650	Mindfulness in Education	
EDTL A690	Selected Topics in Teaching and Learning	
EDTL A692	Seminar in Culturally Responsive Education	
Research		
EDRS A660	Fundamentals of Research in Education [1]	3
EDTL A680	Teaching and Learning Capstone Portfolio [2]	3
Professional Focus Area [3]		
In consultation with an advisor, select an approved area of focus and complete 15 credits of coursework relevant to the professional focus area.		15
Total		**30**

1. *It is recommended to complete EDRS A660 within the first six credits of program coursework.*
2. *The 3 required credits should be taken as follows: 1 credit at the beginning of program, 1 credit in the middle of program, and 1 credit at the end of program. Contact a faculty advisor for more information.*
3. *Sample focus areas include leadership, adult and professional learning, language and literacy education (ELL), Indigenizing education, instructional design and technology, special education, and children's mental health. Additional focus areas can be identified through consultation with a faculty advisor.*

A minimum of 30 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with a Master of Education in Teaching and Learning will be able to:

- Demonstrate advanced content and pedagogical knowledge for teaching.
- Use research to inform professional practice.
- Explain the relationship between education and social justice.
- Demonstrate leadership skills for the professional context.
- Translate educational theories into culturally responsive practice.

College of Engineering

College of Engineering (https://www.uaa.alaska.edu/academics/college-of-engineering/)

Department of Civil Engineering (https://www.uaa.alaska.edu/academics/college-of-engineering/departments/civil-engineering/)
Engineering and Industry Building (EIB), Room 301
(907) 786-1900

Department of Mechanical Engineering (https://www.uaa.alaska.edu/academics/college-of-engineering/departments/mechanical-engineering/)
Engineering and Computation Building (ECB), Room 301
(907) 786-1900

Department of Project Management (https://www.uaa.alaska.edu/academics/college-of-engineering/departments/project-management/)
Engineering and Industry Building (EIB), Room 301
(907) 786-1900

Master of Science in Artificial Intelligence, Data Science, and Engineering

The Master of Science in Artificial Intelligence, Data Science, and Engineering is collaboratively hosted by the Departments of Computer Science & Engineering, Electrical Engineering, and Geomatics, all housed within the College of Engineering. This unique intersection of disciplines prepares students for the demands of our data-centric era. A master's degree in artificial intelligence, data science, and engineering instills a deep understanding of data-driven challenges and cultivates a skill set that includes critical thinking and the adept application of advanced concepts in solving real-world problems in the field.

Admission Requirements

- Complete the Admission Requirements for Graduate Degrees (p. 43).
- All students must hold a baccalaureate degree in engineering or a closely related discipline and submit to the UAA Office of Admissions:
  - Two letters of recommendation from professors or other professionals particularly qualified to attest to the applicant's qualifications for graduate study.
  - A resume or curriculum vitae.
  - A one-page personal statement discussing the applicant's credentials and readiness for graduate studies. This is an opportunity for the applicant to share relevant information, qualifications, and experience that would not be included with the UAA graduate application form or reflected on official transcripts. It is also the applicant's opportunity to describe their desire and commitment to pursue graduate study in artificial intelligence, data science, and engineering.

Current UAA baccalaureate students enrolled in engineering or a closely related discipline at the conclusion of their junior year may

apply and be admitted to the Master of Science in Artificial Intelligence, Data Science, and Engineering (MS AIDE). Students must complete their baccalaureate degree requirements before receiving the MS AIDE.

Accelerated Master of Science in Artificial Intelligence, Data Science, and Engineering Option

Students enrolled in the Bachelor of Science (BS) in Geomatics, BS in Computer Science (BSCS), BS in Computer Systems Engineering (BSCSE), or the BS in Electrical Engineering (BSEE) at UAA who are interested in pursuing an MS AIDE degree are encouraged to discuss the Accelerated MS in Artificial Intelligence, Data Science, and Engineering Option with their academic advisor(s) and plan on applying for admission to the MS AIDE during their junior year. Students admitted to the Accelerated MS AIDE Option may apply up to nine (9) credits of 400-level coursework from their BS Geomatics, BSCS, BSCSE, or BSEE programs toward the graduation requirements of the MS AIDE. In addition to the admission requirements listed above, the Accelerated MS in Artificial Intelligence, Data Science, and Engineering Option applicant must:

- Be admitted to the BS Geomatics, BSCS, BSCSE, or BSEE at UAA.
- Have completed at least 60% of the credits toward the program requirements of the BS Geomatics, BSCS, BSCSE, or BSEE.
- Have a minimum grade point average (GPA) of 3.00 for all coursework completed at UAA.
- Have completed at least 24 credit hours at UAA.

Graduation Requirements

- Complete the General University Requirements for Graduate Degrees. (p. 358)
- Complete the program requirements below.
- Choose and complete one of the three options below with approval in advance by the graduate advisor.

Code	Title	Credits
Core Courses		
CSCE A615	Advanced Machine Learning	3
CSCE A662	Advanced Data Mining	3
ES A603	Fundamentals of Data Science and Engineering	3
GIS A658	Advanced Database Management Systems	3
STAT A611	General Statistics for Data Science	3
Electives [1]		**9**
CSCE A601	Advanced Software Engineering	
CSCE A605	Advanced Artificial Intelligence	
CSCE A685	Advanced Computer and Machine Vision	
CSCE A690	Selected Topics in Computer Science and Computer Systems Engineering	
CSCE/EE/GIS A695	Professional Internship	
CSCE A698	Individual Research	
or EE A698	Individual Research	
or GIS A698	Individual Research	
EE A615	Energy Data Analytics	
EE A617	Advanced Green Electrical Energy Systems	
EE A627	Smart Grids	
EE A637	Electrical Machines	
EE A675	Communication Networks	
GIS A666	Statistical Analysis for Geospatial Applications	
GIS A667	Digital Image Processing and Analysis	
GIS/EE A690	Selected Topics in Data Science and Engineering	
ME A672	Advanced Linear Systems	
PM A601	Project Management Fundamentals	
STAT A607	Advanced Time Series Analysis	
Advisor Approved Elective		
Total		**24**

[1] *All electives must be approved by the graduate committee/graduate advisor within the areas of computer science and computer engineering, electrical engineering, geomatics, or from another related area of study. Up to 9 credits of electives can be taken at the 400-level.*

Thesis Option

The Thesis Option requires 30 credits of coursework including 6 credits of thesis work completed in CSCE A699, or EE A699, or GEO A699. The completed thesis must meet the following requirements:

- The work must contribute to the body of knowledge in the candidate's field of graduate study. A literature review is required to show how the work is associated with the current state of the art in the candidate's field of graduate study.
- The thesis should be of sufficient quality that it is publishable in a peer-reviewed journal, as judged by the graduate committee.
- The work must demonstrate a command of knowledge and skills associated with the candidate's field of graduate study.
- The thesis proposal, submitted to the graduate committee at least one semester prior to the thesis defense, must present evidence that the above requirements will be satisfied and will generally consist of an explicit problem statement, a literature review, and one or more sections describing the research and the analytical methods that will be applied.
- The thesis must be defended by the student in an oral presentation to the student's graduate committee open to the public.

Code	Title	Credits
CSCE A699	Thesis	6
or EE A699	Thesis	
or GEO A699	Thesis	
Total		**6**

Project Option

The Project Option requires 30 credits of coursework including 6 credits of a data science and engineering project in CSCE A698A, or EE A698A, or GEO A698.

The data science and engineering project will be conducted as an individual study and includes the following items that the student submits to the advisory committee:

- Project proposal to be approved by the graduate advisory committee.
- Draft project report to be reviewed by the graduate advisory committee. The report should consist of an introduction, literature review, methodology (if applicable), results, conclusions, recommendations, and references.
- Final project report incorporating suggestions and improvements as prescribed by the graduate advisory committee.

Code	Title	Credits
CSCE A698A	Project	3
EE A698A	Project	3
GEO A698	Project	3
Total		**9**

Comprehensive Exam Option

The Comprehensive Exam Option requires 30 credits of coursework and a comprehensive exam to be administered in the final semester of study.

Prior to the exam, the student and the student's advisor will review the coursework completed by the student as part of the Graduate Studies Plan. Aspects of that review will be used to create an exam based on four of the courses completed during the program. The final decision on which courses are to be used for the exam will be made by the advisor.

The student and advisor will establish a period of time over which the exam will be taken. Additional requirements for the exam will be articulated to the student prior to the exam date.

Code	Title	Credits
Additional 6 credits of advisor approved electives		6
Comprehensive Exam		
Total		**6**

A minimum of 30 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with a Master of Science in Artificial Intelligence, Data Science, and Engineering will be able to:

- Utilize advanced data engineering and analytical algorithms
- Demonstrate graduate-level theory in data science and engineering
- Apply graduate-level data science and engineering knowledge to the research work or projects
- Communicate and work effectively in a professional environment

Master of Science in Civil Engineering (MSCE)

Admission Requirements

See Admission Requirements for Graduate Degrees (p. 43). All students must hold a baccalaureate degree in an engineering discipline or equivalent.

Accelerated MS in Civil Engineering Option

Bachelor of Science in Civil Engineering (BSCE) students interested in pursuing a Master of Science in Civil Engineering (MSCE) are encouraged to discuss the Accelerated MSCE Option with their academic advisor(s) and plan on applying for admission to the MSCE during their junior year. In addition to the Admission Requirements for Graduate Degrees listed above, the Accelerated MSCE Option applicant must:

1. Be admitted to the UAA BSCE.
2. Have completed at least 60% of the credits toward the BSCE Requirements.
3. Have a minimum grade point average (GPA) of 3.25 for all coursework credited toward the BSCE requirements.

Graduation Requirements

- Complete the General University Requirements for Graduate Degrees (p. 358).
- Complete one of the following options, with approval in advance by the graduate advisor:
  - Thesis Option: 30 credits of course work including satisfactorily completing thesis work, of which at least 6 credits will be CE A699.
  - Project Option: 30 credits of coursework including satisfactorily completing a civil engineering project. At least 3 credits of the course work will be CE A686.
  - Comprehensive Exam Option: 30 credits of coursework and a comprehensive exam to be administered in the final semester of study.
- Complete the program requirements below*.

** Students admitted to the Accelerated MSCE option may apply up to six (6) credit hours of 600-level technical electives from their BSCE toward the graduation requirements of the MSCE.*

Program Requirements

Students must complete coursework in the core competency areas of Arctic, environmental, geotechnical, structures, transportation, or

water resources engineering and one course in mathematics at the 400-level or higher, all with a minimum grade of B. Students electing to complete the project option or the comprehensive exam option must complete one 600-level course from the Engineering, Science and Project Management (ESPM) Department course offerings as part of their required course work. The remaining courses for any of the options shall be selected from any of the following emphasis areas or as approved by the student's graduate committee. Courses at the 400-level must be approved by the student's graduate committee.

Emphasis Areas

Students may choose to pursue a general MSCE. Alternatively, students may choose to pursue an MSCE with an emphasis area recognized on their transcript. Students will qualify for an MSCE with a sub-discipline emphasis by completing 15 credits of 600-level course work in one of the emphasis areas. Only one sub-discipline emphasis may be chosen for sub-discipline emphasis recognition. Graduate courses sorted by emphasis area are as follows:

Code	Title	Credits
Arctic		
AE A682	Ice Engineering	3
AE A683	Arctic Hydrology and Hydraulic Engineering	3
AE A684	Arctic Utility Distribution	3
AE A685	Arctic Applications of Heat and Mass Transfer	3
CE A681	Frozen Ground Engineering	3
Environmental		
AE A684	Arctic Utility Distribution	3
CE A645	Chemical and Physical Water and Wastewater Treatment Processes	3
Geotechnical		
AE A685	Arctic Applications of Heat and Mass Transfer	3
CE A610	Engineering Seismology	3
CE A611	Geotechnical Earthquake Engineering	3
CE A612	Advanced Foundation Design	3
CE A614	Soil Strength and Slope Stability	3
CE A681	Frozen Ground Engineering	3
Structures		
AE A682	Ice Engineering	3
CE A637	Earthquake Resistant Structural Design	3
CE A639	Loads on Structures	3
CE A651	Advanced Structural Analysis	3
CE A652	Advanced Steel Design	3
CE A654	Timber Design	3
Transportation		
CE A623	Traffic Engineering	3
CE A624	Pavement Design	3
CE A625	Highway Engineering	3
Water Resources		
AE A683	Arctic Hydrology and Hydraulic Engineering	3
CE A662	Surface Water Dynamics	3
CE A663	Ground Water Dynamics	3
CE A676	Coastal Engineering	3
CE A677	Coastal Measurements and Analysis	3
CE A679	Sediment Transport and Coastal Processes	3

Thesis Option

The completed thesis must meet the following requirements:

1. The work must contribute to the body of knowledge in the candidate's field of graduate study. A literature review is required to show how the work is associated with the current state of the art in the candidate's field of graduate study.
2. The thesis should be of sufficient quality that it is publishable in a peer-reviewed journal, as judged by the graduate committee.
3. The work must demonstrate command of knowledge and skills associated with the candidate's field of graduate study.
4. The thesis proposal, submitted at least one semester prior to the thesis defense, must present evidence that the above requirements will be satisfied and will generally consist of an explicit problem statement, a literature review, and one or more sections describing the research and the analytical methods that will be applied.
5. The thesis must be defended by the student in an oral presentation to the student's graduate committee.

Civil Engineering Project Option

The civil engineering project will be conducted as an individual study and includes the following items that the student submits to the advisory committee:

1. Project proposal to be approved by the graduate advisory committee.
2. Draft project report to be reviewed by the graduate advisory committee. The report should consist of an introduction, literature review, methodology (if applicable), results, conclusions, recommendations, and references.
3. Final project report incorporating suggestions and improvements as prescribed by the graduate advisory committee.

Comprehensive Exam Option

The comprehensive exam shall be taken in the last semester of the degree program. Prior to the exam, the student and the student's advisor will review the coursework completed by the student as part of the Graduate Studies Plan. Aspects of that review will be used to create an exam based on four of the courses completed during the program. The final decision on which courses are to be used for the exam will be made by the advisor.

The student and advisor will establish a period of time over which the exam will be taken. Additional requirements for the exam will be articulated to the student prior to the exam date.

Licensure and/or Certification

Graduates of the Master of Science in Civil Engineering gain one year of education credit toward obtaining a Professional Engineer license in Alaska.

This program is designed to meet the educational requirements for professional licensure or certification in the State of Alaska. However, the program might not meet the educational requirements for professional licensure or certification in other states. Please see UAA's Licensure and Certification website (https://www.uaa.alaska.edu/academics/office-of-academic-affairs/licensure.cshtml/) for more information.

Program Student Learning Outcomes

In keeping with the program objectives, the expected student learning outcomes of the UAA Master of Science in Civil Engineering include:

- An ability to use advanced methods of analysis,
- An ability to understand advanced civil engineering theory,
- An ability to conduct advanced civil engineering research,
- An ability to apply advanced engineering theory to the design of civil engineering systems, and
- An ability to work effectively within the management framework of organizations responsible for the practice of engineering.

Master of Science in Mechanical Engineering

Admission Requirements

- Complete the Admission Requirements for Graduate Degrees (p. 43).

All students must hold a baccalaureate degree in an engineering or closely related discipline and submit to the UAA Office of Admissions:

1. Two letters of recommendation from professors or other professionals particularly qualified to attest to the applicant's qualifications for graduate study.
2. A resume or curriculum vitae.
3. A one-page personal statement discussing the applicant's credentials and readiness for graduate studies. This is an opportunity for the applicant to share relevant information, qualifications and experience that would not be included with the UAA graduate application form or reflected on official transcripts. It is also the applicant's opportunity to describe their desire and commitment to pursue graduate study in mechanical engineering.

Current UAA baccalaureate students enrolled in engineering or a closely related discipline at the conclusion of their junior year may apply and be admitted to the Master of Science in Mechanical Engineering (MSME) program. Students must complete their baccalaureate degree requirements before receiving the MSME.

Accelerated MS in Mechanical Engineering Option

Bachelor of Science in Mechanical Engineering (BSME) students interested in pursuing an MSME degree are encouraged to discuss the Accelerated MSME Option with their academic advisor(s) and plan on applying for admission to the MSME during their junior year. In addition to the Admission Requirements listed above (excluding the GRE requirement), the Accelerated MSME Option applicant must:

1. Be a current student enrolled in the UAA BSME Program.
2. Have completed 60% of the credits toward the BSME Program Requirements.
3. Have a grade point average (GPA) of 3.25 or higher for all coursework completed at UAA.
4. Have completed at least 24 course credits at UAA.

Graduation Requirements, Thesis Option

- Satisfy the General University Requirements for Graduate Degrees. (p. 358)
- Complete the program requirements below.
- Complete the thesis work approved in advance by the student's graduate committee.

Code	Title	Credits
Complete 12 credits from the following:		12
EE/ME A471	Automatic Control	
ME A608	Mechanical Vibrations	
ME A621	Engineering Finite Element Analysis	
ME A630	Advanced Mechanics of Materials	
ME A642	Advanced Fluid Mechanics	
ME A651	Aerodynamics	
ME A656	Renewable Energy Systems Engineering	
ME A659	Fracture Mechanics	
ME A660	Turbomachinery	
ME A664	Corrosion Processes and Engineering	
ME A672	Advanced Linear Systems	
Complete 12 credits of elective courses (6 credits of 400- or 600-level mathematics or statistics courses are strongly encouraged). [1]		12
Complete 6 credits of thesis coursework:		6
ME A699	Thesis	
Total		**30**

[1] *Students admitted to the Accelerated MSME Option may apply up to nine (9) credits from the BSME.*

Candidacy Requirements

To advance to candidacy, the student must complete:

- All UAA requirements for Advancement to Candidacy (p. 358).
- At least 9 credits of coursework from the approved Graduate Study Plan (GSP).
- A written thesis proposal, submitted to the student's graduate committee at least one semester prior to the thesis defense, presenting evidence that the thesis requirements will be satisfied. The proposal will consist of an explicit problem statement, a literature review, and one or more sections describing the research and analytical methods that will be applied. The proposal is subject to approval by the student's graduate committee following an oral presentation scheduled no sooner than two weeks after submission of the written proposal.

Thesis Requirements

The completed thesis must:

- Describe how the work is associated with the current state of the art in the candidate's graduate field of study.
- Contribute to the body of knowledge in the candidate's field of graduate study.
- Be publishable in either peer-reviewed technical conference proceedings or a peer-reviewed journal as judged by the candidate's graduate committee.
- Demonstrate command of knowledge and skills associated with the candidate's program of graduate study.
- Be defended by the student in an oral presentation to the candidate's graduate committee.

A total of 30 credits is required for the degree.

Graduation Requirements, Non-thesis Option

- Complete the General University Requirements for Graduate Degrees (p. 358).
- Complete the program requirements, and complete one of the following:
  - A comprehensive written examination set by the student's graduate committee.
  - A project fulfilling the project requirements below and a comprehensive oral exam set by the student's graduate committee.

Code	Title	Credits
Complete 15 credits from the following:		15
EE/ME A471	Automatic Control	
ME A608	Mechanical Vibrations	
ME A621	Engineering Finite Element Analysis	
ME A630	Advanced Mechanics of Materials	
ME A642	Advanced Fluid Mechanics	
ME A651	Aerodynamics	
ME A656	Renewable Energy Systems Engineering	
ME A659	Fracture Mechanics	
ME A660	Turbomachinery	
ME A664	Corrosion Processes and Engineering	
ME A672	Advanced Linear Systems	
Choose one of the following:		15
Complete 15 credits of elective coursework [1]		
Complete 12 credits of elective coursework and 3 credits of ME A686 [1]		
Total		**30**

[1] *Students admitted to the Accelerated MSME Option may apply up to nine (9) credits from the BSME.*

Project Requirements

The project must solve a practical engineering problem to the extent that original developments by the student are evident in the project report.

- The project problem and solution must be explained in the context of the current state of the art by means of a thorough review of pertinent literature.
- The project must include advanced technical components directly involving modern practice of mechanical engineering.
- The project must have sufficient scope to clearly demonstrate the student's advanced technical expertise in mechanical engineering.
- The project report must demonstrate command of knowledge and skills directly associated with the student's graduate program of study.
- The written project report, in the judgment of the student's graduate committee, must be publishable in the proceedings of a mechanical engineering specialty conference.
- The project proposal, submitted prior to enrolling in ME A686, must present evidence that the above requirements will be satisfied and will generally consist of an explicit problem statement, a literature review, and one or more sections describing the information and analytical methods to be applied.
- The project is to be orally presented to the student's graduate committee.

A total of 30 credits is required for the degree.

Licensure and/or Certification

Graduates of the Master of Science in Mechanical Engineering gain one year of education credit toward obtaining a Professional Engineer license in Alaska.

This program is designed to meet the educational requirements for professional licensure or certification in the State of Alaska. However, the program might not meet the educational requirements for professional licensure or certification in other states.
Please see UAA's Licensure and Certification website (https://www.uaa.alaska.edu/academics/office-of-academic-affairs/licensure.cshtml/) for more information.

Program Student Learning Outcomes

In keeping with the program objectives, the expected student learning outcomes of the UAA Master of Science in Mechanical Engineering program include an ability to:

- Use in-depth methods of analysis.
- Demonstrate graduate-level mechanical engineering theory.
- Conduct advanced mechanical engineering research and applications.
- Apply graduate-level engineering theory to the design of mechanical engineering systems.
- Work effectively within the professional framework of organizations responsible for the practice of engineering.

Graduate Certificate in Project Management

The Graduate Certificate in Project Management prepares students with relevant graduate-level project management skills necessary to execute projects and lead organizational transformations across all industry sectors, organizations, and disciplines. Project management skills are in demand, flexible and highly transferable enabling students to initiate a career in project management or develop skills to make a career shift.

Admission Requirements

- Complete the Admission Requirements for Graduate Certificates. (p. 43)
- Complete the Admission Requirements (p. 405) for the Master of Science in Project Management (MSPM).

Graduation Requirements

- Complete the General University Requirements for Graduate Certificates. (p. 364)
- Complete the following program requirements with a minimum cumulative GPA of 3.00:

Code	Title	Credits
PM A601	Project Management Fundamentals	3
PM A602	Application of Project Management Processes	3
PM A603	Project Initiation and Planning	3
PM A604	Project Executing, Monitoring and Control	3
Complete 6 credits from the following, 3 of which must be PM:		6
BA A632	Leadership and Organizational Behavior	
PM A612	Advanced Project Time Management	
PM A623	Stakeholder Engagement and Collaboration	
PM A624	Advanced Project Risk Management	
PM A632	Advanced Project Controls	
PM A641	Lean Six Sigma Green Belt	
Total		**18**

A minimum of 18 credits is required for the certificate.

Program Student Learning Outcomes

PMI GAC Accreditation Standards:

- Technical Expertise: Management of projects to meet needs within constraints with reference to professional standards and guides
- Professional Behavior: Ethical and culturally aware stakeholder engagement, communication, leadership, and teamwork.
- Strategic Awareness: Contextual awareness of strategic and operational drivers required to inform decisions and deliver sustained competitive advantage.

UAA Graduate Certificate in Project Management Learning Outcomes:

1. TECHNICAL EXPERTISE: Demonstrate the capability to manage end-to-end projects successfully across a broad range of scale, complexity, scope, environments and inherent risks and constraints through appropriate selection, tailoring and application of knowledge, processes, approaches, tools and techniques.
2. PROFESSIONAL BEHAVIOR: Demonstrate ethical, versatile, and culturally aware leadership, stakeholder engagement, change leadership, and communication skills in a broad range of organizational contexts.
3. STRATEGIC AWARENESS: Demonstrate ability to enhance success of organizations through alignment of project outcomes with strategic objectives and operational drivers.
4. BUSINESS AND PROJECT ANALYTICS: Demonstrate a facility for comprehensive and objective analysis, structured decision-making, process optimization, and problem solving in the project management environment.

Master of Science in Project Management

Admission Requirements

- Complete the Admissions Requirements for Graduate Degrees (p. 43).
- Acceptance to the MS PM is offered to applicants who provide sufficient evidence that they meet the requirements for study at an advanced level. Applicants must meet the minimum UAA graduate admissions requirements. In addition, an entering master's degree student will have:
  - Earned at least a bachelor's degree.
  - Submitted three letters of recommendation from professors or former or current employers or supervisors who are familiar with the candidate's work experience.
  - Provided a statement of professional career objectives related to the study of project management including a description of relevant project management experience.

The faculty reserves the right, where warranted by evaluation of a student's progress and demonstrated knowledge, to require additional coursework or other preparation to ensure the degree candidate possesses adequate professional skills and capabilities. This includes the ability to reason and communicate both effectively and quantitatively, orally, and in writing.

Any requirements stipulated in the Graduate Admission Recommendation Form (GARF) associated with a student's acceptance to the MS PM must be completed within one year for a full-time student, and two years for a part-time graduate student. Failure to satisfy any requirement listed in the GARF will result in a formal departmental review and potential removal from the program.

Application of Undergraduate Courses to MS PM Credit Requirements

Students seeking admission into the MS PM are not eligible to enroll in PM A401 and PM A402. Students that have completed PM A401 and PM A402 during undergraduate studies with a minimum grade of B prior to seeking admission to the MS PM may petition to apply the courses to the graduate degree if the courses were not used to satisfy baccalaureate degree requirements. If those courses were used to complete baccalaureate degree requirements, the student will not be required to repeat PM A601 and PM A602. However, other graduate-level elective courses will be substituted to meet the 33 credit requirement for the MS PM.

Admission Requirements, Accelerated MSPM Option

UAA bachelors degree seeking students interested in pursuing an MSPM degree are encouraged to discuss the Accelerated MSPM Option with their academic advisor(s) and plan on applying for the Accelerated MSPM Option during their junior year. Students admitted to the Accelerated MSPM program are eligible to apply up to nine credits of 400 or 600 level PM coursework towards both their bachelor's degree and MSPM. Applicants must meet the general Admission Requirements listed for Graduate Degrees and the MSPM degree. Additionally, the Accelerated MSPM applicant must:

1. Be a current student enrolled in a UAA bachelor's degree program.
2. Have completed 60% of the credits toward their bachelor's degree program requirements.
3. Receive approval from their undergraduate academic advisor to include up to nine credits from three approved 400 or 600 level PM courses towards their bachelor's degree program.
4. Have a grade point average (GPA) of 3.25 or higher for all coursework completed at UAA.
5. Have completed at least 24 course credits at UAA.

Academic Requirements

Students enrolled in the MS PM must earn a minimum grade of B in all core requirements.

Noncompliance with academic progress expectations will result in probation and possible removal from the program. See Academic Standing in the Graduate Degree Policies (p. 360) for more information.

Advancement to Candidacy

Advancement to Candidacy to the MS PM will be granted to students who have:

1. Previously been accepted fully or in provisional status and satisfied the specified requirements stated in the GARF.
2. Earned a grade of 3.00 (B) or higher in an undergraduate or graduate research methods course or demonstrated evidence of competency in scholarly research.
3. Earned a grade of 3.00 (B) or higher in an undergraduate or graduate statistics course that covers descriptive and inferential statistics.
4. Completed the first three core Project Management (PM) courses with a minimum grade of B in each and with a successful Phase Gate 1 review. This review is conducted to evaluate a student's grade performance and completion of requirements. At the discretion of the program, a student may be eligible to repeat courses to satisfy requirements or be removed from the program.
5. A Phase Gate 2 review is conducted after completion of PM A686A. Students must receive department approval prior to enrollment in PM A686B after they have successfully completed an advisory committee-approved project management plan and Institutional Review Board review (as appropriate).

PM Continuous Registration Policy

Graduate students must demonstrate continuous progress toward program completion. Students pursuing the MS PM must complete at least one approved program course during any consecutive 12-month period to maintain active status in the program. Students not making continuous progress and not on a Graduate School approved leave of absence will be removed from master's degree-seeking status. See Leave of Absence in the Graduate Degrees Policies (p. 360) for additional information.

Program Course Delivery Modality and Technology Requirements and Fees

Course Delivery Modality

Students in the MS PM can attend courses in the classroom and/or by state-of-the-art, real-time video capabilities. This format allows students from across the state and around the world to join local students and faculty in real-time, in the classroom, as an active course participant using readily available off-the-shelf technology. This real-time capability also enables students who must travel or work remotely during the semester to join the class via adhoc connections from wherever they may be located (connection speed permitting). Additionally, all class sessions are recorded and posted to the UAA learning management system after the class session is completed so that students can review the material in the event that a class session is missed. This approach provides flexibility for students to begin and complete the program from wherever their work assignments or personal situations may take them.

Technology Requirements

Enrolled students must have access to a computer and, if participating in a class remotely, an Internet connection speed the department finds acceptable. All students are expected to have basic computer and keyboarding skills prior to entry into the program, for example:

- Word processing (preferably Microsoft Word), presentation software (preferably Microsoft PowerPoint), and spreadsheet software (preferably Microsoft Excel).
- Sending and receiving e-mail with attachments.
- Accessing and navigating the Internet.
- Understanding how to use basic computer file formats, software, and peripheral hardware.

Remote (distance) students, defined as those living and/or participating outside the Municipality of Anchorage, are additionally responsible for:

- Any incremental, individual long-distance or high-speed Internet connection costs (refer to the department webpage (http://www.uaa.alaska.edu/collegeofengineering/programs/pm/) for details).
- Any additional hardware (such as webcams, headsets, etc.) necessary to facilitate class participation.
- Contacting the distance learning coordinator before classes start to set up and arrange for distance delivery.

Tuition Surcharge

The College of Engineering has a tuition surcharge for undergraduate and graduate courses. Please see Tuition and Fees (https://www.uaa.alaska.edu/students/costs/) for more information.

Graduation Requirements

- Complete the General University Requirements for Graduate Degrees (p. 358).
- Complete the following major requirements. Core Requirements must be completed with a minimum grade of B.

Code	Title	Credits
Core Requirements		
PM Overview:		
PM A601	Project Management Fundamentals	3
PM A602	Application of Project Management Processes	3
PM Process Series:		
PM A603	Project Initiation and Planning	3
PM A604	Project Executing, Monitoring and Control	3
PM A605	Operational Integration and Project Closure	3
Capstone Project Demonstration of PM Mastery:		
PM A686A	Capstone Project: Initiating and Planning	3
PM A686B	Capstone Project: Executing, Controlling and Closing	3
Complete one of the following options:		**12**
Option 1: Project Management Electives		
Complete 12 credits of graduate-level electives from the PM course list. A student may petition one 3-credit graduate-level elective from outside the program to count toward this requirement.		
Option 2: Leadership Emphasis		
Required courses:		
BA A610	Business Intelligence and Analytics	
BA A632	Leadership and Organizational Behavior	
Complete 3 additional credits from the following:		
BA A621	Change Leadership and Facilitation	
BA A627	Leadership in the Multicultural Organization	
BA A628	Executive Leadership	
Complete one 3-credit PM elective.		
Option 3: Business Emphasis		
Complete 9 credits from the following:		
ACCT A650	Seminar in Executive Uses of Accounting	
BA A610	Business Intelligence and Analytics	
BA A636	Financial Decision Making	
ECON A625	Economics and Public Policy	
Complete one 3-credit PM elective.		
Total		**33**

A minimum of 33 credits is required for the degree.

Capstone Project

Three credits of PM A686A and three credits of PM A686B, taken over two semesters, are required for the degree.

All capstone project work must meet the following requirements:

- The work must contribute to the body of knowledge in the student's graduate field of study.
- A literature search is required to demonstrate how the work is associated with the current state of the art in the student's graduate field of study.
- The final capstone project report, as judged by the student's graduate advisory committee, must be of sufficient quality to justify publication in either a peer-reviewed technical conference proceeding or a peer-reviewed journal. Publication of a manuscript in a journal or conference paper is not a requirement for graduation, but submissions are encouraged.
- The work must demonstrate command of knowledge and skills associated with the student's graduate program of study.
- The project must have sufficient scope to clearly demonstrate the student's advanced expertise in and mastery of project management.
- The work must require a level of effort consistent with 6 graduate-level credit hours.
- The student must satisfactorily present their capstone project and be evaluated by a panel of faculty and project management practitioners.

Program Student Learning Outcomes

Student learning outcomes are based on the professional best practices of the Project Management Institute (PMI) Global Accreditation Center (GAC) standards and guidelines, and UAA paradigms.

PMI GAC Accreditation Standards:

- Technical Expertise: Management of projects to meet needs within constraints with reference to professional standards and guides
- Professional Behavior: Ethical and culturally aware stakeholder engagement, communication, leadership, and teamwork.
- Strategic Awareness: Contextual awareness of strategic and operational drivers required to inform decisions and deliver sustained competitive advantage.

UAA MSPM Program Learning Outcomes

Students who successfully complete the program will:

1. TECHNICAL EXPERTISE: Demonstrate the capability to manage end-to-end projects successfully across a broad range of scale, complexity, scope, environments and inherent risks and constraints through appropriate selection, tailoring and application of knowledge, processes, approaches, tools and techniques.
2. PROFESSIONAL BEHAVIOR: Demonstrate ethical, versatile, and culturally aware leadership, stakeholder engagement, change leadership, and communication skills in a broad range of organizational contexts.
3. STRATEGIC AWARENESS: Demonstrate ability to enhance success of organizations through alignment of project outcomes with strategic objectives and operational drivers.
4. BUSINESS AND PROJECT ANALYTICS: Demonstrate a facility for comprehensive and objective analysis, structured decision-making, process optimization, and problem solving in the project management environment.
5. CONTRIBUTION TO BODY OF KNOWLEDGE: Conduct research that contributes to and expands the diverse project management body of knowledge.

College of Health

College of Health (https://www.uaa.alaska.edu/academics/college-of-health/)

Division of Population Health Sciences (https://www.uaa.alaska.edu/academics/college-of-health/departments/population-health-sciences/)
Professional Studies Building (PSB), Room 206
(907) 786-6545, dphs@alaska.edu

School of Nursing (https://www.uaa.alaska.edu/academics/college-of-health/departments/school-of-nursing/)
Health Sciences Building (HSB), Room 101
(907) 786-4550, nursing@alaska.edu

School of Preventive and Therapeutic Sciences (https://www.uaa.alaska.edu/academics/college-of-health/departments/preventive-and-therapeutic-sciences/)
Professional Studies Building (PSB), Room 146
(907) 786-6933, uaa.therapeutic.sciences@alaska.edu

School of Social Work (https://www.uaa.alaska.edu/academics/college-of-health/departments/school-of-social-work/index.cshtml/)
Professional Studies Building (PSB), Suite 234
(907) 786-6900, uaa_socialwork@alaska.edu

Master of Science in Dietetics and Nutrition

Registered dietitian nutritionists (RDNs) are trained dietetics and nutrition professionals who have met the strict educational and experiential standards set forth by the Commission on Dietetic Registration and the Accreditation Council for Education in Nutrition and Dietetics (ACEND) of the Academy of Nutrition and Dietetics. RDNs work in a wide variety of settings, including health care, business and industry, community/public health, education, research, government agencies and private practice. In order to be successful in their field, RDNs need a strong science foundation including courses in food and nutrition sciences, biochemistry, physiology, microbiology, anatomy, chemistry, foodservice systems, business, medical nutrition therapy, behavioral social sciences and communication.

The mission of the Master of Science (MS) in Dietetics and Nutrition is to guide the future of dietetics and nutrition in Alaska through the preparation of competent entry-level registered dietitian nutritionists. Unique experiences are provided as the program places an emphasis on preparing advanced generalist RDNs for the cultural diversities and practice environments in Alaska.

The Dietetics and Nutrition (DN) didactic courses are delivered primarily online to facilitate access to the Master of Science in Dietetics and Nutrition statewide. Rotation sites for the supervised experiential

learning (practicum) courses are located throughout the state of Alaska (at this time), and may include Anchorage, Fairbanks, Kodiak, Kenai, Soldotna, Sitka, Juneau, Bethel, Palmer, Wasilla, Kotzebue, Nome and Utqiagvik. Most rotation sites are located in health care settings.

Expenses beyond tuition generally include, but are not limited to, travel and housing for supervised experiential learning (practicum) rotations, activity fees, lab fees, student organization membership, immunizations, fingerprinting and criminal background checks, cost of ServSafe certification and food/supplies for some DN courses.

Two tracks are offered in the MS in Dietetics and Nutrition:

1. **Pre-Professional track**: This track is for students who have already earned a minimum of a bachelor's degree and a Didactic Program in Dietetics (DPD) verification statement (or the required prerequisite coursework) from a program accredited by ACEND and are seeking to complete the coursework and supervised experiential learning requirements (1000 hour of practicum work) to qualify for the RDN exam, integrated in one program.
2. **Current RDN track**: This track is for students who are already credentialed as a RDN through the Commission on Dietetic Registration and are seeking additional study in dietetics and nutrition.

Licensure and/or Certification

This program is designed to meet the educational requirements for professional licensure or certification in the State of Alaska. However, the program might not meet the educational requirements for professional licensure or certification in other states.
Please see UAA's Licensure and Certification website (https://www.uaa.alaska.edu/academics/office-of-academic-affairs/licensure.cshtml/) for more information.

Admission Requirements

- Complete the Admission Requirements for Graduate Degrees (p. 43).
- Submit the following admission requirements for both tracks of the MS in Dietetics and Nutrition (see the DN program website for the requirements for each admission requirement):
  - DPD verification statement or submission of official transcripts documenting completion of all prerequisite courses
  - Personal statement
  - Current resume or CV
  - Two letters of recommendation
  - A video interview
  - Application to UAA graduate school
  - International students seeking admission to UAA must provide proof of English proficiency.
- For the Current RDN track only, complete the following admission requirements:
  - Copy of current RD/RDN credential from the Commission on Dietetic Registration.
- Upon successful admission to the Pre-Professional track, prior to starting the program, documentation of the pre-matriculation requirements is required. See the DN program website for the current list of pre-matriculation requirements. Pre-matriculation requirements include, but are not limited to:
  - Necessary professional and health insurance coverage required to work in hospitals and health care facilities,
  - All necessary security background checks to meet state and federal requirements,
  - All necessary immunizations required to work in hospitals and other health care facilities.

The MS in Dietetics and Nutrition admissions process is competitive. See the Dietetics and Nutrition Program website (https://www.uaa.alaska.edu/academics/college-of-health/departments/preventive-and-therapeutic-sciences/dietetics-nutrition/) for information on the application submission process and program advising information.

Graduation Requirements

- Complete the General University Requirements for Graduate Degrees (p. 358).
- Complete the program requirements below with a minimum grade of B or P:

Code	Title	Credits
Core Courses		
DN A615	Public Health Nutrition	3
DN A630	Applied Research in Nutrition and Dietetics	3
DN A641	Advanced Medical Nutrition Therapy - Ambulatory	3
DN A642	Advanced Medical Nutrition Therapy - Acute	3
DN A650	The Business of Dietetics	3
DN A660	Contemporary Practice in Dietetics and Nutrition	3
DN A698	Dietetics & Nutrition Graduate Project	3-6
or DN A699	Dietetics & Nutrition Graduate Thesis	
NSG A633	Statistics for Advanced Practice	3
Total		**24-27**

Complete one of the following tracks:

Pre-Professional Track

Code	Title	Credits
Experiential Learning		**10**
Experiential Learning requirement can be satisfied by any combination of the following courses with prior advisor approval:		
DN A695G	Supervised Experiential Learning - Management	
DN A695H	Supervised Experiential Learning - Public Health	

DN A695I	Supervised Experiential Learning - Specialty
DN A695J	Supervised Experiential Learning - Medical Nutrition Therapy - Ambulatory
DN A695K	Supervised Experiential Learning - Medical Nutrition Therapy - Acute
Advisor approved credit by examination or portfolio	
Total	**10**

A minimum of 34 credits is required for the Pre-Professional track.

Up to 9 semester credits from a graduate program accredited by the Accreditation Council for Education in Nutrition and Dietetics may be transferred to UAA and counted toward degree completion.

Current RDN Track

Code	Title	Credits
Advisor approved elective		3-6
Total		**3-6**

A minimum of 30 credits is required for the Current RDN Track.

Program Student Learning Outcomes

Students graduating with a Master of Science in Dietetics and Nutrition will be able to:

- Apply foundational sciences to food and nutrition knowledge to meet the needs of individuals, groups and organizations.
- Apply and integrate client/patient-centered principles and competent nutrition and dietetics practice to ensure positive outcomes.
- Apply food systems principles and management skills to ensure safe and efficient delivery of food and water.
- Apply community and population nutrition health theories when providing support to community or population nutrition programs.
- Demonstrate leadership, business and management principles to guide practice and achieve operational goals.
- Integrate evidence-informed practice, research principles, and critical thinking into practice.
- Demonstrate professional behaviors and effective communication in all nutrition and dietetics interactions.

Graduate Certificate in Family Nurse Practitioner

The Family Nurse Practitioner (FNP) Graduate Certificate is available to nurses who already have a graduate degree in nursing and are certified as psychiatric mental health nurse practitioners, adult nurse practitioners, women's health nurse practitioners or pediatric nurse practitioners. The program expands their scope of practice to assist them to acquire the theory, knowledge and skills needed to provide primary care for families. Courses and seminars are scheduled to allow students to attend classes with content specific to expand their specialty practice to include a family scope. The curriculum includes didactic, seminar and clinical hours in practicum coursework.

Graduates of the FNP certificate option will be eligible to take the family nurse practitioner examination offered by the American Nurses Credentialing Center (ANCC) or the American Academy of Nurse Practitioners (AANP) to become certified as a family nurse practitioner.

Scheduling of Courses

The FNP clinical courses are in a hybrid format with some short face-to-face intensives required (usually 1-2 campus visits/semester). Additional course work is held throughout the semester at scheduled times, with distance students participating live via software programs or video conferencing. All FNP clinical must be completed in the state of Alaska and in most instances clinical is done in the students' own community. Decisions for clinical sites are based on there being adequate experiences and preceptors locally that allow the student to meet the course and program outcomes.

Licensure and/or Certification

This program is designed to meet the educational requirements for professional licensure or certification in the State of Alaska. However, the program might not meet the educational requirements for professional licensure or certification in other states.
Please see UAA's Licensure and Certification website (https://www.uaa.alaska.edu/academics/office-of-academic-affairs/licensure.cshtml/) for more information.

Admission Requirements

- Complete the Admission Requirements for Graduate Certificates (p. 43).

School of Nursing Admission Deadlines

Information on admission deadlines can be found on the SON website. (http://www.uaa.alaska.edu/schoolofnursing/) The Family Nurse Practitioner (FNP) program admits once a year and has a specific deadline for the application.

School of Nursing Admission Requirements

To be eligible for the FNP Graduate Certificate applicants must submit documentation of the following:

- Graduate degree in nursing (master's or doctoral) from a school of nursing accredited by the Commission on Collegiate Nursing Education (CCNE) or the Accreditation Commission for Education in Nursing (ACEN).
- Registered professional nurse license in the state of Alaska. License must remain active and unencumbered while in the School of Nursing (SON) graduate program. There are different reasons for a license to be encumbered and some may not preclude admission to the program. Students with encumbered licenses should meet with the graduate chair to determine program eligibility.
- Active unencumbered license as an advanced practice nurse in the state of Alaska. License must remain active and unencumbered while in the graduate certificate program.

- Documentation of national certification as an advanced nurse practitioner.
- Meet with faculty advisor to develop an academic plan of study based on a gap analysis (see SON website (http://www.uaa.alaska.edu/schoolofnursing/) for advisor contact information).

School of Nursing Admission Process

The UAA School of Nursing application process can be found on the SON website (http://www.uaa.alaska.edu/schoolofnursing/).

Additional School of Nursing Requirements

Prior to the commencement of the nursing program, students must provide documentation for the following:

- **Immunizations:** Proof of rubella, rubeola, and mumps vaccination or titer; varicella (chickenpox) vaccination or titer; Hepatitis B titer demonstrating immunity; Hepatitis A titer demonstrating immunity; diphtheria/tetanus vaccine within the past ten years; influenza vaccine within the previous twelve months.
- **Freedom from active tuberculosis:** Verified annually by a negative PPD skin test or by a health examination conducted by a nurse practitioner, physician, or physician's assistant.
- **Current certification in cardiopulmonary resuscitation (CPR):** Required for infants, children, and adults.
- **Additional requirements:** May include, but are not limited to, drug screening, additional vaccinations, and/or clinical facility-specific requirements.
- **Eligibility determination from a national-level criminal background check.**
- **Professional liability insurance:** Specific information regarding acceptable policies can be obtained directly from the program.
- **Proof of health insurance:** The school assumes no responsibility for illnesses and injuries experienced by students during their clinical experiences. Students who are injured while completing clinical assignments are responsible for all associated medical costs.
- **Proof of registered professional nurse license in the state of Alaska:** License must remain active and unencumbered while in the School of Nursing (SON) graduate program. Students with encumbered licenses should meet with the graduate program chair to determine program eligibility.

Furthermore, students enrolled in clinical courses must arrange their own transportation to clinical assignments and will need to purchase uniforms and specialized equipment.

FNP Clinical Requirements

Alaska clinical site decisions are based on the availability of qualified preceptors and agencies that provide adequate experiences so the student can meet the course and program outcomes. Whenever possible we assign sites in or near a student's home community. Student clinical hours must follow the preceptors' work schedules (usually M-F).
All students are encouraged to take advantage of clinical learning opportunities throughout Alaska in both urban and rural settings. The certificate requires 750 clinical hours of direct patient care.

Academic Requirements

Students enrolled in the FNP Graduate Certificate program must make continuous progress toward completion of the certificate and remain in good standing with the SON. A detailed schematic of the SON good standing policy can be found in the SON Graduate Handbook (http://www.uaa.alaska.edu/schoolofnursing/studenthandbooks.cfm). Noncompliance with the good standing policy and academic progress expectations will result in probation and possible dismissal from the program. In order to remain in good standing students must:

- Maintain professional and academic standards at all times.
- Maintain continuous registration each fall and spring semester until certificate is granted.
- Earn a minimum grade of 3.00 (B) in all required coursework.

Graduation Requirements

- Complete the General University Requirements for Graduate Certificates. (p. 364)
- Complete the program requirements below.

The program requirements are based on what type of nurse practitioner certification the individual already has; additional coursework may be required based on the transcript gap analysis that is done by the academic advisor.

Code	Title	Credits
Requirements for Practicing Adult Nurse Practitioners		
NSG A660	Family Nurse Practitioner I	5
NSG A661	Family Nurse Practitioner II	4
NSG A663	Family Nurse Practitioner IV	7
Total		**16**

Code	Title	Credits
Requirements for Practicing Pediatric Nurse Practitioners		
NSG A661	Family Nurse Practitioner II	4
NSG A662	Family Nurse Practitioner III	5
NSG A663	Family Nurse Practitioner IV	7
Total		**16**

Code	Title	Credits
Requirements for Practicing Psychiatric Mental Health Nurse Practitioners		
NSG A601	Advanced Pathophysiology	3
NSG A602	Advanced Health Assessment in Primary Care	4
NSG A660	Family Nurse Practitioner I	5
NSG A610	Pharmacology for Primary Care	3
NSG A611	Psychopharmacology for Advanced Nursing	3

NSG A661	Family Nurse Practitioner II	4
NSG A662	Family Nurse Practitioner III	5
NSG A663	Family Nurse Practitioner IV	7
Total		**34**

Code	Title	Credits
Women's Health Nurse Practitioner		
NSG A660	Family Nurse Practitioner I	5
NSG A662	Family Nurse Practitioner III	5
NSG A663	Family Nurse Practitioner IV	7
Total		**17**

A total of 16-34 credits is required for the certificate.[1]

[1] *Students need to have had an advanced pharmacology, pathophysiology and health assessment course in their original nursing master's program; if their program did not include some or all of these courses, they may need to be taken for the graduate certificate.*

Program Student Learning Outcomes

Students graduating with a Graduate Certificate in Family Nurse Practitioner will be able to:

- Apply nursing theory, best practices and scholarly evidence to the advanced nursing practice role for which the student is being prepared.
- Apply ethical, legal and professional standards and policy to advanced nursing practice with an emphasis on the role for which the student is being prepared.
- Collaborate across disciplines and in partnership with key stakeholders to improve health for diverse populations.
- Create a plan for self-directed, lifelong learning and professional development.
- Demonstrate professional competence in the advanced nursing practice role for which one is being prepared.
- Use emerging information, health technologies and healthcare data to promote safety and quality care to improve health.

Graduate Certificate in Nursing Education

The Graduate Certificate in Nursing Education (NLDR-EDU) is available for nurses who already have a graduate degree in nursing and are seeking to develop advanced knowledge and skills in order to teach in academic or clinical settings. The coursework emphasizes instruction in teaching, program and course development, implementation, and evaluation.

Graduates of the NLDR-EDU certificate option may be eligible to take the National League of Nursing (NLN) Certified Nurse Educator (CNE) Examination.

Scheduling of Courses

The NLDR-EDU course work is held in a hybrid format with some courses held at scheduled times, with students participating live via software programs or video conferencing.

Licensure and/or Certification

This program is designed to meet the educational requirements for professional licensure or certification in the State of Alaska. However, the program might not meet the educational requirements for professional licensure or certification in other states.
Please see UAA's Licensure and Certification website (https://www.uaa.alaska.edu/academics/office-of-academic-affairs/licensure.cshtml/) for more information.

Admission Requirements

- Complete the Admission Requirements for Graduate Certificates (p. 43).

School of Nursing Admission Deadlines

Information on admission deadlines can be found on the SON website. (https://www.uaa.alaska.edu/academics/college-of-health/departments/school-of-nursing/index.cshtml/) Applications for the Graduate Certificate in Nursing Education (EDUC) are reviewed once a semester as they are completed.

School of Nursing Admission Requirements

To be eligible for the Graduate Certificate in Nursing Education applicants must submit documentation of the following requirements:

- Graduate degree in nursing (master's or doctoral) from a school of nursing accredited by the Commission on Collegiate Nursing Education (CCNE) or the Accreditation Commission for Education in Nursing (ACEN).
- Registered professional nurse license in the state of Alaska. License must remain active and unencumbered while in the School of Nursing (SON) graduate program. There are different reasons for a license to be encumbered and some may not preclude admission to the program. Students with encumbered licenses should meet with the graduate chair to determine program eligibility.
- Meet with faculty advisor to develop a plan of study (see SON website (https://www.uaa.alaska.edu/academics/college-of-health/departments/school-of-nursing/index.cshtml/) for advisor contact information).

School of Nursing Admission Process

The UAA School of Nursing application process can be found on the SON website (https://www.uaa.alaska.edu/academics/college-of-health/departments/school-of-nursing/index.cshtml/).

Additional School of Nursing Requirements

Prior to the commencement of the nursing program, students must provide documentation for the following:

- **Immunizations:** Proof of rubella, rubeola, and mumps vaccination or titer; varicella (chickenpox) vaccination or titer; Hepatitis B titer

demonstrating immunity; Hepatitis A titer demonstrating immunity; diphtheria/tetanus vaccine within the past ten years; influenza vaccine within the previous twelve months.

- **Freedom from active tuberculosis:** Verified annually by a negative PPD skin test or by a health examination conducted by a nurse practitioner, physician, or physician's assistant.
- **Current certification in cardiopulmonary resuscitation (CPR):** Required for infants, children, and adults.
- **Additional requirements:** May include, but are not limited to, drug screening, additional vaccinations, and/or clinical facility-specific requirements.
- **Eligibility determination from a national-level criminal background check.**
- **Professional liability insurance:** Specific information regarding acceptable policies can be obtained directly from the program.
- **Proof of health insurance:** The school assumes no responsibility for illnesses and injuries experienced by students during their clinical experiences. Students who are injured while completing clinical assignments are responsible for all associated medical costs.
- **Proof of registered professional nurse license in the state of Alaska:** License must remain active and unencumbered while in the School of Nursing (SON) graduate program. Students with encumbered licenses should meet with the graduate program chair to determine program eligibility.

Graduation Requirements

- Complete the General University Requirements for Graduate Certificates. (p. 364)
- Complete the program requirements below:

Code	Title	Credits
NSG A649	Best Practices in Teaching and Learning in Nursing Education	4
NSG A652	Technology and Informatics for Nurse Educators	3
NSG A654	Assessing Learning in Nursing Education	3
NSG A655	Curriculum Design and Program Assessment	3
Total		**13**

A total of 13 credits is required for the certificate.[1]

[1] *Students need to have had an advanced pharmacology, pathophysiology and health assessment course in their original nursing master's program; if their program did not include some or all of these courses, they may need to be taken for the graduate certificate.*

Program Student Learning Outcomes

Students graduating with a Graduate Certificate in Nursing Education will be able to:

- Apply nursing theory, best practices and scholarly evidence to the advanced nursing practice role for which the student is being prepared.
- Apply ethical, legal and professional standards and policy to advanced nursing practice with an emphasis on the role for which the student is being prepared.
- Collaborate across disciplines and in partnership with key stakeholders to improve health for diverse populations.
- Create a plan for self-directed, lifelong learning and professional development.
- Demonstrate professional competence in the advanced nursing practice role for which one is being prepared.
- Use emerging information, health technologies and healthcare data to promote safety and quality care to improve health.

Doctor of Nursing Practice in Nursing Science

The DNP places primary emphasis upon advanced professional nursing practice, theory, research, and leadership roles in advancing health care delivery systems and the application of research into practice. The Post-Master's DNP option is available for those who currently hold an advanced practice registered nurse (APRN) license and who wish to expand their knowledge and skills to interpret research, apply best practices, and incorporate clinical knowledge and leadership skills to influence healthcare policy.

The Commission on Collegiate Nursing Education (CCNE) 655 K Street, NW, Suite 750, Washington, DC 20001, (202) 887-6791 has accredited the Doctor of Nursing Practice (DNP) degree program through June 2032.

All University of Alaska Anchorage nursing programs are reviewed and approved by the Alaska Board of Nursing, 550 West Seventh Avenue, Suite 1500, Anchorage, Alaska 99501, (907) 269-8161.

Admission Requirements

- Complete the Admissions Requirements for Graduate Degrees (p. 43).

School of Nursing Admission Deadlines

The post-Master's Doctor of Nursing Practice (DNP) program has a rolling admission policy. Completed applications are reviewed each term. Applicants may take up to nine credits of core courses, on a space-available basis and with faculty permission, while waiting for their application to be processed.

School of Nursing Admission Requirements

To be eligible for the post-Master's DNP program the student must submit documentation of the following:

- Earned graduate degree in nursing from an institutionally accredited Advanced Practice Registered Nurse (APRN) program accredited by the Commission on Collegiate Nursing Education (CCNE) or the Accreditation Commission for Education in Nursing (ACEN).

APRNs include certified nurse practitioners, nurse midwives, registered nurse anesthetists, and clinical nurse specialists.

- Graduate GPA of at least 3.00 on a 4.00 scale. Applicants who attended a program that issues pass/fail grades will not be competitive unless there is formal documentation that a passing grade is equivalent to 3.00 or higher.
- Registered professional nurse license in the state of Alaska. The license must remain active and unencumbered while in the School of Nursing (SON) graduate program.
- Active APRN license. The license must remain active and unencumbered while in the SON graduate program.
- Engaged in practice as an APRN.
- Faculty approved plan of study based on a Gap Analysis. A gap analysis is a process of reviewing transcripts to determine if additional courses might be needed or if some courses can be waived. The gap analysis form can be found in the SON DNP Handbook (http://www.uaa.alaska.edu/schoolofnursing/) (see SON website (http://www.uaa.alaska.edu/schoolofnursing/) for advisor contact information).
- Graduate-level statistics course within the last 5 years. If an applicant does not meet this requirement, NSG A633 will be added to the plan of study.

School of Nursing Admission Process

The UAA School of Nursing application process is as follows:

1. Complete the UAA Graduate School online application (https://www.uaa.alaska.edu/admissions/). Monitor the application portal to make sure all requested transcripts are received and all references are uploaded. Only completed applications will be considered. As part of the application process you will be asked to:
    - Upload your resume (follow the provided Resume Instructions (https://www.uaa.alaska.edu/academics/college-of-health/departments/school-of-nursing/graduate-programs/resume.cshtml/))
    - Provide three names/emails of individuals willing to provide a professional reference
    - Upload a copy of your RN license
    - Upload a copy of your APRN license
    - Upload a copy of your APRN certificate
2. Once your application is completed, contact the SON graduate program assistant (uaa_nursegradadmit@alaska.edu) to schedule the faculty interview and advising appointment.

Additional School of Nursing Requirements

Prior to the commencement of the nursing program, students must provide documentation for the following:

- **Immunizations:** Proof of rubella, rubeola, and mumps vaccination or titer; varicella (chickenpox) vaccination or titer; Hepatitis B titer demonstrating immunity; Hepatitis A titer demonstrating immunity; diphtheria/tetanus vaccine within the past ten years; influenza vaccine within the previous twelve months.
- **Freedom from active tuberculosis:** Verified annually by a negative PPD skin test or by a health examination conducted by a nurse practitioner, physician, or physician's assistant.
- **Current certification in cardiopulmonary resuscitation (CPR):** Required for infants, children, and adults.
- **Additional requirements:** May include, but are not limited to, drug screening, additional vaccinations, and/or clinical facility-specific requirements.
- **Eligibility determination from a national-level criminal background check.**
- **Professional liability insurance:** Specific information regarding acceptable policies can be obtained directly from the program.
- **Proof of health insurance:** The school assumes no responsibility for illnesses and injuries experienced by students during their clinical experiences. Students who are injured while completing clinical assignments are responsible for all associated medical costs.
- **Proof of registered professional nurse license in the state of Alaska:** License must remain active and unencumbered while in the School of Nursing (SON) graduate program. Students with encumbered licenses should meet with the graduate program chair to determine program eligibility.

Furthermore, students enrolled in clinical courses must arrange their own transportation to clinical assignments and will need to purchase uniforms and specialized equipment.

Academic Requirements

Students enrolled in the DNP program must maintain continuous enrollment and remain in good standing within the SON. A detailed schematic of the SON good standing policy can be found in the SON DNP Handbook (http://www.uaa.alaska.edu/schoolofnursing/). Noncompliance with the good standing policy and academic expectations will result in probation and possible dismissal from the program. To remain in good standing students must:

- Maintain professional and academic standards at all times.
- Maintain continuous enrollment each term until the degree is earned.
- Earn a minimum 3.00 (B) in all required coursework.
- Complete NSG A696A, NSG A696B and NSG A696C no later than three sequential semesters after completion of all other required coursework.

Graduation Requirements

- Complete the General University Requirements for Graduate Degrees (p. 358).
- Complete the following program requirements.

Code	Title	Credits
Complete the following courses:		
NSG A615	Health Services Organization and Finance	4
NSG A613	Advanced Practice Informatics *	2

NSG A614	Advanced Practice Ethics and Law *	2
NSG A618A	Advanced Nursing Leadership *	2
NSG A619A	Health Economics *	2
NSG A628	Practice Inquiry II: Design and Methods	3
NSG A629	Practice Inquiry III: Proposal Development	2
NSG A634	Epidemiology for Advanced Practice *	2
NSG A684	Clinical Concentration **	4
NSG A696A	Practice Inquiry IV A: Capstone Project	2
NSG A696B	Practice Inquiry IV B: Capstone Project **	2
NSG A696C	Practice Inquiry IV C: Capstone Project	2
Advisor-approved elective		3
Total		**32**

* *Core courses*

***A student may petition to waive up to 7 credits based on an evaluation of their MS transcripts. A DNP requires 1,000 clinical hours; up to 700 hours may be waived based on documentation of supervised clinical hours earned in the master's degree program.*

Capstone: Project Dissemination

The DNP program culminates in the successful completion of a scholarly capstone project. The project must focus on an issue related to improving patient outcomes, and it must demonstrate the synthesis of the student's coursework and clinical practice application. Students who are unable to successfully defend their capstone while enrolled in NSG A696C may be required to take additional coursework. Specific requirements for additional coursework will be determined by the graduate program chairperson, the DNP coordinator, and the capstone project chair.

Program Student Learning Outcomes

Students graduating with a Doctor of Nursing Practice in Nursing Science will be able to:

- Demonstrate enhanced professional skills in advanced practice nursing using an ethical, evidence-based approach to promote healthy communities
- Apply clinical inquiry using a culturally sensitive, evidence-based approach to adapt practice and change health outcomes
- Act in expanded leadership roles to influence local, statewide and national health care policy and delivery systems serving unique, diverse and underserved populations

Master of Science in Nursing Science

In the Master of Science in Nursing Science program, there are three available options that include: family nurse practitioner (FNP), psychiatric mental health nurse practitioner (PMHNP), and nursing leadership with a concentration in nursing education (NLDR-EDU).

Graduate studies at the master's level place primary emphasis upon advanced professional nursing practice, theory, research and health care delivery systems. Master's level studies provide the student with a basis for further study at the doctoral level.

- Graduates of the FNP option are eligible to take the national certification examination for advanced professional practice as a family nurse practitioner offered by the American Nurses Credentialing Center (ANCC) or the American Academy of Nurse Practitioners (AANP).
- Graduates of the PMHNP option are eligible to take the national certification exam for advanced professional practice as a psychiatric mental health nurse practitioner (across the lifespan) offered by ANCC or AANP.
- Graduates of the NLDR-EDU option are eligible to take the National League of Nursing (NLN) Certified Nurse Educator (CNE) Examination.

This program is designed to meet the educational requirements for professional licensure or certification in the State of Alaska. However, the program might not meet the educational requirements for professional licensure or certification in other states. Please see UAA's Licensure and Certification website (https://www.uaa.alaska.edu/academics/office-of-academic-affairs/licensure.cshtml/) for more information.

Part-Time Study

The master's program is designed to be completed in six to ten semesters of part-time study. Enrollment in any specialty course requires formal admission to the specialty option. Students interested in full-time study should explore options with the program faculty advisor.

Scheduling of Courses

The FNP and PMHNP options are hybrid. Core courses and some specialty courses are completely online, with synchronous or asynchronous delivery. The FNP and PMHNP clinical courses and physical assessment are in a hybrid format with short face-to-face intensives required (usually 1-2 campus visits per semester). Additional course work is held throughout the semester at scheduled times, with students participating live via software programs or video conferencing. The NLDR-EDU option can be completed online, with class time being synchronous or asynchronous. The practicum courses are in a hybrid format with a short face-to-face intensive required on campus.

FNP, PMHNP and NLDR-EDU clinicals must be completed in the state of Alaska and in most instances clinical is done in the student's own community. Decisions for clinical sites are based on there being

adequate experiences and preceptors locally that allow the student to meet the course and program outcomes.

The associate, baccalaureate, master's, post-master's certificate nursing programs at University of Alaska Anchorage at the Alaska campuses located in Anchorage, Alaska are accredited by the: Accreditation Commission for Education in Nursing (ACEN).

Accreditation Commission for Education in Nursing (https://www.acenursing.org/)
3390 Peachtree Road NE, Suite 1400
Atlanta, Georgia 30326
Phone: (404) 975-5000

The most recent accreditation decision made by the ACEN Board of Commissioners for the associate, baccalaureate, master's, post-master's certificate nursing program is continuing accreditation.

View the public information disclosed by the ACEN regarding this program at https://www.acenursing.org/ search-programs (https://www.acenursing.org/search-programs/).

Admission Requirements

- Complete the Admission Requirements for Graduate Degrees (p. 43)**.**

School of Nursing Admission Deadlines

Information on admission deadlines can be found on the SON website. (http://www.uaa.alaska.edu/schoolofnursing/)

- The Psychiatric Mental Health Nurse Practitioner (PMHNP), Family Nurse Practitioner (FNP), and Nursing Leadership in Education (NLDR-EDU) options admit once a year and have a specific deadline for applications.

School of Nursing Admission Requirements

To be eligible for the master’s program applicants must submit documentation of the following:

- Bachelor or graduate degree in nursing from a program accredited by the Accreditation for Education in Nursing (ACEN) or the Commission on Collegiate Nursing Education (CCNE);
- Minimum undergraduate or graduate GPA of 3.00 (B) on a 4.00 scale. A student who does not have a minimum GPA of 3.00 may substitute their graduate UAA GPA (based on completion of three graduate core courses and earning a 3.00 or higher in each course);
- Minimum grade of 2.00 (C) in an undergraduate or graduate research methods course and a statistics course that covers descriptive and inferential statistics;
- Registered professional nurse license in the state of Alaska. License must remain active and unencumbered while in the School of Nursing (SON) graduate program. There are different reasons for a license to be encumbered and some may not preclude admission to the program. Students with encumbered licenses should meet with the graduate program chair to determine program eligibility;
- Minimum of one year of full-time clinical experience as a registered nurse;
- If enrolled in a previous graduate nursing program, a letter of good standing from the program director is required unless a degree was conferred;
- All clinical courses must be completed in the state of Alaska.

School of Nursing Admission Process

The UAA School of Nursing application process can be found on the SON website (http://www.uaa.alaska.edu/schoolofnursing/).

Additional School of Nursing Requirements

Prior to the commencement of the nursing program, students must provide documentation for the following:

- **Immunizations:** Proof of rubella, rubeola, and mumps vaccination or titer; varicella (chickenpox) vaccination or titer; Hepatitis B titer demonstrating immunity; Hepatitis A titer demonstrating immunity; diphtheria/tetanus vaccine within the past ten years; influenza vaccine within the previous twelve months.
- **Freedom from active tuberculosis:** Verified annually by a negative PPD skin test or by a health examination conducted by a nurse practitioner, physician, or physician's assistant.
- **Current certification in cardiopulmonary resuscitation (CPR):** Required for infants, children, and adults.
- **Additional requirements:** May include, but are not limited to, drug screening, additional vaccinations, and/or clinical facility-specific requirements.
- **Eligibility determination from a national-level criminal background check.**
- **Professional liability insurance:** Specific information regarding acceptable policies can be obtained directly from the program.
- **Proof of health insurance:** The school assumes no responsibility for illnesses and injuries experienced by students during their clinical experiences. Students who are injured while completing clinical assignments are responsible for all associated medical costs.
- **Proof of registered professional nurse license in the state of Alaska:** License must remain active and unencumbered while in the School of Nursing (SON) graduate program. Students with encumbered licenses should meet with the graduate program chair to determine program eligibility.

Furthermore, students enrolled in clinical courses must arrange their own transportation to clinical assignments and may need to purchase uniforms and specialized equipment.

FNP & PMHNP Clinical Requirements

Alaska clinical site decisions are based on the availability of qualified preceptors and agencies that provide adequate experiences so the student can meet the course and program outcomes. Whenever possible we assign sites in or near a student's home community. Student clinical hours must follow the preceptors' work schedules (usually M-F).
All students are encouraged to take advantage of clinical learning opportunities throughout Alaska in both urban and rural settings. Both nurse practitioner options require 750 hours of direct patient care.

NLDR-EDU Clinical Requirements

All clinical/practicum hours must be completed in Alaska with qualified preceptors/mentors and agencies. Faculty must pre-approve all agencies and preceptors/mentors.

Academic Requirements

Students enrolled in the master's degree program must make continuous progress toward completion of the degree and remain in good standing with the School of Nursing (SON). A detailed schematic of the SON good standing policy can be found in the SON Graduate Handbook (http://www.uaa.alaska.edu/schoolofnursing/studenthandbooks.cfm). Noncompliance with the good standing policy and academic expectations will result in probation and possible dismissal from the program. To remain in good standing students must:

- Maintain professional and academic standards at all times;
- Earn a minimum 3.00 (B) in all required coursework;
- Maintain continuous enrollment each term until degree is granted, following plan of study.

Graduation Requirements

- Complete the General University Requirements for Graduate Degrees (p. 358).
- Complete the program requirements below for one of the following options: FNP, PMHNP, or NLDR-EDU.

Family Nurse Practitioner and Psychiatric Mental Health Nurse Practitioner Options

Code	Title	Credits
Core Courses [1]		
NSG A613	Advanced Practice Informatics	2
NSG A618	Role Development in Advanced Nursing	2
NSG A618A	Advanced Nursing Leadership	2
NSG A619	Nursing Health Policy	2
NSG A621	Knowledge Development for Advanced Nursing Practice	2
NSG A627	Practice Inquiry I: The Nature of Evidence	3
NSG A633	Statistics for Advanced Practice	3
Total		**16**

[1] *Students seeking a second master's degree may petition to have core courses waived based on evaluation of prior graduate degree.*

Complete one of the following options:

Code	Title	Credits
Family Nurse Practitioner Option		
NSG A601	Advanced Pathophysiology	3
NSG A602	Advanced Health Assessment in Primary Care	4
NSG A610	Pharmacology for Primary Care	3
NSG A611	Psychopharmacology for Advanced Nursing	3
NSG A660	Family Nurse Practitioner I	5
NSG A661	Family Nurse Practitioner II	4
NSG A662	Family Nurse Practitioner III	5
NSG A663	Family Nurse Practitioner IV	7

Code	Title	Credits
Psychiatric Mental Health Nurse Practitioner Option		
NSG A601	Advanced Pathophysiology	3
NSG A602	Advanced Health Assessment in Primary Care	4
NSG A610	Pharmacology for Primary Care	3
NSG A611	Psychopharmacology for Advanced Nursing	3
NSG A670	Advanced Practice Psychiatric and Mental Health Nursing I	6
NSG A671	Advanced Practice Psychiatric and Mental Health Nursing II	5
NSG A672	Advanced Practice Psychiatric and Mental Health Nursing III	4
NSG A673	Advanced Practice Psychiatric and Mental Health Nursing IV	6
Total		**34**

A minimum of 50 credits is required for the degree.

Nursing Leadership in Education Option

All NLDR-EDU students complete the core and specialty courses in nursing education.

Code	Title	Credits
Core Courses [1]		
NSG A648	Nurse Leader and Educator Role	3
NSG A650	Evidence-Based Practice for Nursing Leaders	3
NSG A652	Technology and Informatics for Nurse Educators	3
NSG A653	Leadership Focus in Population Health	3
Total		**12**

[1] *Students seeking a second master's degree may petition to have core courses waived based on evaluation of prior graduate degree.*

Complete the following specialty courses:

Code	Title	Credits
Nursing Leadership in Education Option		
NSG A649	Best Practices in Teaching and Learning in Nursing Education	4
NSG A651	Advanced Pathophysiology, Pharmacology, and Health Assessment for Nurse Educators	4

NSG A654	Assessing Learning in Nursing Education	3
NSG A655	Curriculum Design and Program Assessment	3
NSG A656	Clinical Teaching, Simulation, and Evaluation	4
NSG A695A	Clinical Practicum in Population Health	2
NSG A695B	Teaching Practicum	4
Total		**24**

A minimum of 36 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with a Master of Science in Nursing Science will be able to:

- Apply nursing theory, best practices and scholarly evidence to the advanced nursing practice role for which the student is being prepared.
- Apply ethical, legal and professional standards and policy to advanced nursing practice with an emphasis on the role for which the student is being prepared.
- Collaborate across disciplines and in partnership with key stakeholders to improve health for diverse populations.
- Create a plan for self-directed, lifelong learning and professional development.
- Demonstrate professional competence in the advanced nursing practice role for which one is being prepared.
- Use emerging information, health technologies and healthcare data to promote safety and quality care to improve health.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

Sample Plan - Family Nurse Practitioner

First Year		
Spring		**Credits**
NSG A613	Advanced Practice Informatics	2
NSG A618	Role Development in Advanced Nursing	2
	Credits	**4**
Summer		
NSG A619	Nursing Health Policy	2
NSG A621	Knowledge Development for Advanced Nursing Practice	2
	Credits	**4**
Second Year		
Fall		
NSG A618A	Advanced Nursing Leadership	2
NSG A633	Statistics for Advanced Practice	3
	Credits	**5**
Spring		
NSG A601	Advanced Pathophysiology	3
NSG A610	Pharmacology for Primary Care	3
	Credits	**6**
Summer		
NSG A602	Advanced Health Assessment in Primary Care	4
	Credits	**4**
Third Year		
Fall		
NSG A627	Practice Inquiry I: The Nature of Evidence	3
NSG A661	Family Nurse Practitioner II	4
	Credits	**7**
Spring		
NSG A660	Family Nurse Practitioner I	5
	Credits	**5**

Summer		
Elective		3
	Credits	**3**
Fourth Year		
Fall		
NSG A662	Family Nurse Practitioner III	5
	Credits	**5**
Spring		
NSG A663	Family Nurse Practitioner IV	7
	Credits	**7**
	Total Credits	**50**

* *The program is part-time.*

Sample Plan - Psychiatric - Mental Health Nurse Practitioner

First Year		
Spring		**Credits**
NSG A613	Advanced Practice Informatics	2
NSG A618	Role Development in Advanced Nursing	2
	Credits	**4**
Summer		
NSG A619	Nursing Health Policy	2
NSG A621	Knowledge Development for Advanced Nursing Practice	2
	Credits	**4**
Second Year		
Fall		
NSG A618A	Advanced Nursing Leadership	2
NSG A633	Statistics for Advanced Practice	3
	Credits	**5**
Spring		
NSG A601	Advanced Pathophysiology	3
NSG A610	Pharmacology for Primary Care	3
	Credits	**6**
Summer		
NSG A602	Advanced Health Assessment in Primary Care	4
NSG A611	Psychopharmacology for Advanced Nursing	3
	Credits	**7**
Third Year		
Fall		
NSG A627	Practice Inquiry I: The Nature of Evidence	3
NSG A670	Advanced Practice Psychiatric and Mental Health Nursing I	6
	Credits	**9**
Spring		
NSG A671	Advanced Practice Psychiatric and Mental Health Nursing II	5
	Credits	**5**
Fourth Year		
Fall		
NSG A672	Advanced Practice Psychiatric and Mental Health Nursing III	4
	Credits	**4**
Spring		
NSG A673	Advanced Practice Psychiatric and Mental Health Nursing IV	6
	Credits	**6**
	Total Credits	**50**

* *The program is part-time.*

Sample Plan - Nursing Leadership in Education

First Year		
Fall		**Credits**
NSG A648	Nurse Leader and Educator Role	3
NSG A649	Best Practices in Teaching and Learning in Nursing Education	4
	Credits	**7**
Spring		
NSG A650	Evidence-Based Practice for Nursing Leaders	3
NSG A651	Advanced Pathophysiology, Pharmacology, and Health Assessment for Nurse Educators	4
	Credits	**7**
Summer		
NSG A652	Technology and Informatics for Nurse Educators	3
NSG A653	Leadership Focus in Population Health	3
	Credits	**6**
Second Year		
Fall		
NSG A654	Assessing Learning in Nursing Education	3
NSG A655	Curriculum Design and Program Assessment	3
	Credits	**6**
Spring		
NSG A695A	Clinical Practicum in Population Health	2
NSG A695B	Teaching Practicum	4
	Credits	**6**

Summer		
NSG A656	Clinical Teaching, Simulation, and Evaluation	4
	Credits	**4**
	Total Credits	**36**

* *This sample plan is based upon starting the program in the fall. The sample plan varies based upon the semester a student enters the program. The student is encouraged to speak with their academic advisor.*

Graduate Certificate in Psychiatric-Mental Health Nurse Practitioner

The Graduate Certificate in Psychiatric Mental Health Nurse Practitioner (PMHNP) is available to nurses who already have a graduate degree in nursing and are certified as advanced nurse practitioners in fields other than psychiatric-mental health. The program expands their scope of practice to assist them to acquire the theory, knowledge and skills needed to provide psychiatric-mental health services to families. The curriculum includes didactic, seminar and clinical hours.

Graduates of the PMHNP certificate option are eligible to take the examination offered by the American Nurses Credentialing Center (ANCC) or the American Academy of Nurse Practitioners (AANP) to become certified as a PMHNP.

The associate, baccalaureate, master's, post-master's certificate nursing programs at University of Alaska Anchorage at the Alaska campuses located in Anchorage, Alaska is accredited by the: Accreditation Commission for Education in Nursing (ACEN).

Accreditation Commission for Education in Nursing (https://www.acenursing.org/)
3390 Peachtree Road NE, Suite 1400
Atlanta, Georgia 30326
Phone: (404) 975-5000

The most recent accreditation decision made by the ACEN Board of Commissioners for the associate, baccalaureate, master's, post-master's certificate nursing program is continuing accreditation.

View the public information disclosed by the ACEN regarding this program at https://www.acenursing.org/ search-programs (https://www.acenursing.org/search-programs/).

Scheduling of Courses

The PMHNP clinical courses are in a hybrid format with some short face-to-face intensives required (usually 1-2 campus visits/semester). Additional course work is held throughout the semester at scheduled times, with distance students participating live via software programs or video conferencing. All PMHNP clinical must be completed in the state of Alaska and in most instances clinical is done in the students' own community. Decisions for clinical sites are based on there being adequate experiences and preceptors locally that allow the student to meet the course and program outcomes. The certificate requires 750 clinical hours of direct patient care.

Licensure and/or Certification

This program is designed to meet the educational requirements for professional licensure or certification in the State of Alaska. However, the program might not meet the educational requirements for professional licensure or certification in other states.
Please see UAA's Licensure and Certification website (https://www.uaa.alaska.edu/academics/office-of-academic-affairs/licensure.cshtml/) for more information.

Admission Requirements

- Complete Admission Requirements for Graduate Certificates (p. 43).

School of Nursing Admission Deadlines

Information on admission deadlines can be found on the School of Nursing (SON) website. (http://www.uaa.alaska.edu/schoolofnursing/) The Psychiatric Mental Health Nurse Practitioner program admits once a year and has a specific deadline for the application.

School of Nursing Admission Requirements

To be eligible for the PMHNP Graduate Certificate a candidate must have the following:

- Graduate degree in nursing (master's or doctoral) from a school of nursing accredited by the Commission on Collegiate Nursing Education (CCNE) or the Accreditation Commission for Education in Nursing (ACEN).
- Registered professional nurse license in the state of Alaska. License must remain active and unencumbered while in the SON graduate program. There are different reasons for a license to be encumbered and some may not preclude admission to the program. Students with encumbered licenses should meet with the graduate chair to determine program eligibility.
- Active unencumbered license as an advanced practice nurse in the state of Alaska. License must remain active and unencumbered while in the graduate certificate program.
- Documentation of national certification as an advanced nurse practitioner.
- Meet with faculty advisor to develop an academic plan of study based on a gap analysis (see SON website (http://www.uaa.alaska.edu/schoolofnursing/) for advisor contact information).

School of Nursing Admission Process

The UAA School of Nursing application process can be found on the SON website (http://www.uaa.alaska.edu/schoolofnursing/).

Additional School of Nursing Requirements

Prior to the commencement of the nursing program, students must provide documentation for the following:

- Immunizations: Proof of rubella, rubeola, and mumps vaccination or titer; varicella (chickenpox) vaccination or titer; Hepatitis B titer demonstrating immunity; Hepatitis A titer demonstrating immunity; diphtheria/tetanus vaccine within the past ten years; influenza vaccine within the previous twelve months.
- Freedom from active tuberculosis: Verified annually by a negative PPD skin test or by a health examination conducted by a nurse practitioner, physician, or physician's assistant.
- Current certification in cardiopulmonary resuscitation (CPR): Required for infants, children, and adults.
- Additional requirements: May include, but are not limited to, drug screening, additional vaccinations, and/or clinical facility-specific requirements.
- Eligibility determination from a national-level criminal background check.
- Professional liability insurance: Specific information regarding acceptable policies can be obtained directly from the program.
- Proof of health insurance: The school assumes no responsibility for illnesses and injuries experienced by students during their clinical experiences. Students who are injured while completing clinical assignments are responsible for all associated medical costs.
- Proof of registered professional nurse license in the state of Alaska: License must remain active and unencumbered while in the School of Nursing (SON) graduate program. Students with encumbered licenses should meet with the graduate program chair to determine program eligibility.

Furthermore, students enrolled in clinical courses must arrange their own transportation to clinical assignments and will need to purchase uniforms and specialized equipment.

PMHNP Clinical Requirements

Alaska clinical site decisions are based on the availability of qualified preceptors and agencies that provide adequate experiences so the student can meet the course and program outcomes. Whenever possible we assign sites in or near a student's home community. Student clinical hours must follow the preceptors' work schedules (usually M-F). All students are encouraged to take advantage of clinical learning opportunities throughout Alaska in both urban and rural settings.

Academic Requirements

Students enrolled in the PMHNP Graduate Certificate program must make continuous progress toward completion of the certificate and remain in good standing with the SON. A detailed schematic of the SON good standing policy can be found in the SON Graduate Handbook (http://www.uaa.alaska.edu/schoolofnursing/studenthandbooks.cfm). Noncompliance with the good standing policy and academic progress expectations will result in probation and possible dismissal from the program. To remain in good standing students must:

- Maintain professional and academic standards always.
- Earn a minimum 3.00 (B) in all required coursework.
- Maintain continuous enrollment each fall and spring semester until certificate is granted.

Graduation Requirements

- Complete the General University Requirements for Graduate Certificates. (p. 364)
- Complete the program requirements below:

The program requirements are based on what type of nurse practitioner certification the individual already has; additional coursework may be required based on the transcript gap analysis that is done by the academic advisor.

Code	Title	Credits
NSG A611	Psychopharmacology for Advanced Nursing	3
NSG A670	Advanced Practice Psychiatric and Mental Health Nursing I	6
NSG A671	Advanced Practice Psychiatric and Mental Health Nursing II	5
NSG A672	Advanced Practice Psychiatric and Mental Health Nursing III	4
NSG A673	Advanced Practice Psychiatric and Mental Health Nursing IV	6
Total		**24**

A total of 24 credits is required for the certificate.[1]

[1] *Students need to have had an advanced pharmacology, pathophysiology and health assessment course in their original nursing master's program; if their program did not include some or all of these courses, they may need to be taken for the graduate certificate.*

Program Student Learning Outcomes

Students graduating with a Graduate Certificate in Psychiatric Mental Health Nurse Practitioner will be able to:

- Apply nursing theory, best practices and scholarly evidence to the advanced nursing practice role for which the student is being prepared.
- Apply ethical, legal and professional standards and policy to advanced nursing practice with an emphasis on the role for which the student is being prepared.
- Collaborate across disciplines and in partnership with key stakeholders to improve health for diverse populations.
- Create a plan for self-directed, lifelong learning and professional development.
- Demonstrate professional competence in the advanced nursing practice role for which one is being prepared.
- Use emerging information, health technologies and healthcare data to promote safety and quality care to improve health.

Graduate Certificate in Public Health

The Graduate Certificate in Public Health prepares public health practitioners to apply skills in program planning and evaluation, data

analysis, and health services administration and management. The program focuses on preparing students to work in public health-related agencies that serve rural and underserved communities.

Admission Requirements

- Complete the Admission Requirements for Graduate Certificates (p. 43).
- In addition, applicants should:
  - Provide a current resume or curriculum vitae (CV)
  - Submit a personal statement explaining how and why obtaining a Graduate Certificate in Public Health would contribute to the applicant's career goals. The personal statement must be no more than 2 double-spaced pages long and typed using 11 or 12-point font.

The program only accepts applications for fall admission. March 1 is the early admission deadline for fall admissions. Applications will be accepted on a rolling basis after this date but not later than May 1.

Graduation Requirements

- Complete the General University Requirements for Graduate Certificates (p. 364).
- Complete the following program requirements:

Code	Title	Credits
HS A605	Public Health and Society	3
HS A615	Health Services Administration	3
HS A624	Circumpolar Health Issues	3
HS A625	Biostatistics for Health Professionals	3
or HS A626	Principles of Epidemiology	
HS/SWK A628	Program Evaluation	3
HS A695	Applied Practice Experience [1]	3
Total		**18**

[1] *HS A695 is a variable credit course. Students must complete a total of 3 credits to meet the graduate certificate requirements.*

A minimum of 18 credits is required for the certificate.

Program Student Learning Outcomes

With regards to the profession and science of public health, students graduating with a Graduate Certificate in Public Health will be able to:

- Explain public health history, philosophy, and values.
- Identify the core functions of public health and the 10 Essential Services.
- Explain the role of quantitative and qualitative methods and sciences in describing and assessing a population’s health.
- List major causes and trends of morbidity and mortality in the U.S. or other community relevant to the school or program, with attention to disparities among populations, e.g., socioeconomic, ethnic, gender, racial, etc.
- Discuss the science of primary, secondary, and tertiary prevention in population health, including health promotion, screening, etc.
- Explain the critical importance of evidence in advancing public health knowledge.

With regards to factors related to human health, students graduating with a Graduate Certificate in Public Health will be able to:

- Explain effects of environmental factors on a population's health.
- Explain biological and genetic factors that affect a population's health.
- Explain behavioral and psychological factors that affect a population's health.
- Explain the cultural, social, political and economic determinants of health and how the determinants relate to population health and health inequities.
- Explain how globalization affects global burdens of disease.
- Explain an ecological perspective on the connections among human health, animal health, and ecosystem health (e.g., One Health).

Master of Public Health in Public Health Practice

Public health seeks to understand and address the relationships between determinants of health and health outcomes. This graduate program prepares public health practitioners to assess the needs of populations; plan, implement and evaluate programs to address those needs; and otherwise assure conditions that protect and promote the health of populations. The Master of Public Health (MPH) in Public Health Practice, within the Division of Population Health Sciences (DPHS), is designed to meet the challenges of the diverse and complex field of public health, with a particular focus on the needs of Alaska and the Circumpolar North. Students with backgrounds in the natural sciences, social sciences, business, health professions, human services, education, and law have successfully entered the field of public health at the graduate level.

Students may pursue their careers with minimal disruption while working on the MPH because all required courses are offered via distance format.

The MPH is a 42 credit hour program that requires core courses in health education, environmental and occupational health, health management and policy, biostatistics, and epidemiology. The MPH also includes coursework in research methods, program evaluation, circumpolar health issues, and management of public health emergencies and disasters, as well as the opportunity to create an individualized emphasis as the foundation for the required Applied Practice Experience (APE) and Integrated Learning Experience (ILE).

Admission Requirements

- Complete the Admission Requirements for Graduate Degrees (p. 43).
- In addition, applicants should:
  - Submit an essay in response to the following prompt: *Identify a major public health challenge in your community, describe*

its extent, and discuss one to two evidence-based solutions to address this challenge. Essays must be no more than 2 double-spaced pages long, be typed using 11 or 12-point font, and include citations and references. The list of references does not count in the page limitations.
- Provide a current resume or curriculum vitae (CV).
- Submit a personal statement explaining how and why obtaining the MPH in Public Health Practice would contribute to the applicant's career goals. The personal statement must be no more than 2 double-spaced pages long and typed using 11 or 12-point font.

The deadline to submit an application is posted on the department website (https://www.uaa.alaska.edu/academics/college-of-health/departments/population-health-sciences/mph/admissions.cshtml/).

Applying to the MPH program is a two-step process. First, applicants must apply to the UAA general application site (https://university-of-alaska.my.site.com/formbuilderalaska/ERx_Forms__Portal_Login/). Second, applicants will submit their MPH application materials through SOPHAS (https://aspph.org/student-journey/sophas/), a centralized application service for public health schools and programs that are members of the Association of Schools and Programs of Public Health (ASPPH).

Please note that:

- Out-of-state applicants should be aware of the State Authorization Reciprocity Agreements (SARA), which could affect their eligibility to enroll in the UAA MPH Program.
- Decisions by the admissions committee are considered final. Applicants not admitted to the program may reapply during the next review period but are encouraged to strengthen their application before reapplying.

Accelerated MPH in Public Health Practice Option

UAA Bachelor of Science in Health Sciences (BSHS) students interested in pursuing an MPH are encouraged to discuss the Accelerated MPH in Public Health Practice option with a BSHS or MPH faculty academic advisor, and plan on applying for the Accelerated MPH in Public Health Practice option during their junior year. Applicants must meet the general admission requirements listed for graduate degrees, and the MPH. Additionally, the Accelerated MPH in Public Health Practice applicant must:

- Have completed at least 60% of the credits toward their bachelor's degree program requirements.
- Have a minimum cumulative grade point average (GPA) of 3.00.
- Have completed at least 24 course credits at UAA.

Students admitted to the Accelerated MPH in Public Health Practice option are required to take the following courses that can be applied to both their BSHS and MPH degrees:

- HS A605 instead of HS A433
- Complete 6 credits from the following MPH courses to be applied toward the BSHS required program approved electives: HS A610, HS A615, HS A624, or HS A630.

Academic Requirements

- See also General University Requirements for Graduate Degrees (p. 358) for requirements to remain in good standing and to meet academic expectations toward the degree.

Candidacy Requirements

- See the Advancement to Candidacy (p. 358) section.

Graduation Requirements

- Complete the General University Requirements for Graduate Degrees (p. 358).
- Complete the following program requirements:

Code	Title	Credits
Core Courses		
HS A605	Public Health and Society	3
HS A610	Environmental and Occupational Health	3
HS A615	Health Services Administration	3
HS A624	Circumpolar Health Issues	3
HS A625	Biostatistics for Health Professionals	3
HS A626	Principles of Epidemiology	3
HS/SWK A628	Program Evaluation	3
HS A629	Public Health Research Tools and Methods	4
HS A630	Public Health Emergencies and Disasters	3
Complete three focused public health-related emphasis courses at the 600-level with advisor approval		9
HS A695	Applied Practice Experience [1]	3
HS A696	Integrative Learning Experience	2
Total		**42**

[1] *HS A695 is a variable credit course. Students must complete a total of 3 credits to meet the degree requirements.*

A minimum of 42 credits is required for the degree.

Program Student Learning Outcomes

MPH Goals and Program-Level Objectives

Based on national accreditation criteria (Council on Education for Public Health, ceph.org (https://ceph.org/)) and quality standards, the overall MPH student goal is to prepare public health professionals who can demonstrate attainment of the following 12 foundational public health knowledge learning objectives, 22 MPH program core

competencies, and 5 public health practice generalist track-specific competencies.

MPH Foundational Knowledge Learning Objectives

Profession and Science of Public Health

- Explain public health history, philosophy, and values.
- Identify the core functions of public health and the 10 Essential Services.
- Explain the role of quantitative and qualitative methods and sciences in describing and assessing a population's health.
- List major causes and trends of morbidity and mortality in the U.S. or other community relevant to the school or program, with attention to disparities among populations, e.g., socioeconomic, ethnic, gender, racial, etc.
- Discuss the science of primary, secondary, and tertiary prevention in population health, including health promotion, screening, etc.
- Explain the critical importance of evidence in advancing public health knowledge.

Factors Related to Human Health

- Explain effects of environmental factors on a population's health.
- Explain biological and genetic factors that affect a population's health.
- Explain behavioral and psychological factors that affect a population's health.
- Explain the cultural, social, political, and economic determinants of health and how the determinants relate to population health and health inequities.
- Explain how globalization affects global burdens of disease.
- Explain an ecological perspective on the connections among human health, animal health, and ecosystem health (e.g., One Health).

MPH Competencies

Evidence-based Approaches to Public Health

- Apply epidemiological methods to settings and situations in public health practice.
- Select quantitative and qualitative data collection methods appropriate for a given public health context.
- Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming, and software, as appropriate.
- Interpret results of data analysis for public health research, policy, or practice.

Public Health & Health Care Systems

- Compare the organization, structure, and function of health care, public health, and regulatory systems across national and international settings.
- Discuss the means by which structural bias, social inequities, and racism undermine health and create challenges to achieving health equity at organizational, community and systemic levels.

Planning & Management to Promote Health

- Assess population needs, assets, and capacities that affect communities' health.
- Apply awareness of cultural values and practices to the design, implementation, or critique of public health policies or programs.
- Design a population-based policy, program, project, or intervention.
- Explain basic principles and tools of budget and resource management.
- Select methods to evaluate public health programs.

Policy in Public Health

- Discuss the policy-making process, including the roles of ethics and evidence.
- Propose strategies to identify relevant communities and individuals and build coalitions and partnerships for influencing public health outcomes.
- Advocate for political, social, or economic policies and programs that will improve health in diverse populations.
- Evaluate policies for their impact on public health and health equity.

Leadership

- Apply leadership and/or management principles to address a relevant issue.
- Apply negotiation and mediation skills to address organizational or community challenges.

Communication

- Select communication strategies for different audiences and sectors.
- Communicate audience-appropriate public health content, both in writing and through oral presentation to a non-academic, non-peer audience with attention to factors such as literacy and health literacy.
- Describe the importance of cultural humility in communicating public health content.

Interprofessional Practice

- Integrate perspectives from other sectors and/or professions to promote and advance population health.

Systems Thinking

- Apply a systems thinking tool to visually represent a public health issue in a format other than standard narrative.

MPH in Public Health Practice Generalist Track-Specific Competencies

Public Health Response

- Address public health emergencies and/or disasters with a focus on preparedness, impact, response, and/or recovery.

Community Engagement

- Engage community partner(s) in identifying and/or addressing public health issues.

Professionalism and Ethics

- Demonstrate ethical decision-making in public health practice.

Diversity and Cultural Humility

- Apply concepts of social justice, equity, and/or cultural humility in addressing public health problems.

Circumpolar Health

- Analyze the unique social, cultural, and/or environmental conditions affecting population health in the Arctic.

Master of Social Work

The mission of the UAA Master of Social Work (MSW) is to develop a community of MSW professionals located across rural and urban Alaska who are dedicated to advancing human rights, engaging in anti-racist and anti-oppressive social work practice, while pursuing justice, equity, and inclusion for all. MSW students engage in a collaborative online learning environment and practicum to develop advanced generalist social work values, knowledge, and skills in direct practice, leadership, critical inquiry, and policy advocacy to address the health and social welfare needs in Alaska, the Circumpolar North, and beyond.

The MSW is accredited by the Council on Social Work Education (CSWE). The program is reviewed by CSWE for reaffirmation on a regular basis.

The MSW is structured to allow students to participate in part-time or full-time graduate studies plans requiring from one to four years of study. The MSW is an advanced generalist program, and the curriculum has two components: the generalist curriculum and the advanced generalist curriculum. MSW students complete social work practicum placements in the generalist curriculum and in the advanced generalist curriculum.

The generalist curriculum is completed in the first year of the full-time program and the first two years of the part-time program. Students with a Bachelor of Social Work (BSW) who are admitted with advanced standing are waived from the courses in the generalist curriculum, with the exception of SWK A624.

The advanced generalist curriculum is completed in the second year of the full-time program and the second two years of the part-time program. The advanced generalist curriculum is the curriculum completed by students with a BSW who are admitted with advanced standing. All students must successfully complete all courses in the advanced generalist curriculum.

The MSW does not grant social work course credit for life experience or previous work experience.

Licensure and/or Certification

Graduates completing the Master of Social Work are eligible to sit for the Licensed Master Social Worker (LMSW) examination within the state of Alaska immediately after graduation.

This program is designed to meet the educational requirements for professional licensure or certification in the State of Alaska. However, the program might not meet the educational requirements for professional licensure or certification in other states. Please see UAA's Licensure and Certification website (https://www.uaa.alaska.edu/academics/office-of-academic-affairs/licensure.cshtml/) for more information.

Admission Requirements

- Complete the Admission Requirements for Graduate Degrees (p. 43).
- The application deadline is January 15. Applications are accepted and reviewed once a year.
- Applications must be submitted online. Paper applications will not be accepted.
- The MSW reserves the right to request additional materials and/or interviews pertaining to program admission. Admission to the MSW is based on the professional judgment of the MSW admissions committee. Only applicants eligible to be licensed as a social worker in the state of Alaska will be admitted to the MSW. Please contact the School of Social Work for further information.

Additional Criteria for Admission to the Full MSW:

- Two prerequisite courses (completed with a minimum grade of C or a Pass for Pass/Fail). Prerequisites may be in progress at the time of application, but they must be completed by the program's start date. Prerequisite courses can be completed through a 3-credit academic course from an institutionally accredited college or university or through an approved continuing education certificate course. Prerequisite courses may also be met through the successful completion of national exams recognized by UAA, such as Advanced Placement (AP), College-Level Examination Program (CLEP), DSST, UExcel, or International Baccalaureate (IB), for which the student meets the minimum score set by the UAA faculty and published in the catalog. There is no time limit on prerequisite credit.
  - Human biology - This should be a human biology course or a biology course with human biology content (basic anatomy and human biological systems). UAA courses that satisfy this requirement include: BIOL A100, BIOL A102, BIOL A111 and BIOL A111L, or BIOL A112 and BIOL A112L.
  - Statistics - This should be an introductory or elementary statistics course. Most courses with "statistics" in the title will be approved. UAA courses that satisfy this requirement include: ECON A227, PSY A260, SOC A462, STAT A200, or STAT A253.

Additional Criteria for Admission to the MSW with Advanced Standing:

Applicants who do not meet the criteria for advanced standing may apply to the full MSW.

- Bachelor of Social Work from a baccalaureate social work program accredited by the Council on Social Work Education, recognized through its International Social Work Degree Recognition and Evaluation Services, or covered under a memorandum of understanding with international social work accreditors. If the BSW degree was completed more than five years ago, then the

applicant must demonstrate employment in health and social services.

- Minimum grade of B or equivalent in each practicum placement course.
- Two prerequisite courses - one in human biology and one in statistics (completed with a minimum grade of C or a Pass for Pass/Fail). Prerequisites may be in progress at the time of application, but they must be completed by the program's start date. Prerequisite courses can be completed through a 3-credit academic course from an institutionally accredited college or university or through an approved continuing education certificate course. Prerequisite courses may also be met through the successful completion of national exams recognized by UAA, such as Advanced Placement (AP), College-Level Examination Program (CLEP), DSST, UExcel, or International Baccalaureate (IB), for which the student meets the minimum score set by the UAA faculty and published in the catalog. There is no time limit on prerequisite credit.
  - Human biology - This should be a human biology course or a biology course with human biology content (basic anatomy and human biological systems). UAA courses that satisfy this requirement include: BIOL A100, BIOL A102, BIOL A111 and BIOL A111L, or BIOL A112 and BIOL A112L.
  - Statistics - This should be an introductory or elementary statistics course. Most courses with "statistics" in the title will be approved. UAA courses that satisfy this requirement include: ECON A227, PSY A260, SOC A462, STAT A200, or STAT A253.

Academic Requirements

To maintain satisfactory progress toward the degree, a student in the MSW is expected to achieve a minimum GPA of 3.00 on a 4.00 scale with no individual course grade lower than a C, and to adhere to the Code of Ethics of the National Association of Social Workers. Students must earn a minimum grade of B in the field practicum courses that they complete, which may include: SWK A639, SWK A695A, SWK A695B, SWK A695C, SWK A695D.

Candidacy for a Master of Social Work

- Refer to Advancement to Candidacy (p. 358) criteria.
- Successfully complete MSW comprehensive examination, which is completed in SWK A635.

Graduation Requirements

- Complete the General University Requirements for Graduate Degrees (p. 358).
- Complete the following major requirements:

Generalist Curriculum: Complete or waive the following required courses[1]:

Code	Title	Credits
SWK A607	Social Welfare Policy and Services	3
SWK A624	Foundation Research Methods	3
SWK A630	Practice with Individuals	3
SWK A631	Introduction to Social Work Practice	3
SWK A632	Practice with Families and Groups	3
SWK A636	Practice with Organizations and Communities	3
SWK A642	Human Behavior in the Social Environment	3
SWK A643	Engaging Diversity through Justice and Anti-Oppressive Social Work Practice	3
SWK A695A	Generalist Practicum I	3
SWK A695B	Generalist Practicum II	3
Total		**30**

[1] *Advanced standing students are waived from taking all Generalist Curriculum courses.*

Advanced Generalist Curriculum: All MSW students are required to complete the courses in the advanced generalist curriculum.

Code	Title	Credits
SWK A608	Advanced Policy Practice	3
SWK/HS A628	Program Evaluation	3
SWK A629	Advanced Practice with Individuals	3
SWK A633	Advanced Practice with Families and Groups	3
SWK A635A	Transformational Leadership Capstone Development	2
SWK A635B	Transformational Leadership Capstone Implementation	2
SWK A637	Transformational Leadership with Communities and Organizations	3
SWK A695C	Advanced Generalist Practicum I	3
SWK A695D	Advanced Generalist Practicum II	3
Two 600-level social work-related electives with advisor approval		6
Total		**31**

A minimum of 31 credits and a maximum of 61 credits is required for the degree.

Program Student Learning Outcomes

The Master of Social Work program prepares advanced generalist social workers who:

- Demonstrate ethical and professional behavior in advanced generalist practice.
- Advance human rights and social, racial, economic, and environmental justice in advanced generalist practice.
- Engage anti-racism, diversity, equity, and inclusion (ADEI) in practice in advanced generalist practice.

- Engage in practice-informed research and research-informed practice in advanced generalist practice.
- Engage in policy practice in advanced generalist practice.
- Engage with individuals, families, groups, organizations, and communities in advanced generalist practice.
- Assess individuals, families, groups, organizations, and communities in advanced generalist practice.
- Intervene with individuals, families, groups, organizations, and communities in advanced generalist practice.
- Evaluate practice with individuals, families, groups, organizations, and communities in advanced generalist practice.
- Integrate the context of Alaska in advanced generalist practice.

Dual Degree, Master of Social Work/ Master of Public Health

The Master of Social Work/Master of Public Health (MSW/MPH) dual degree provides academic training in order to maximize the impact of both public health and social work practices. This dual degree develops expertise at the nexus of public health and social work. The goal of this program is to train leaders who have the skills and competencies to address many of the social and public health problems facing the state of Alaska, this nation and the world.

An advantage of the dual MSW/MPH option is that by mutual agreement between the two programs, some courses count toward graduation requirements in both programs. Thus, the time to complete both degrees and the total number of credits required has been reduced. The time to complete both degrees for a full-time student is approximately three years (nine semesters). If both degrees were pursued sequentially, the minimum time to the degrees is four years (12 semesters).

Admission Requirements

- Complete the Admission Requirements for Graduate Degrees (p. 43).
- Students must apply separately and meet the admission requirements of both the MSW (p. 424) and MPH (p. 421) programs. See those programs for specific requirements.

Advising

Each student will have two academic advisors, one for each degree program. Students will have two graduate studies plans (GSPs), one for each degree program. The GSPs will vary based on full or part-time status and the semester of entry into the MSW or MPH program.

Academic Requirements

To maintain satisfactory academic progress toward the dual degrees, a student is expected to be in good standing in both academic programs. See Graduate Degree Policies (p. 360) for additional requirements.

Graduation Requirements

- Complete the General University Requirements for Graduate Degrees (p. 358).
- Complete the following program requirements:

Code	Title	Credits
Complete the following MPH core courses:		
HS A605	Public Health and Society	3
HS A610	Environmental and Occupational Health	3
HS A615	Health Services Administration	3
HS A624	Circumpolar Health Issues	3
HS A625	Biostatistics for Health Professionals	3
HS A626	Principles of Epidemiology	3
HS A630	Public Health Emergencies and Disasters	3
HS A695	Applied Practice Experience [3]	3
HS A696	Integrative Learning Experience	2
Total		**26**

Code	Title	Credits
Complete the following MSW core courses:		
SWK A607	Social Welfare Policy and Services [1]	3
SWK A608	Advanced Policy Practice	3
SWK A629	Advanced Practice with Individuals	3
SWK A630	Practice with Individuals [1]	3
SWK A631	Introduction to Social Work Practice [1]	3
SWK A632	Practice with Families and Groups [1]	3
SWK A633	Advanced Practice with Families and Groups	3
SWK A635A	Transformational Leadership Capstone Development	2
SWK A635B	Transformational Leadership Capstone Implementation	2
SWK A636	Practice with Organizations and Communities [1]	3
SWK A637	Transformational Leadership with Communities and Organizations	3
SWK A642	Human Behavior in the Social Environment [1]	3
SWK A643	Engaging Diversity through Justice and Anti-Oppressive Social Work Practice [1]	3
SWK A695A	Generalist Practicum I [1]	3
SWK A695B	Generalist Practicum II [1]	3
SWK A695C	Advanced Generalist Practicum I	3

SWK A695D	Advanced Generalist Practicum II	3
Total		**49**

Code	Title	Credits
Complete the following MSW/MPH shared courses:		
HS/SWK A628	Program Evaluation	3
HS A629	Public Health Research Tools and Methods	3-4
or SWK A624	Foundation Research Methods	
Advisor approved elective(s) [2]		3-6
Total		**9-13**

[1] *Dual degree students with a Bachelor of Science who are admitted to the MSW program with advanced standing are not required to complete SWK A607, SWK A630, SWK A631, SWK A632, SWK A636, SWK A642, SWK A643, SWK A695A, and SWK A695B.*

[2] *Dual degree students in the full MSW program will complete 3 credits of advisor approved electives with public health content. Dual degree students in the advanced standing MSW program will take 6 credits of advisor approved electives with public health content.*

[3] *HS A695 is a variable credit course. Students must complete a total of 3 credits to meet the degree requirements.*

A minimum of 60 credits (specifically for students admitted to the MSW program with advanced standing) and a maximum of 84 credits are required for the MSW/MPH dual degree. The MPH degree requires a minimum of 42 credits of public health-relevant coursework.

Program Student Learning Outcomes

Master of Social Work

The Master of Social Work prepares advanced generalist social workers who:

- Demonstrate ethical and professional behavior in advanced generalist practice.
- Advance human rights and social, racial, economic, and environmental justice in advanced generalist practice.
- Engage anti-racism, diversity, equity, and inclusion (ADEI) in practice in advanced generalist practice.
- Engage in practice-informed research and research-informed practice in advanced generalist practice.
- Engage in policy practice in advanced generalist practice.
- Engage with individuals, families, groups, organizations, and communities in advanced generalist practice.
- Assess individuals, families, groups, organizations, and communities in advanced generalist practice.
- Intervene with individuals, families, groups, organizations, and communities in advanced generalist practice.
- Evaluate practice with individuals, families, groups, organizations, and communities in advanced generalist practice.
- Integrate the context of Alaska in advanced generalist practice.

Master of Public Health

Based on national accreditation criteria (Council on Education for Public Health, ceph.org (https://ceph.org/)) and quality standards, the overall MPH student goal is to prepare public health professionals who can demonstrate attainment of the following 12 foundational public health knowledge learning objectives, 22 MPH core competencies, and 5 public health practice generalist track-specific competencies.

MPH Foundational Knowledge Learning Objectives

Profession and Science of Public Health

- Explain public health history, philosophy, and values.
- Identify the core functions of public health and the 10 Essential Services.
- Explain the role of quantitative and qualitative methods and sciences in describing and assessing a population’s health.
- List major causes and trends of morbidity and mortality in the U.S. or other community relevant to the school or program, with attention to disparities among populations, e.g., socioeconomic, ethnic, gender, racial, etc.
- Discuss the science of primary, secondary, and tertiary prevention in population health, including health promotion, screening, etc.
- Explain the critical importance of evidence in advancing public health knowledge.

Factors Related to Human Health

- Explain effects of environmental factors on a population's health.
- Explain biological and genetic factors that affect a population’s health.
- Explain behavioral and psychological factors that affect a population’s health.
- Explain the cultural, social, political, and economic determinants of health and how the determinants relate to population health and health inequities.
- Explain how globalization affects global burdens of disease.
- Explain an ecological perspective on the connections among human health, animal health, and ecosystem health (e.g., One Health).

MPH Competencies

Evidence-based Approaches to Public Health

- Apply epidemiological methods to settings and situations in public health practice.
- Select quantitative and qualitative data collection methods appropriate for a given public health context.
- Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming, and software, as appropriate.
- Interpret results of data analysis for public health research, policy, or practice.

Public Health & Health Care Systems

- Compare the organization, structure, and function of health care, public health, and regulatory systems across national and international settings.
- Discuss the means by which structural bias, social inequities, and racism undermine health and create challenges to achieving health equity at organizational, community and systemic levels.

Planning & Management to Promote Health

- Assess population needs, assets, and capacities that affect communities' health.
- Apply awareness of cultural values and practices to the design, implementation, or critique of public health policies or programs.
- Design a population-based policy, program, project, or intervention.
- Explain basic principles and tools of budget and resource management.
- Select methods to evaluate public health programs.

Policy in Public Health

- Discuss the policy-making process, including the roles of ethics and evidence.
- Propose strategies to identify relevant communities and individuals and build coalitions and partnerships for influencing public health outcomes.
- Advocate for political, social, or economic policies and programs that will improve health in diverse populations.
- Evaluate policies for their impact on public health and health equity.

Leadership

- Apply leadership and/or management principles to address a relevant issue.
- Apply negotiation and mediation skills to address organizational or community challenges.

Communication

- Select communication strategies for different audiences and sectors.
- Communicate audience-appropriate public health content, both in writing and through oral presentation to a non-academic, non-peer audience with attention to factors such as literacy and health literacy.
- Describe the importance of cultural humility in communicating public health content.

Interprofessional Practice

- Integrate perspectives from other sectors and/or professions to promote and advance population health.

Systems Thinking

- Apply a systems thinking tool to visually represent a public health issue in a format other than standard narrative.

MPH in Public Health Practice Generalist Track-Specific Competencies

Public Health Response

- Address public health emergencies and/or disasters with a focus on preparedness, impact, response, and/or recovery.

Community Engagement

- Engage community partner(s) in identifying and/or addressing public health issues.

Professionalism and Ethics

- Demonstrate ethical decision-making in public health practice.

Diversity and Cultural Humility

- Apply concepts of social justice, equity, and/or cultural humility in addressing public health problems.

Circumpolar Health

- Analyze the unique social, cultural, and/or environmental conditions affecting population health in the Arctic.

Collaborative Graduate Programs

The UAA offers students the opportunity to earn a graduate degree through collaborative programs with other institutions. A portion of the coursework, internships, practicum, and fieldwork may be taken through UAA while other program requirements are fulfilled through the collaborative institution. The degree is granted by the collaborative institution.

Master of Clinical Health Services (MCHS) (p. 429)

- Physician's Assistant collaborative program with University of Washington

Medical Doctor (MD)

- WWAMI School of Medical Education, collaborative program with University of Washington

Doctor of Occupational Therapy (OTD) (p. 429)

- Collaborative program with Creighton University

Doctor of Pharmacy (PharmD) (p. 430)

- Collaborative program with Idaho State University

Program Key

Code	Description
MCHS	Master of Clinical Health Services
MD	Doctor of Medicine
OTD	Doctor of Occupational Therapy
PharmD	Doctor of Pharmacy

Master of Clinical Health Services

University of Washington/UAA Physician Assistant Program *(http://depts.washington.edu/medex/pa-program/)*
UAA Health Sciences Building (HSB), (907) 784-5481

The UAA and the University of Washington (UW) offer the MEDEX Northwest Physician Assistant program preparing Physician Assistants to practice primary care in medically underserved and rural areas. UAA students complete the didactic (classroom) phase of the program in Anchorage and the clinical phase at various training sites across the greater Washington, Wyoming, Alaska, Montana, and Idaho (WWAMI) region.

Graduates of the Physician Assistant program receive a Master of Clinical Health Services from the University of Washington and are eligible to sit for the Physician Assistant National Certification Exam to apply for licensure.

UW MEDEX offers a competency-based program that accepts applicants with previous healthcare experience, such as nurses (at any level), EMTs, Alaska community health aides, medical assistants, athletic trainers, former military corpsmen, etc. For additional program details, visit the UW MEDEX program webpage. (http://depts.washington.edu/medex/pa-program/)

Eligibility

To be eligible for the program, applicants must have a bachelor's degree and meet the required prerequisites set by the University of Washington. For additional information on program prerequisites, visit the UW MEDEX prerequisites webpage. (http://depts.washington.edu/medex/applicants/program-prerequisites/.html)

Admissions

Application to the program requires a Central Application Service for Physician Assistants (CASPA) as well as a UW MEDEX supplemental application to be submitted to the University of Washington. For additional information on gaining admission into the UW MEDEX Northwest PA program, visit the UW MEDEX admissions webpage. (https://depts.washington.edu/medex/applicants/)

Accreditation

Students should address questions regarding accreditation to the University of Washington.

Medical Doctor

WWAMI School of Medical Education *(http://www.uaa.alaska.edu/wwami/)*
Health Sciences Building (HSB), Room 301, (907) 786-4789

The WWAMI School of Medical Education is a partnership between the University of Alaska Anchorage and the University of Washington School of Medicine resulting in the degree of Medical Doctor (MD).

Each year, Alaskan residents who meet Eligibility criteria (https://www.uaa.alaska.edu/academics/college-of-health/departments/wwami/ak-wwami-eligibility.cshtml/) begin their medical education in a collaborative medical school that operates among the campuses of five northwestern states -- Washington, Wyoming, Alaska, Montana, and Idaho (WWAMI). Alaska's WWAMI medical students take classes at UAA for the foundations phase which covers foundational basic sciences and an early introduction to clinical experience. The clinical phase consists of a Patient Care Phase with core clerkships and an Explore and Focus phase both of which can be completed at a variety of sites across any of the five states. An Alaska track allows nearly all of these to be completed in Alaska. A minimum of 12 weeks must be spent in Seattle. For more information visit WWAMI School of Medical Education (https://www.uaa.alaska.edu/academics/college-of-health/departments/wwami/) website.

Eligibility

This program is open to Alaska residents who meet the Alaska eligibility requirements (https://www.uaa.alaska.edu/academics/college-of-health/departments/wwami/ak-wwami-eligibility.cshtml/). Applicants must meet common requirements established by University of Washington School of Medicine (https://www.uwmedicine.org/school-of-medicine/admissions/) (UWSOM).

Pre Medical advising (https://www.uaa.alaska.edu/academics/college-of-health/departments/wwami/future-students/advising.cshtml/) is strongly recommended to ensure all prerequisites are met.

Admissions

Applications are accepted through the American Medical College Application Service (AMCAS). WWAMI applications are submitted to the UWSOM. All applications received by UWSOM from Alaska residents will be considered for the WWAMI program in Alaska. Complete application information, including details about the selection procedure, can be found on the UWMedicine website (https://www.uwmedicine.org/school-of-medicine/admissions/).

Doctor of Occupational Therapy

The Occupational Therapy Doctorate (OTD) is a hybrid format professional program offered collaboratively by Creighton University and UAA. During this three-and-a-half year full-time program, students take classes in both traditional and distance formats with labs and supplemental learning opportunities held on the UAA campus.

To be eligible for the program, applicants must have a minimum of 60 semester hours of coursework and meet the required prerequisites (https://www.creighton.edu/pharmacy-ot-pt/occupational-therapy/doctor-occupational-therapy/prerequisites/). After successful completion of the program, students are eligible to sit for the National Board for Certification in Occupational Therapy examination and to apply for licensure.

For information on prerequisites, curriculum and application procedures, please visit the program website (https://www.uaa.alaska.edu/academics/college-of-health/departments/preventive-and-therapeutic-sciences/occupational-therapy/) or the Creighton University OTD Program (https://spahp.creighton.edu/future-students/doctor-occupational-therapy/) website.

Students should address questions regarding accreditation to Creighton University.

Doctor of Pharmacy

Professional Studies Building (PSB), Suite 111
(907) 786-6553

Through a partnership between University of Alaska Anchorage (UAA) and the Idaho State University (ISU) College of Pharmacy (https://www.isu.edu/pharmacy/), students may earn their Doctor of Pharmacy (PharmD) in Alaska. During the first three years of the program, Alaska's Doctor of Pharmacy students follow the traditional model of scheduled classes on UAA campus, with state-of-the-art audiovisual technology used to deliver live instruction across three delivery sites: Pocatello and Meridian, Idaho, and Anchorage, Alaska. The fourth year of the program consists of seven six-week blocks of clinical clerkship experiences called Advanced Pharmacy Practice Experiences (APPE). The entire four-year program, including clerkships, is completed in Alaska.

Eligibility

Alaska residents are given preference in applying for admission to the Anchorage site. Applicants must meet common requirements established by the ISU College of Pharmacy, including prerequisites in biology, chemistry, physics and social sciences. Detailed eligibility information is available on the ISU College of Pharmacy website (https://www.isu.edu/pharmacy/).

Admissions

Applications are submitted through PharmCAS, a national Pharmacy College Application Service (http://www.pharmcas.org/). All applications received by ISU from Alaskan residents will be considered for the UAA/ISU program in Anchorage, Alaska. Complete application information including details about the selection process can be found on the ISU website (https://www.isu.edu/pharmacy/).

Accreditation

Students should address questions regarding accreditation to Idaho State University.

Faculty & Staff

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Master of Arts or Master of Science in Interdisciplinary Studies

***Graduate School, Administration/Humanities Building, Rm 214 (907) 786-1098,* uaa_graduateschool@alaska.edu**

Students who are interested in studies that cross traditional disciplinary boundaries are offered a unique degree that offers flexibility, creativity and collaboration. Today's students are faced with an increasing demand for interdisciplinary approaches to research and education, and may be interested in the interdisciplinary studies program in either arts or sciences. The degree is overseen by the Graduate School and combines coursework in two or more disciplines/programs and may involve more than one academic college.

Program Objectives

An Interdisciplinary Studies Master's degree makes it possible for graduate students interested in combining disciplines to create a degree program to suit their needs, when no existing graduate program does. The program of study for each student will be designed by the student and the faculty mentors.

This degree supports the learner-centered, discovery-driven, and globally engaged missions of UAA by meeting individual student needs, promoting academic collaboration across the university, and producing scholars with a global approach to solving problems.

Student Learning Outcomes

In keeping with the above objectives, the expected student learning outcomes of the Master of Arts (MA) or Master of Science (MS) in Interdisciplinary Studies include the ability to:

- Demonstrate an understanding of the relationship between the various disciplines incorporated into the Graduate Studies Plan (GSP);
- Demonstrate proficiency of research methodology and research design, or creative activities appropriate to the interdisciplinary nature of their work through the culminating experience;
- Identify and apply the relevant theoretical framework of the disciplines incorporated into their Graduate Studies Plan;
- Demonstrate application of specific knowledge in the particular area of study associated with the thesis or project;
- Demonstrate mastery of their subject matter on their Graduate Studies Plan; and
- Demonstrate knowledge of the careers, professions and/or future academic opportunities available to them upon completion of their studies.

Admission Requirements

A prospective student must first contact the Graduate School before beginning the application process to ensure eligibility, viability of their proposed plan of study, and to discuss their educational goals.

Students must satisfy the Admission Requirements for Graduate Degrees (p. 43) and deadlines. All students must also submit the following to the UAA Office of Admissions:

1. Submission of the official scores from the GRE General Test if the "home" program requires the test. The "home" department is that of the primary graduate advisor;
2. Current resume or curriculum vitae;
3. At least two letters of recommendation that address the academic qualifications of the applicant to complete graduate-level work for the degree program; and
4. A proposed Graduate Studies Plan (GSP) of at least 30 credits, signed by the proposed primary graduate advisor. The GSP must designate a concentration or emphasis area of study. It must also include the proposed graduate committee, who agree to serve. The proposed committee must represent at least two of the programs of courses listed on the GSP. At least one committee member must be from an existing graduate degree program at UAA.

Admission decisions will be based on having a robust and scholarly GSP that meets the above requirements. Both the GSP and admission recommendation must be approved by the Dean of the Graduate School.

Graduate Studies Plan (GSP) Requirements

- A minimum of 30 total credits;
- A minimum of 21 credits of 600-level courses, including at least two courses from a minimum of two different disciplines;
- One research methodology course; and
- At least 3 credits, and no more than 6 credits, of thesis or project.

Thesis Expectations

Students who undertake a research-based thesis should be able to demonstrate that they can:

- Develop a testable hypothesis or explore research questions;
- Locate, retrieve and utilize appropriate information:
- Read, understand, and critically review the primary literature;
- Utilize appropriate methodology to conduct a research-based study;
- Analyze results using qualitative or quantitative techniques:
- Compare their results to previous studies;
- Explain the contribution of their study to the broader field of existing knowledge;
- Communicate the importance of their work in an oral presentation; and
- Communicate the importance of their work in written format.

Project Expectations

Students who undertake a project should be able to demonstrate that they can:

- Develop a plan for the project or develop a plan for a scholarly or creative work;
- Locate, retrieve and utilize appropriate information;
- Read, understand, and critically review the primary literature or previous creative works;
- Utilize appropriate methodologies to conduct an applied study, implement a project, or utilize appropriate skills to produce a creative work:
- Analyze results using qualitative or quantitative techniques when appropriate;
- Compare their results to previous studies when appropriate;
- Explain the contribution of their work to the broader field of existing knowledge or to previously created works: and
- Communicate the originality of, as well as the independent thinking and rationale for their work, in written format.

Graduation Requirements

- Complete the General University Requirements for Graduate Degrees (p. 358);
- Complete and defend a thesis or a project. The defense must be approved by the majority of graduate committee members, and by the Dean of the Graduate School; and
- All theses and projects must have final approval by the Dean of the Graduate School, including formatting requirements.

Undergraduate Programs

To meet Alaska's higher education needs and to serve all Alaskans, from first-time college students to working professionals, UAA's undergraduate programs range from short-term certificates to traditional two-year and four-year degrees.

- **Minors**: Minors must be earned along with a baccalaureate degree.
- **Accelerated Pathways to Master's Degrees:** Baccalaureate degrees with an "*" below offer an accelerated pathway where students may count a set number of credits toward both the UAA baccalaureate and master's degree. Go to the Graduate Programs section of the catalog and select the relevant Master's degree program for more information.

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- Petroleum Technology (UC) (p. 720)
- Pharmacy Technology (OEC) (p. 658)
- Philosophy (BA) (p. 528)
- Philosophy (Minor) (p. 530)
- Phlebotomist (OEC) (p. 659)
- Physical Therapist Assistant (AAS) (p. 659)
- Physics (Minor) (p. 532)
- Political Science (BA) (p. 530)
- Political Science (Minor) (p. 532)
- Pre-Medical Studies (PBCT) (p. 662)
- Process Technology (AAS) (p. 721)
- Professional Piloting (AAS) (p. 723)
- Professional Writing (OEC) (p. 532)
- Project Management (BS) (p. 597)
- Project Management (Minor) (p. 599)
- Psychology (BA) (p. 533)
- Psychology (BS) (p. 535)
- Psychology (Minor) (p. 539)
- Public Health (Minor) (p. 663)

R

- Radiologic Technology (AAS) (p. 663)
- Real Estate (Minor) (p. 566)
- Refrigeration & Heating (OEC) (p. 724)
- Refrigeration & Heating Technology (AAS) (p. 725)
- Refrigeration & Heating Technology (UC) (p. 725)
- Remote Pilot Operations (OEC) (p. 725)
- Residential & Light Commercial Heating & Ventilation (OEC) (p. 726)

S

- Safety Specialist (OEC) (p. 726)
- Small Business Administration (AAS) (p. 566)
- Social Welfare Studies (Minor) (p. 665)
- Social Work (BSW) (p. 665)
- Sociology (Minor) (p. 539)
- Speech-Language Pathology (Minor) (p. 669)
- Speech-Language Pathology (PBCT) (p. 670)
- Speech-Language Pathology Assistant (AAS) (p. 670)
- Surgical Technology (AAS) (p. 672)

T

- Technology (AAS) (p. 726)

U

- University Honors College (p. 732)

V

- Valve Repair and Maintenance (OEC) (p. 727)
- Veterinary Assisting (OEC) (p. 727)
- Veterinary Technology (AAS) (p. 728)

W

- Web Engineering (OEC) (p. 730)
- Welding (OEC) (p. 730)
- Welding (UC) (p. 730)
- Welding Technology (UC) (p. 731)
- Welding, Advanced (OEC) (p. 732)
- Women's & Gender Studies (Minor) (p. 540)

Workforce Credentials

Contact the associated college for more information.

Major	Degree/ Certificate	College
Bridge to College and Careers	N/A	CTC
Bridge to Independence through Career Readiness	N/A	COH
Leadership Education in Neurodevelopmental Disabilities (LEND)	N/A	COH

College Key

Code	Description
CAS	College of Arts and Sciences
CBPP	College of Business and Public Policy
SOE	School of Education
COEng	College of Engineering
COH	College of Health
CTC	Community and Technical College
HC	University Honors College

Program Key

Code	Description
OEC	Occupational Endorsement Certificate
UC	Undergraduate Certificate
AA	Associate of Arts
AAS	Associate of Applied Science
AS	Associate of Science
BA	Bachelor of Arts
BBA	Bachelor of Business Administration
BFA	Bachelor of Fine Arts
BHS	Bachelor of Human Services
BM	Bachelor of Music
BS	Bachelor of Science
BSW	Bachelor of Social Work
Minor	Minor
PBCT	Post-Baccalaureate Certificate

Programs Delivered at the Anchorage Campus

Occupational Endorsement Certificates

Major	Degree/ Certificate	College
Advanced Welding (p. 732)	OEC	CTC
Alaska Native Business Management (p. 545)	OEC	CBPP
Applied Behavior Analysis (suspended) (p. 472)	OEC	CAS
Automotive Engine Performance (p. 683)	OEC	CTC
Automotive Specialist (p. 683)	OEC	CTC
Baking & Pastry Arts (p. 698)	OEC	CTC
Bookkeeping (p. 546)	OEC	CBPP
Business Analytics (p. 547)	OEC	CBPP
Business Leadership (p. 550)	OEC	CBPP
Children’s Behavioral Health (p. 604)	OEC	COH
Cisco-Certified Network Associate (p. 698)	OEC	CTC
Community, Conflict, and Communication (p. 605)	OEC	COH
Conflict Resolution (p. 605)	OEC	COH
Culinary Arts (p. 700)	OEC	CTC
Dena'ina Language (https://nextcatalog.uaa.alaska.edu/undergraduateprograms/cas/oec-denainalanguage/)	OEC	CAS
Diversity & Social Justice (suspended) (p. 616)	OEC	COH
Electric Vehicle and Hybrid Specialist (p. 712)	OEC	CTC
Entrepreneurship (p. 557)	OEC	CBPP
Event Production (p. 496)	OEC	CAS
Fermentation Science (p. 496)	OEC	CAS
Geographic Information Systems (p. 591)	OEC	COEng
Gerontology (p. 618)	OEC	COH
Graphic Design (p. 499)	OEC	CAS
Guardianship (p. 619)	OEC	COH
Hospitality (suspended) (p. 561)	OEC	CBPP
Indian Child Welfare Act (p. 628)	OEC	COH
Infant & Toddler Development (p. 575)	OEC	SOE
Interprofessional Child Welfare (p. 628)	OEC	COH
IT Support Desk Technician (p. 713)	OEC	CTC
Medical Assisting (p. 636)	OEC	COH
Medical Office Coding (p. 642)	OEC	COH
Nondestructive Testing Technology (suspended) (p. 716)	OEC	CTC
Pharmacy Technology (p. 658)	OEC	COH
Phlebotomist (p. 659)	OEC	COH
Professional Writing (p. 532)	OEC	CAS
Remote Pilot Operations (p. 725)	OEC	CTC

Safety Specialist (p. 726)	OEC	CTC
Welding (p. 730)	OEC	CTC

Undergraduate Certificates

Major	Degree/ Certificate	College
Ahtna Language Instruction (p. 463)	UC	CAS
Automotive Technology (p. 686)	UC	CTC
Aviation Maintenance Technology, Airframe (p. 690)	UC	CTC
Aviation Maintenance Technology, Powerplant (p. 691)	UC	CTC
Dena'ina Language Instruction (p. 492)	UC	CAS
Dental Assisting (suspended) (p. 608)	UC	COH
Diesel Power Technology (p. 711)	UC	CTC

Associate Degrees

Associates of Applied Science

Major	Degree/ Certificate	College
Accounting (p. 541)	AAS	CBPP
Air Traffic Control (p. 676)	AAS	CTC
Apprenticeship Technology (p. 679)	AAS	CTC
Architectural and Engineering Technology (p. 680)	AAS	CTC
Automotive Technology (p. 684)	AAS	CTC
Aviation Maintenance Technology (p. 687)	AAS	CTC
Business Computer Information Systems (suspended) (p. 550)	AAS	CBPP
Computer and Networking Technology (suspended) (p. 703)	AAS	CTC
Computer Systems and Network Technology (p. 703)	AAS	CTC
Construction Management (p. 705)	AAS	CTC
Culinary Arts (p. 699)	AAS	CTC
Dental Assisting (suspended) (p. 608)	AAS	COH
Diagnostic Medical Sonography (p. 611)	AAS	COH
Diesel Power Technology (p. 709)	AAS	CTC
Early Childhood Development (p. 566)	AAS	SOE
Fire and Emergency Services Technology (p. 617)	AAS	COH
General Business (p. 560)	AAS	CBPP
Geomatics (p. 592)	AAS	COEng
Human Services (p. 624)	AAS	COH
Medical Assisting (p. 634)	AAS	COH
Medical Laboratory Technology (p. 640)	AAS	COH
Nursing (p. 642)	AAS	COH
Occupational Safety and Health (p. 716)	AAS	CTC
Paralegal Studies (p. 653)	AAS	COH
Physical Therapist Assistant (p. 659)	AAS	COH
Professional Piloting (p. 723)	AAS	CTC
Radiologic Technology (p. 663)	AAS	COH
Small Business Administration (p. 566)	AAS	CBPP
Speech-Language Pathology Assistant (p. 670)	AAS	COH
Surgical Technology (p. 672)	AAS	COH
Technology (p. 726)	AAS	CTC

Associates of Arts

Major	Degree/ Certificate	College
Alaska Native Studies (p. 463)	AA	CAS
Associate of Arts (p. 477)	AA	CAS

Associate of Science

Major	Degree/ Certificate	College
Associate of Science (p. 479)	AS	CAS

Baccalaureate Degrees

Bachelors of Arts

Major	Degree/ Certificate	College
Anthropology (p. 467)	BA	CAS
Art (p. 472)	BA	CAS
Biological Sciences (p. 480)	BA	CAS
Communication (p. 701)	BA	CTC
Computer Science (p. 579)	BA	COEng
Criminology and Criminal Justice (p. 606)	BA	COH
Early Childhood Education (p. 568)	BA	SOE
Economics (p. 552)	BA	CBPP

English (p. 492)	BA	CAS
Environment and Society (suspended) (p. 495)	BA	CAS
History (p. 499)	BA	CAS
Interdisciplinary Studies (p. 501)	BA	CAS
International Studies (p. 502)	BA	CAS
Journalism and Public Communications (p. 505)	BA	CAS
Languages (p. 507)	BA	CAS
Legal Studies (p. 631)	BA	COH
Mathematics (p. 511)	BA	CAS
Music (p. 517)	BA	CAS
Philosophy (p. 528)	BA	CAS
Political Science (p. 530)	BA	CAS
Psychology (p. 533)	BA	CAS

Bachelors of Business Administration

Major	Degree/ Certificate	College
Accounting (p. 543)	BBA	CBPP
Business and Data Analytics (p. 548)	BBA	CBPP
Economics (p. 554)	BBA	CBPP
Finance (p. 558)	BBA	CBPP
Global Logistics and Supply Chain Management (suspended) (p. 561)	BBA	CBPP
Management (p. 561)	BBA	CBPP
Marketing (p. 564)	BBA	CBPP

Bachelor of Fine Arts

Major	Degree/ Certificate	College
Art (p. 474)	BFA	CAS

Bachelor of Human Services

Major	Degree/ Certificate	College
Bachelor of Human Services (p. 625)	BHS	COH

Bachelor of Music

Major	Degree/ Certificate	College
Bachelor of Music (p. 518)	BM	CAS

Bachelors of Science

Major	Degree/ Certificate	College
Anthropology (p. 469)	BS	CAS
Applied Technologies Leadership (p. 679)	BS	CTC
Aviation Technology (p. 692)	BS	CTC
Biological Sciences (p. 483)	BS	CAS
Chemistry (p. 487)	BS	CAS
Civil Engineering (p. 576)	BS	COEng
Computer Science (p. 582)	BS	COEng
Computer Systems Engineering (p. 585)	BS	COEng
Construction Management (p. 706)	BS	CTC
Dental Hygiene (p. 608)	BS	COH
Dietetics (p. 614)	BS	COH
Electrical Engineering (p. 587)	BS	COEng
Environment and Society (suspended) (p. 496)	BS	CAS
Geological Sciences (p. 497)	BS	CAS
Geomatics (p. 593)	BS	COEng
Health Sciences (p. 619)	BS	COH
Interdisciplinary Studies (p. 501)	BS	CAS
Kinesiology (p. 629)	BS	COH
Mathematics (p. 514)	BS	CAS
Mechanical Engineering (p. 600)	BS	COEng
Medical Laboratory Science (p. 637)	BS	COH
Natural Sciences (p. 522)	BS	CAS
Nursing (p. 645)	BS	COH
Occupational Safety and Health (p. 717)	BS	CTC
Project Management (p. 597)	BS	COEng
Psychology (p. 535)	BS	CAS

Bachelor of Social Work

Major	Degree/ Certificate	College
Bachelor of Social Work (p. 665)	BSW	COH

Minors

Minors must be earned along with a baccalaureate degree.

Major	Degree/ Certificate	College
Accounting (p. 545)	MNR	CBPP
Air Traffic Control (p. 678)	MNR	CTC

Alaska Native Business Management (p. 545)	MNR	CBPP
Alaska Native Studies (p. 465)	MNR	CAS
Anthropology (p. 472)	MNR	CAS
Art (p. 477)	MNR	CAS
Athletic Training (p. 604)	MNR	COH
Aviation Technology (p. 697)	MNR	CTC
Behavior Analysis (not available) (p. 480)	MNR	CAS
Business Administration (p. 547)	MNR	CBPP
Children's Mental Health (p. 489)	MNR	CAS
Communication (p. 703)	MNR	CTC
Computer Information Systems (p. 551)	MNR	CBPP
Computer Science (p. 584)	MNR	COEng
Computer Systems Engineering (p. 587)	MNR	COEng
Creative Writing (p. 490)	MNR	CAS
Criminology and Criminal Justice (p. 608)	MNR	COH
Cultural and Natural Resource Management (p. 490)	MNR	CAS
Dance (p. 491)	MNR	CAS
Economics (p. 556)	MNR	CBPP
Electrical Engineering (p. 590)	MNR	COEng
English (p. 495)	MNR	CAS
Entrepreneurship (p. 556)	MNR	CBPP
Environmental Studies (not available) (p. 496)	MNR	CAS
Geographic Information Systems (GIS) (p. 591)	MNR	COEng
History (p. 501)	MNR	CAS
Hospitality Administration (not available) (p. 561)	MNR	CBPP
Human Services (p. 627)	MNR	COH
International Studies (p. 504)	MNR	CAS
Journalism & Public Communications (p. 507)	MNR	CAS
Languages (p. 510)	MNR	CAS
Legal Studies (p. 634)	MNR	COH
Mathematics (p. 517)	MNR	CAS
Mechanical Engineering (p. 603)	MNR	COEng
Music (p. 520)	MNR	CAS
National Defense, Strategic Studies, and Leadership: Air Force (p. 715)	MNR	CTC
National Defense, Strategic Studies, and Leadership: Army (p. 715)	MNR	CTC
Neuroscience (p. 527)	MNR	CAS
Nutrition (p. 650)	MNR	COH
Occupational Safety & Health (p. 719)	MNR	CTC
Outdoor Leadership (p. 652)	MNR	COH
Philosophy (p. 530)	MNR	CAS
Physics (p. 532)	MNR	CAS
Political Science (p. 532)	MNR	CAS
Project Management (p. 599)	MNR	COEng
Psychology (p. 539)	MNR	CAS
Public Health (p. 663)	MNR	COH
Real Estate (p. 566)	MNR	CBPP
Social Welfare Studies (p. 665)	MNR	COH
Sociology (p. 539)	MNR	CAS
Speech-Language Pathology (p. 669)	MNR	COH
Women’s and Gender Studies (p. 540)	MNR	CAS

Post-Baccalaureate Certificate Programs

Major	Degree/ Certificate	College
Early Childhood Education Pre-K - Third Grade (p. 574)	PBCT	SOE
Paralegal Studies (p. 655)	PBCT	COH
Pre-Medical Studies (p. 662)	PBCT	COH
Speech-Language Pathology (p. 670)	PBCT	COH

Specialty Programs

(No degree or certificate awarded)

Major	Degree/ Certificate	College
Air Force ROTC (p. 675)	N/A	CTC
Army ROTC (p. 681)	N/A	CTC
University Honors Scholar (p. 732)	N/A	HC

Non-Academic Programs

Workforce Credentials

(Contact the associated college for more information)

Major	Degree/ Certificate	College
Bridge to College and Careers	N/A	CTC
Bridge to Independence through Career Readiness	N/A	COH

Leadership Education in Neurodevelopmental Disabilities (LEND)	N/A	COH

Programs Delivered at Kenai Peninsula College

Occupational Endorsement Certificates

Major	Degree/ Certificate	College
Ahtna Language (p. 462)	OEC	CAS
Conservation Ecology (p. 489)	OEC	CAS
Corrections (suspended) (p. 605)	OEC	COH
Dena'ina Language (p. 491)	OEC	CAS
Marine Mammal Biology (p. 510)	OEC	CAS
Petroleum Production (p. 720)	OEC	CTC
Valve Repair and Maintenance (p. 727)	OEC	CTC

Undergraduate Certificates

Major	Degree/ Certificate	College
Ahtna Language Instruction (p. 463)	UC	CAS
Corrections (suspended) (p. 605)	UC	COH
Dena'ina Language Instruction (p. 492)	UC	CAS
Petroleum Technology (p. 720)	UC	CTC
Welding Technology (p. 731)	UC	CTC

Associates of Applied Science

Major	Degree/ Certificate	College
General Business (p. 560)	AAS	CBPP
Industrial Process Instrumentation (p. 713)	AAS	CTC
Paramedical Technology (p. 656)	AAS	COH
Process Technology (p. 721)	AAS	CTC
Technology (p. 726)	AAS	CTC

Associates of Arts

Major	Degree/ Certificate	College
Alaska Native Studies (p. 463)	AA	CAS
Associate of Arts (p. 477)	AA	CAS

Associate of Science

Major	Degree/ Certificate	College
Associate of Science (p. 479)	AS	CAS

Programs Delivered at Kodiak College

Occupational Endorsement Certificate

Major	Degree/ Certificate	College
Alutiiq Language (p. 466)	OEC	CAS

Undergraduate Certificate

Major	Degree/ Certificate	College
Welding (p. 730)	UC	CTC

Associates of Applied Science

Major	Degree/ Certificate	College
Accounting (p. 541)	AAS	CBPP
General Business (p. 560)	AAS	CBPP
Technology (p. 726)	AAS	CTC

Associates of Arts

Major	Degree/ Certificate	College
Alaska Native Studies (p. 463)	AA	CAS
Associate of Arts (p. 477)	AA	CAS

Associate of Science

Major	Degree/ Certificate	College
Associate of Science (p. 479)	AS	CAS

Programs Delivered at Matanuska-Susitna College

Occupational Endorsement Certificates

Major	Degree/ Certificate	College
Cisco-Certified Network Associate (p. 698)	OEC	CTC
Commercial Refrigeration Systems (suspended) (p. 701)	OEC	CTC
Refrigeration & Heating (p. 724)	OEC	CTC
Residential and Light Commercial Heating and Ventilation (suspended) (p. 726)	OEC	CTC
Veterinary Assisting (p. 727)	OEC	CTC

Undergraduate Certificate

Major	Degree/ Certificate	College
Refrigeration and Heating Technology (suspended) (p. 725)	UC	CTC

Associates of Applied Science

Major	Degree/ Certificate	College
Accounting (p. 541)	AAS	CBPP
Computer Systems and Network Technology (p. 703)	AAS	CTC
General Business (p. 560)	AAS	CBPP
Human Services (p. 624)	AAS	COH
Refrigeration and Heating Technology (suspended) (p. 725)	AAS	CTC
Small Business Administration (suspended) (p. 566)	AAS	CBPP
Technology (p. 726)	AAS	CTC
Veterinary Technology (p. 728)	AAS	CTC

Associate of Arts

Major	Degree/ Certificate	College
Associate of Arts (p. 477)	AA	CAS

Associate of Science

Major	Degree/ Certificate	College
Associate of Science (p. 479)	AS	CAS

Programs Delivered at Prince William Sound College

Occupational Endorsement Certificates

Major	Degree/ Certificate	College
Construction Skills (p. 709)	OEC	CTC
Marine Natural Resources Technician (p. 510)	OEC	CAS
Marine Service Technology (p. 714)	OEC	CTC
Millwright (p. 714)	OEC	CTC
Natural Resources Technician (p. 521)	OEC	CAS
Web Engineering (suspended) (p. 730)	OEC	CTC

Undergraduate Certificate

Major	Degree/ Certificate	College
Outdoor Leadership (p. 652)	UC	COH

Associates of Applied Science

Major	Degree/ Certificate	College
Outdoor Leadership (p. 650)	AAS	COH
Technology (p. 726)	AAS	CTC

Associate of Arts

Major	Degree/ Certificate	College
Associate of Arts (p. 477)	AA	CAS

Associate of Science

Major	Degree/ Certificate	College
Associate of Science (p. 479)	AS	CAS

Occupational Endorsement Certificates (OECs)

Definition

Occupational endorsement certificates (OECs) are certificates requiring 29 or fewer credits to complete. These certificates provide the specialized knowledge and skills needed in specific employment sectors.

General University Requirements for Occupational Endorsement Certificates

At a minimum, in order to earn an Occupational Endorsement Certificate:

1. Be admitted to the program.
2. Complete a minimum of 9 credits at the 100-level or above for the Occupational Endorsement Certificate.
3. Complete at least 25% of the total credits required for the Occupational Endorsement Certificate in residence.
4. Complete all major requirements.
5. Earn a cumulative GPA of at least 2.00 (C) at UAA.
6. Earn a cumulative GPA of at least 2.00 (C) in all major requirements.
7. Complete all certificate requirements within five years of formal admission.
    a. Students may elect to graduate under the requirements of any catalog in effect during their formal admission as a certificate-seeking student.

See the program specific page for all requirements.

Undergraduate Certificates

Definition

Undergraduate certificates of 30-60 credits offer focused instruction in a concentrated area. These certificates provide knowledge and skill development in broad enough areas to prepare students for entry into a variety of career fields. They are particularly appropriate in scientific or technical areas such as health care, computer systems, transportation or industrial technology.

General University Requirements for Undergraduate Certificates

At a minimum, in order to earn an Undergraduate Certificate:

1. Be admitted to the program.
2. Complete a minimum of 30 credits at the 100 level or above for the Undergraduate Certificate.
3. Complete at least 25% of the total credits required for the Undergraduate Certificate in residence.
4. Complete all major requirements.
5. Earn a cumulative GPA of at least 2.00 (C) at UAA.
6. Earn a cumulative GPA of at least 2.00 (C) in all major requirements.
7. Complete all certificate requirements within five years of formal admission.
    a. Students may elect to graduate under the requirements of any catalog in effect during their formal admission as a certificate-seeking student.

See the program specific page for all requirements.

Associate Degrees

Definition

UAA offers three types of associate degrees, all of which require the completion of a minimum of 60 credits:

- **Associate of Arts (AA)** degrees combine broad studies in written communication, oral communication, humanities, mathematics, natural sciences and social sciences, with elective coursework selected by the student. The degree provides broad exposure to systems of thought and inquiry, allows exploration of a variety of disciplines and learning experiences, and provides a solid foundation for further study at the baccalaureate level.
- **The Associate of Science (AS)** degree combines broad studies in written communication, oral communication, humanities, mathematics, natural sciences and social sciences, with elective coursework particularly in the areas of natural sciences, social sciences, and health-related fields. The AS provides a solid foundation for further study at the baccalaureate level, with advising pathways into social science, natural science, health, and behavioral health degrees.
- **Associate of Applied Science (AAS)** degrees provide applied or specialized studies that are used to satisfy a student's specific educational needs. Many AAS programs prepare students for work in a particular field of employment. Some AAS programs are designed to provide a foundation for a specific related baccalaureate degree. Students in AAS programs build knowledge and skills needed to carry out specific tasks while they develop abilities in the essential elements of communications, computation and human relations.

General University Requirements for Associate Degrees

At a minimum, in order to earn an Associate degree:

1. Be admitted to the program.
2. Complete a minimum of 60 credits at the 100-level or above for the Associate degree.
3. Complete at least 15 credits in residence.
4. Students pursuing the Associate of Applied Science (AAS) degree complete the Associate of Applied Science General Education Requirements (GERs).
5. Complete all major requirements.
6. Earn a cumulative GPA of at least 2.00 (C) at UAA.
7. Earn a cumulative GPA of at least 2.00 (C) in all major requirements.
8. Complete all degree requirements within five years of formal admission.
    a. Students may elect to graduate under the requirements of any catalog in effect during their formal admission as a degree-seeking student.

See the program specific page for all requirements.

General Education Requirements (GERs) for Associate of Applied Science (AAS) Degrees

Student Learning Outcomes

The design of Associate of Applied Science (AAS) degree ensures that students gain some proficiency in essential skills of communication, computation and human relations. Graduates of AAS degrees shall be able to meet the following Student Learning Outcomes applicable to these areas of related instruction:

- Communicate effectively
- Analyze empirically
- Relate cooperatively

Requirements (12 credits)

- Complete 3 credits from the GER Oral Communication Skills list (p. 446).
- Complete 6 credits from the GER Written Communication Skills list (p. 446).

- Complete 3 credits from the GER Quantitative Skills (p. 446) list or MATH A105. To determine the appropriate quantitative skills course, students will want to work with their academic advisor, as AAS pathways differ.

Additional Policies for Associate Degrees

Double Majors for Associate of Applied Science Programs

Associate of Applied Science (AAS) degrees are intended to provide specialized education. Therefore, they do include a major specialty and students may earn more than one AAS.

AAS degree-seeking students may apply to graduate (during the same semester) with two majors. For example, a student may select two areas from the approved majors within the AAS program (such as Welding and Automotive Technology).

Once formally admitted, students may add a second major through the Change of Major process. Forms are available on the Office of the Registrar's forms website (https://www.uaa.alaska.edu/students/registrar/). Students must satisfy the Associate Degrees General University Requirements, the AAS General Education Requirements and both sets of major requirements.

Students may elect to graduate under the requirements of any catalog in effect during the five years after formal acceptance to the program.

A double major is not applicable to the Associate of Arts (AA) or Associate of Science (AS).

Transfer Students

Students who have received a baccalaureate degree, an Associate of Arts (AA) degree, or an Associate of Science (AS) degree from another institutionally accredited college or university and who want to obtain an Associate of Applied Science (AAS) degree from UAA must:

- Meet admission requirements.
- Complete the Associate Degrees General University Requirements but not the AAS General Education Requirements.
- Complete all school/college requirements, if applicable, and the major requirements.

Baccalaureate Degrees

Definition

Baccalaureate, or bachelor’s, degrees consist of a minimum of 120 credits and comprise three interrelated parts:

- *General Education Requirements*, which provide students a broad overview of the liberal arts and sciences and create the foundation for further study in the major or program, lifelong learning and workplace preparedness. GERs are best taken early in a student's academic career.
- *Major Requirements*, which afford students intensive study in a specialized subject, program or professional area. The major prepares a student for employment and/or graduate-level course work.
- *Elective Credits*, which are the body of work to complete the 120 credits. These credits may be limited, as in the case of many professional programs, or open for the student's choice, allowing for students to investigate other areas of interest. Students may choose to declare a Minor (generally 18-24 credits from within the Elective credits) to pursue an additional area of study or qualification. A well-selected minor can strongly complement a student's major area of study.

Bachelor of Arts (BA) degrees generally require additional course work in the liberal arts, humanities, and social sciences and offer greater flexibility in elective credits, with a focus upon broad-based achievement in preparation for graduate school, the corporate or business worlds, or education.

Bachelor of Science (BS) degrees generally require additional course work in math and the natural sciences (with labs), with a focus upon discipline-specific technical classes pertaining to particular professions or preparation for advanced study.

UAA also offers the Bachelor of Business Administration (BBA), the Bachelor of Fine Arts (BFA), the Bachelor of Human Services (BHS), the Bachelor of Music (BM), and the Bachelor of Social Work (BSW).

BA and BS degrees in the same discipline differ by a minimum of 12 credits.

Minor: A minor is a component of a baccalaureate degree. A minor may only be issued simultaneously with a baccalaureate degree. A minor from UAA consists of a minimum of 18 credits, at least 6 of which must be upper division. Students must earn at least 3 credits in residence in each minor field. They must also earn a UAA cumulative grade point average (GPA) of at least 2.00 (C) in the minor. Students must follow minor requirements from the same catalog used for the baccalaureate program. Refer to each discipline for specific requirements. Students must declare minors no later than the deadline to submit an Application for Graduation.

General University Requirements for Baccalaureate Degrees

At a minimum, in order to earn a Baccalaureate degree:

1. Be admitted to the program.
2. Complete a minimum of 120 credits at the 100-level or above for the Baccalaureate degree.
3. Complete at least 39 upper-division credits.
4. Complete at least 30 credits in residence, of which 24 must be upper-division.
5. Complete the General Education Requirements (p. 443) (GERs) for Baccalaureate degrees.
6. Complete all major requirements.
7. Earn a cumulative GPA of at least 2.00 (C) at UAA.
8. Earn a cumulative GPA of at least 2.00 (C) in all major and minor requirements.

9. Complete all degree requirements within seven years of formal admission.
    a. Students may elect to graduate under the requirements of any catalog in effect during their formal admission as a degree-seeking student.

See the program specific page for all requirements.

Additional Policies for Baccalaureate Degrees

Double Majors

Baccalaureate degree-seeking students may graduate (during the same semester) with two majors, provided that the degree is the same for each major. For example, a student may select two areas from the approved majors within a Bachelor of Arts degree program (such as history and political science). Students must apply for, and be accepted into, each major. Students may add a second major at a later date through the change of major/degree process. Forms are available on the Office of the Registrar's website (https://www.uaa.alaska.edu/students/registrar/index.cshtml/). Students must satisfy the General University Requirements, the General Education Requirements for the primary program, both sets of school/college requirements, if applicable, and major requirements. Students may elect to graduate under the requirements of any catalog in effect during the seven years after formal acceptance (p. 21) to a baccalaureate degree program.

Multiple Degrees

Baccalaureate degree-seeking students may graduate (during the same semester) with multiple degrees provided they have applied for and been accepted in each degree program. Students must submit a separate Application for Admission and Application for Graduation for each degree they expect to complete. Students can apply for admission online through the Office of Admissions website (https://www.uaa.alaska.edu/admissions/). Students can apply for graduation through their UAOnline (https://uaonline.alaska.edu/) account. Students may elect to graduate under the requirements of any catalog in effect during the seven years after formal acceptance (p. 21) to a baccalaureate degree program. Baccalaureate degree-seeking students must complete the General University Requirements, the General Education Requirements, school/college requirements, if applicable, all major requirements, and at least 24 resident credits beyond each degree completed (i.e., if the first degree requires a total of 120 credits, the second requires at least 144 total credits, and the third requires at least 168 total credits, etc.).

Second Baccalaureate Degree for UAA Students

Students who have received a baccalaureate degree from UAA, who return and want to obtain a different baccalaureate degree must:

- Meet admission requirements.
- Complete at least 24 resident credits after the posting of the previous baccalaureate degree(s) awarded.
- Complete the school/college requirements, if applicable, and the major requirements, including any resident and/or upper-division requirements, for the second degree.
- Maintain a cumulative GPA of at least 2.00 (C) at UAA in order to graduate. Some programs may require a higher GPA in the major.

Second Baccalaureate Degree for Transfer Students

Students who have received a baccalaureate degree from another institutionally accredited college or university and who want to obtain a baccalaureate degree from UAA must:

- Meet admission requirements.
- Complete the General University Requirements but not the General Education Requirements.
- Complete all school/college requirements, if applicable, and the major requirements.

General Education Requirements (GERs) for Baccalaureate Degrees

General Education Requirements (GERs) provide students with a common educational experience in order to provide a foundation for further study and broaden the educational experience of every degree-seeking student. They are designed to promote an elevation of the student’s level in basic college-level skills (Tier 1), a breadth of exposure to traditional academic disciplines (Tier 2), and an understanding of how to integrate and apply knowledge to an evolving world (Tier 3).

UAA’s General Education Values

Develop intellectual and practical skills across the curriculum, including inquiry and analysis, quantitative literacy, critical and creative thinking, problem solving, written and oral communication, information literacy, and collaborative learning.

Build knowledge of human institutions, socio-cultural processes, and the physical and natural world through study of the natural and social sciences, mathematics, humanities, and the arts.

Acquire tools for effective civic engagement in local through global contexts, including ethical reasoning and intercultural competence, with particular emphasis on Alaska and the circumpolar north.

Integrate and apply learning, including ability to synthesize knowledge and skills across general and specialized studies, adapting them to new settings, questions, and responsibilities, and forming a foundation for lifelong learning.

GER Student Learning Outcomes

After completing the GERs, UAA students shall be able to:

- Communicate effectively in a variety of contexts and formats.
- Reason mathematically and analyze quantitative and qualitative data competently to reach sound conclusions.
- Relate knowledge to the historical context in which it developed and the human problems it addresses.
- Interpret different systems of aesthetic representation and understand their historical and cultural contexts.
- Investigate the complexity of human institutions and behavior to better understand interpersonal, group and cultural dynamics.
- Identify ways in which science has advanced the understanding of important natural processes.
- Locate and use relevant information to make appropriate personal and professional decisions.
- Identify how personal, structural, and cultural factors produce diverse experiences and perspectives in society and apply effective and appropriate strategies to interact in local and global communities.
- Synthesize disciplinary knowledge, creative thinking, critical judgment, and reflection in a variety of contexts to assess complex issues.

Category	Description	Credits
Tier 1	Basic College-Level Skills	12
Tier 2	Disciplinary Areas	22
Tier 3	Integrative Capstone	3
Total		**37**

All students should consult a faculty or academic advisor for appropriate course selections.

- Baccalaureate students are required to complete 12 credits of basic college-level skills (oral, written and quantitative) before completing 60 total degree-applicable credits.
- Each of the eight GER classifications has a list of approved courses (see the General Education Requirements classification lists). Only courses from the GER classification list may be used to satisfy a distribution area requirement.
- Courses used to satisfy distribution area requirements in General Education may also be used to satisfy school/college requirements and/or degree/program requirements, but no course may be counted in more than one GER category.
- Courses ending with numbers _93 or _94 cannot satisfy a GER, and UAA courses not on the approved GER classification list cannot be petitioned to meet a GER.

Petitions for GERs and/or General University Requirements

Petitions pertaining to GERs and/or General University Requirements must be processed through the Office of Academic Affairs, with final authority to deny or approve resting with the provost. After the petition has received final approval or denial, the student is notified of the decision. Changes in course level, grading or number of credits awarded are not petitionable. UAA courses not on the approved baccalaureate GER lists cannot be petitioned to meet a GER. For more information, see the Academic Petition (p. 16) section.

GER Classification List

Courses listed as satisfying a GER are also identified in the course descriptions (p. 66). A course satisfying a particular GER in the semester in which it was completed will continue to satisfy that GER for that student even if its status has changed in the catalog under which the student graduates.

Students who wish to use a UAF or UAS course to meet a UAA GER should refer to the table of substitutions below.

UAA Table of GER Substitutions

This table is intended to assist UAA students who wish to use UAF or UAS courses to meet a UAA GER per Board of Regents Policy P10.04.062.

Tier I: Basic College - Level Skills

UAA Courses	UAF Courses	UAS Courses
Oral Communication Skills - 3 Credits		
COMM A111, COMM A235, COMM A237, COMM A241	COM F121X, COM F131X, COM F141X	COMM S111, COMM S235, COMM S237, COMM S241
Quantitative Skills (Quantitative Literacy) - 3 Credits		

MATH A104, MATH A113, MATH A115, MATH A121, MATH A151, MATH A152, MATH A155, MATH A221, MATH A251, MATH A251F, MATH A252, MATH A252F, MATH A253, STAT A200, STAT A253	MATH F113X, MATH F122X, MATH F151X, MATH F152X, MATH F156X, MATH F230X, MATH F251X, MATH F252X, MATH F253X, STAT F200X	MATH S113, MATH S151, MATH S152, MATH S251, MATH S252, MATH S253, STAT S200
Written Communication Skills - 6 Credits		
WRTG A111, WRTG A211, WRTG A212, WRTG A213, WRTG A214	WRTG F111X, WRTG F211X, WRTG F212X, WRTG F213X, WRTG F214X	WRTG S111, WRTG S211, WRTG S212

Tier 2: Disciplinary Areas

UAA Courses	UAF Courses	UAS Courses
Fine Arts (Arts) - 3 Credits		
AKNS A215, AKNS A216, AKNS A261, ART A160, ART A261, ART A262, DNCE A170, MUS A100, MUS A110, MUS A121, MUS A215, MUS A216, MUS A224, THR A111, THR A121, THR A215	ACNS F223X, ANS F161X, ANS F202X, ANS F223X, ART F105X, ART F200X, ART F261X, ART F262X, ENGL F217X, FLPA F105X, FLPA F121X, FLPA F161X, FLPA F215X, FLPA F217X, HUM F201X, MUS F103X, MUS F125X, MUS F200X, MUS F223X	ART S105, ART S160, ART S181, ART S201, ART S260, ART S261, ART S262, ART S263, MUS S123, THR S111, THR S211, THR S212
Humanities - 6 Credits		
AKNS A101A, AKNS A101B, AKNS A101C, AKNS A101D, AKNS A101E, AKNS A101F, AKNS A101H, AKNS A101I, AKNS A102A, AKNS A102B, AKNS A102C, AKNS A102D, AKNS A102E, AKNS A102F, AKNS A102H, AKNS A102I, AKNS A114A, AKNS A114B, AKNS A114E, AKNS A114F, AKNS A114H, AKNS A114I, AKNS A201, AKNS A230, AKNS A240A, AKNS A240F, AKNS A240H, AKNS A240I, ASL A101, ASL A102, ASL A201, ASL A202, ENGL A120, ENGL A121, ENGL A200, ENGL A203, ENGL A205, ENGL A245, FREN A101, FREN A102, FREN A201, FREN A202, GER A101, GER A102, GER A201, GER A202, HIST A101, HIST A102, HIST A104, HIST A121, HIST A122, HIST A131, HIST A132, HNRS A192, HUM A211, HUM A212, JPN A101, JPN A102, JPN A201, JPN A202, LING A101, PHIL A101, PHIL A103, PHIL A201, PHIL A211, PHIL A212, PHIL A301, PHIL A305, PS A331, PS A332, PS A333, RUSS A101, RUSS A102, RUSS A201, RUSS A202, SPAN A101, SPAN A102, SPAN A201, SPAN A202, THR A211, THR A212	ANL F141X, ANL F142X, ANL F251X, ASLG F101X, ASLG F140X, ASLG F202X, CHNS F101X, CHNS F102X, ENGL F200X, ENGL F201X, ENGL F270X, FL F200X, FREN F101X, FREN F102X, FREN F201X, FREN F202X, GER F101X, GER F102X, GER F201X, GER F202X, INU F111X, INU F112X, JOUR F101X, JPN F101X, JPN F102X, JPN F201X, JPN F202X, LAT F101X, LAT F102X, LING F101X, LING F216X, PHIL F102X, PHIL F104X, RELG F221X, RUSS F101X, RUSS F102X, RUSS F201X, RUSS F202X, SPAN F101X, SPAN F102X, SPAN F201X, SPAN F202X, YUP F101X, YUP F102X	AKL S105, AKL S106, AKL S107, AKL S108, AKL S109, AKL S110, AKL S205, AKL S206, AKL S207, AKL S208, AKL S209, AKL S210, COMM (was JOUR) S101, ENGL S200, ENGL S215, ENGL S217, ENGL S226, ENGL S261, ENVI S120, FREN S101, FREN S102, HIST S105, HIST S106, HIST S131, HIST S132, HUM S120, PHIL S101, PHIL S201, PHIL S301, SPAN S101, SPAN S102, SPAN S201, SPAN S202
Natural Sciences - 7 Credits Including One Laboratory Course		
Laboratory Courses		

ANTH A205 / ANTH A205L, ANTH A211 / ANTH A211L, ASTR A103 / ASTR A103L, ASTR A104 / ASTR A104L, BIOL A102 / BIOL A103, BIOL A108, BIOL A111 / BIOL A111L, BIOL A112 / BIOL A112L, BIOL A178 / GEOL A178, BIOL A179 , CHEM A103 / CHEM A103L, CHEM A104 / CHEM A104L, CHEM A105 / CHEM A105L, CHEM A106 / CHEM A106L, GEOG A111 / GEOG A111L, GEOL A111 / GEOL A111L, GEOL A115 / GEOL A115L, GEOL A221, PHYS A123 / PHYS A123L, PHYS A124 / PHYS A124L, PHYS A211 / PHYS A211L, PHYS A212 / PHYS A212L	ATM F101X, BIOL F100X, BIOL F103X, BIOL F104X, BIOL F111X, BIOL F112X, BIOL F115X, BIOL F116X, BIOL F120X, BIOL F240X, CHEM F100X, CHEM F103X, CHEM F104X, CHEM F105X, CHEM F106X, CHEM F111X, ENVI F101X, ENVI F102X, ES F100L, ES F100X, GEOS F101X, GEOS F102X, GEOS F106X, GEOS F111X, GEOS F112X, GEOS F120X, MBI F111X, OCN F111X, PHYS F102X, PHYS F115X, PHYS F123X, PHYS F124X, PHYS F165X, PHYS F211X, PHYS F212X, PHYS F213X, WLF F104X	BIOL S103, BIOL S104, BIOL S111, BIOL S112, BIOL S115, BIOL S116, CHEM S103, CHEM S105, CHEM S105L, CHEM S106, CHEM S106L, ENVS S102, GEOL S104, PHYS S123, PHYS S124, PHYS S211, PHYS S212
Non-laboratory Courses		
ANTH A205, ANTH A211, ASTR A103, ASTR A104, BIOL A100, BIOL A102, BIOL A111, BIOL A112, BIOL A178, BIOL A200, CHEM A103, CHEM A104, CHEM A105, CHEM A106, ENVI A211, GEOG A111, GEOL A111, GEOL A115, GEOL A178, PHYS A101, PHYS A123, PHYS A124, PHYS A211, PHYS A212		ANTH S205, CHEM S100, CHEM S105, CHEM S106, GEOL S105, OCN S101, PHYS S165
Social Sciences - 6 Credits		
ANTH A101, ANTH A111, ANTH A200, ANTH A202, BA A151, CEL A292, COMM A255, COMM A280, ECON A101, ECON A102, ECON A120, ECON A210, ECON A256, EDEC A105, ENVI A212, GEOG A101, HNRS A292, INTL A101, JPC A104, JUST A110, JUST A175, JUST A251, LEGL A101, LSSS A111, PS A101, PS A102, PS A311, PSY A111, PSY A150, PSY A200, SOC A101, SOC A201, SOC A202, SWK A106, SWK A243, URS A121, WSGS A200, WSGS A201	ACCT F261X, ANS F111X, ANS F242X, ANTH F100X, ANTH F101X, ANTH F111X, ANTH F211X, BA F151X, BA F254X, BA F281X, ECE F104X, ECE F107X, ECE F210X, ECE F229X, ECON F101X, ECON F102X, ECON F111X, ECON F120X, ECON F235X, HIST F100X, HIST F102X, HIST F110X, HIST F122X, HIST F132X, HUMS F125X, HUMS F185X, JUST F110X, JUST F125X, JUST F251X, NRM F111X, PS F100X, PS F101X, PS F201X, PS F221X, PSY F111X, PSY F123X, RD F200X, SOC F101X, SOC F201X, SPRT F281X, SWK F103X, WGS F201X	ANS S101, ANTH S101, ANTH S202, ANTH S211, BA S151, BA S254, BHS S101, ECON S100, ECON S101, ECON S102, GEOG S101, HIST S105, HIST S106, HIST S131, HIST S132, PS S101, PS S102, PS S201, PS S251, PSY S111, PSY S250, SOC S101, SOC S201

Tier 1: Basic College-Level Skills

The UAA GERs begin with basic college-level skills enhancement in oral communication, quantitative, and written communication skills:

- Courses in oral and written communication develop intellectual and practical skills, building critical reading, thinking, and communication competencies (listening, speaking, reading, and writing) necessary to communicate effectively in a variety of contexts and formats needed for personal and professional success.
- Quantitative courses develop abilities to reason mathematically and analyze quantitative and qualitative data to reach sound conclusions for success in undergraduate study and professional life.
- Baccalaureate students are required to complete the 12 credits of basic college-level skills (oral, written and quantitative) before completing 60 total degree applicable credits. Students may select approved basic college-level skills, which may also fulfill requirements in their intended major. Faculty in English, communications and mathematics provide placement criteria (which may require the completion of preparatory coursework).

Tier 1 GERs require appropriate placement scores for course registration. Refer to the Course Placement (p. 27) section of this catalog for placement score requirements.

Category	Credits
Oral Communication Skills	3
Quantitative Skills	3
Written Communication Skills	6
Total	**12**

Oral Communication Skills

Oral communication skills courses increase the abilities of students to interact appropriately and effectively in a variety of contexts, including interpersonal, small group and public speaking settings.

- Students develop both their message creation and message interpretation skills in order to be more successful communicators.
- Students develop an awareness of the role of communication in a variety of human relationships—personal and professional.
- Students develop and implement effective and appropriate communication skills, including the ability to develop, organize, present and critically evaluate messages.
- Students analyze audiences and adapt to a variety of in-person communication settings.

Courses completed at UAA must be selected from the following Oral Communication courses:

Code	Title	Credits
Complete 3 credits of the following:		
COMM A111	Fundamentals of Oral Communication	3
COMM A235	Small Group Communication	3
COMM A237	Interpersonal Communication	3
COMM A241	Public Speaking	3

Quantitative Skills

Quantitative skills courses increase mathematical abilities.

- Students become more adept and competent producers and wiser consumers of the mathematical, statistical and computational analyses which dominate 21st-century decision-making.
- Students develop their algebraic, analytic and numeric skills; use them to solve applied problems; and correctly explain their mathematical reasoning.

Courses completed at UAA must be selected from the following Quantitative Skills courses[1]:

Code	Title	Credits
Complete 3 credits of the following:		
MATH A104	Technical Mathematics	3
MATH A113	Numbers and Society	3
MATH A115	Art of Mathematics	3
MATH A121	Applied College Algebra	3
MATH A151	College Algebra for Calculus	4
MATH A152	Trigonometry	3
MATH A155	Precalculus	5
MATH A221	Applied Calculus for Managerial and Social Sciences	3
MATH A251	Calculus I	4
MATH A251F	F.A.T. Calculus I	6
MATH A252	Calculus II	4
MATH A252F	F.A.T. Calculus II	6
MATH A253	Calculus III	4
STAT A200	Elementary Statistics	3
STAT A253	Applied Statistics for the Sciences	4

[1] *To determine the appropriate quantitative skills course, students must work with their academic advisor, as degree pathways differ. A minimum grade of C or higher may be required to fulfill prerequisites for the next MATH or STAT course in sequence or a degree requirement.*

Written Communication Skills

Written communication courses emphasize that writing is a recursive and frequently collaborative process of invention, drafting and revising as well as a primary element of active learning in literate cultures.

- Students practice methods for establishing credibility, reasoning critically and appealing to the emotions and values of their audience.
- Students write for a variety of purposes and audiences by employing methods of rhetorical and cultural analysis.
- Students develop the tools to read, think and write analytically about print and nonprint texts and to generate texts that engage their own perceptions while synthesizing the ideas of texts and scholars. Students demonstrate their ability to communicate effectively by selecting form and content that fits the situation; adhering to genre conventions; adapting their voice, tone, and level of formality to that situation; and controlling stylistic features such as sentence variety, syntax, grammar, usage, punctuation and spelling.

Courses completed at UAA must be selected from the following Written Communication courses:

Code	Title	Credits
Complete 6 credits of the following:		
WRTG A111	Writing Across Contexts	3
WRTG A211	Writing and the Humanities	3
WRTG A212	Writing and the Professions	3
WRTG A213	Writing and the Sciences	3
WRTG A214	Arguing Across Contexts	3

Tier 2: Disciplinary Areas

Courses in this tier examine Fine Arts, Humanities, Natural Sciences, and Social Sciences which provide a breadth of academic experience regarding human institutions, artistic and socio-cultural processes, and the physical and natural world.

- Courses in the Fine Arts interpret different systems of aesthetic representation within their historical and cultural contexts.
- Courses in the Humanities investigate the cultural, historical, literary, aesthetic, ethical and spiritual traditions that have shaped and continue to shape our worlds.
- Courses in Natural Sciences identify theoretical and descriptive approaches in which science advances the understanding of the natural and physical world. Lab courses in the Natural Sciences emphasize gathering data and analyzing hypotheses according to the scientific method.
- Courses in the Social Sciences explore the complexity of human behavior via empirical methodologies.to better understand interpersonal, institutional, and cultural dynamics.

Code	Title	Credits
Fine Arts		3
Humanities		6
Natural Sciences		7
Social Sciences		6
Total		**22**

Fine Arts

The fine arts (i.e. visual and performing) arts focus on the historical, aesthetic, critical and creative approaches to understanding the context and production of art as academic and creative disciplines as opposed to those that emphasize acquisition of skills.

- Students who complete the fine arts requirement should be able to identify and describe works of art by reference to media employed, historical context and style, and structural principles of design and composition.
- Students should be able to interpret the meaning or intent of works of art and assess their stylistic and cultural importance by reference to their historical significance, their relationship to earlier works and artists, and their overall impact of subsequent artistic work.

Courses completed at UAA must be selected from the following Fine Arts courses:

Code	Title	Credits
Complete 3 credits of the following:		
AKNS A215	Music of Alaska Natives and Indigenous Peoples of Northern Regions	3
AKNS A216	World Indigenous Music	3
AKNS A261	Alaska Native Art History	3
ART A160	Art Appreciation	3
ART A261	History of Western Art I	3
ART A262	History of Western Art II	3
DNCE A170	Dance Appreciation	3
MUS A100	History of Rock & Pop	3
MUS A110	Popular Songwriting	3
MUS A121	Music Appreciation	3
MUS A215	Music of Alaska Natives and Indigenous Peoples of Northern Regions	3
MUS A216	World Indigenous Music	3
MUS A224	History of Jazz	3
THR A111	Theatre Appreciation	3
THR A121	Fundamentals of Acting	3
THR A215	Contemporary Plays	3

Humanities

The humanities courses examine the characteristics of realities, the purpose of human existence, the properties of knowledge and the qualities of sound reasoning, eloquent communication, and creative expression, studying the problems of judicious conduct in personal, social and political life. They also consider the qualities of the divine, the sacred and the mysterious. In these tasks, the humanities courses reflect upon the world's heritage of the arts, history, languages, literature, religion and philosophy.

- Students who complete a content-oriented course in the humanities should be able to identify texts or objects, place them in the historical context of the discipline, articulate the central problems they address and provide reasoned assessments of their significance.
- Students who complete a skills-oriented humanities course in logic should be able to identify the premises and conclusions of written arguments, evaluate their cogency, and recognize common fallacies. They should also be able to employ formal techniques to determine the validity of deductive arguments and evaluate the adequacy of evidence according to appropriate inductive standards.
- Students who complete a humanities course in a language should additionally demonstrate proficiency in listening, speaking, reading, and writing in the target language.

Courses completed at UAA must be selected from the following Humanities courses:

Code	Title	Credits
Complete 6 credits from the following:		
AKNS A101A	Elementary Central Yup'ik Language I	4
AKNS A101B	Elementary Tlingit Language I	4
AKNS A101C	Elementary Alaska Native Language I	4
AKNS A101D	Elementary Inupiaq Language I	4
AKNS A101E	Elementary Alutiiq Language I	4
AKNS A101F	Elementary Dena'ina Language I	4
AKNS A101H	Elementary Ahtna Language I	4
AKNS A101I	Elementary Unangam Tunuu I	4
AKNS A102A	Elementary Central Yup'ik Language II	4
AKNS A102B	Elementary Tlingit Language II	4
AKNS A102C	Elementary Alaska Native Language II	4
AKNS A102D	Elementary Inupiaq Language II	4
AKNS A102E	Elementary Alutiiq Language II	4

AKNS A102F	Elementary Dena'ina Language II	4
AKNS A102H	Elementary Ahtna Language II	4
AKNS A102I	Elementary Unangam Tunuu II	4
AKNS A114A	Central Yup'ik Reading and Writing	3
AKNS A114B	Tlingit Reading and Writing	3
AKNS A114E	Alutiiq and Sugpiaq Reading and Writing	3
AKNS A114F	Dena'ina Reading and Writing	4
AKNS A114H	Ahtna Reading and Writing	3
AKNS A114I	Unangam Tunuu Reading & Writing	3
AKNS A201	Alaska Native Perspectives	3
AKNS A230	Oral Traditions of Alaska Native People	3
AKNS A240A	Alaska Native Cultural Orientation: Yup'ik	3
AKNS A240F	Alaska Native Cultural Orientation: Dena'ina	3
AKNS A240H	Alaska Native Cultural Orientation: Ahtna	3
AKNS A240I	Alaska Native Cultural Orientation: Unangax#	3
ASL A101	Elementary American Sign Language I	4
ASL A102	Elementary American Sign Language II	4
ASL A201	Intermediate American Sign Language I	4
ASL A202	Intermediate American Sign Language II	4
ENGL A120	Reasoning, Thinking, and Discourse	3
ENGL A121	Introduction to Literature	3
ENGL A200	Global Literature and Culture	3
ENGL A203	British Narratives of Power and Global Change	3
ENGL A205	Literary Narratives that Shaped the United States	3
ENGL A245	Alaska Native Literatures	3
FREN A101	Elementary French I	4
FREN A102	Elementary French II	4
FREN A201	Intermediate French I	4
FREN A202	Intermediate French II	4
GER A101	Elementary German I	4
GER A102	Elementary German II	4
GER A201	Intermediate German I	4
GER A202	Intermediate German II	4
HIST A101	Western Civilization Before 1650	3
HIST A102	Europe in the Modern World	3
HIST A104	History Matters!	3
HIST A121	The Making of East Asian Civilization	3
HIST A122	East Asia in the Modern World	3
HIST A131	History of the United States I	3
HIST A132	History of the United States II	3
HNRS A192	Honors Seminar: Enduring Books	3
HUM A211	Introduction to Humanities I	3
HUM A212	Introduction to Humanities II	3
JPN A101	Elementary Japanese I	4
JPN A102	Elementary Japanese II	4
JPN A201	Intermediate Japanese I	4
JPN A202	Intermediate Japanese II	4
LING A101	How Language Works	3

PHIL A101	Introduction to Logic	3
PHIL A103	Introduction to World Philosophies and Religions	3
PHIL A201	Introduction to Philosophy	3
PHIL A211	Ancient and Medieval Philosophy	3
PHIL A212	Early Modern Philosophy	3
PHIL A301	Ethics	3
PHIL A305	Professional Ethics	3
PS A331	Political Philosophy	3
PS A332	History of Political Philosophy I: Classical	3
PS A333	History of Political Philosophy II: Modern	3
RUSS A101	Elementary Russian I	4
RUSS A102	Elementary Russian II	4
RUSS A201	Intermediate Russian I	4
RUSS A202	Intermediate Russian II	4
SPAN A101	Elementary Spanish I	4
SPAN A102	Elementary Spanish II	4
SPAN A201	Intermediate Spanish I	4
SPAN A202	Intermediate Spanish II	4
THR A211	Theatre History to 1700	3
THR A212	Theatre History Since 1700	3

Natural Sciences

(must include a laboratory course)

The natural sciences focus on gaining an understanding of the matter, events and processes that form and sustain our universe. Methods of scientific inquiry are diverse, but all aim to formulate general principles that explain observations and predict future events or behaviors within their disciplines.

- Students completing their natural sciences requirement will be able to apply the scientific method by formulating questions or problems, proposing hypothetical answers or solutions, testing those hypotheses, and reaching supportable conclusions.
- Students demonstrate an understanding of the fundamentals of one or more scientific disciplines, a knowledge of the discoveries and advances made within that discipline, and the impact of scientific information in sculpting thought and in providing the foundations for the technology in use at various times in history.

Laboratory courses illustrate how scientists develop, test and challenge scientific theories, providing an appreciation for the process and problems involved in the advancement of scientific knowledge.

- Students will demonstrate the ability to work with the tools and in the settings encountered by professionals in the discipline.
- Students will critically observe materials, events or processes, and accurately record and analyze their observations.

Courses completed at UAA must be selected from the following Natural Sciences courses:

Code	Title	Credits
Complete 7 credits of the following: (must include a laboratory course)		
ANTH A205 & A205L	Biological Anthropology and Biological Anthropology Laboratory	4
ANTH A211 & A211L	Archaeology and Archaeology Laboratory	4
ASTR A103 & A103L	Solar System Astronomy and Solar System Astronomy Laboratory	4
ASTR A104 & A104L	Stars, Galaxies and Cosmology and Stars, Galaxies and Cosmology Laboratory	4
BIOL A100	Human Biology	3

BIOL A102 & BIOL A103	Introductory Biology and Introductory Biology Laboratory	4
BIOL A108	Principles and Methods in Biology	6
BIOL A111 & A111L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Lab	4
BIOL A112 & A112L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Lab	4
BIOL A178	Introduction to Oceanography	3
BIOL A179	Introduction to Oceanography Laboratory	1
BIOL A200	Introduction to Complexity	3
CHEM A103 & A103L	Introduction to General Chemistry and Introduction to General Chemistry Laboratory	4
CHEM A104 & A104L	Introduction to Organic and Biochemistry and Introduction to Organic and Biochemistry Laboratory	4
CHEM A105 & A105L	General Chemistry I and General Chemistry I Laboratory	4
CHEM A106 & A106L	General Chemistry II and General Chemistry II Laboratory	4
ENVI A211	Environmental Science: Systems and Processes	3
GEOG A111 & A111L	Discovering Alaska and Earth's Physical Geography: From Weather to Glaciers and Discovering Alaska and Earth's Physical Geography: From Weather to Glaciers Laboratory	4
GEOL A111 & A111L	Planet Earth and Planet Earth Laboratory	4
GEOL A115 & A115L	Dangerous Earth and Dangerous Earth Laboratory	4
GEOL A178	Introduction to Oceanography	3
GEOL A221	Journey Through Time	4
PHYS A101	Physics of Sports	3
PHYS A123 & A123L	College Physics I and College Physics I Laboratory	4
PHYS A124 & A124L	College Physics II and College Physics II Laboratory	4
PHYS A211 & A211L	General Physics I and General Physics I Laboratory	4
PHYS A212 & A212L	General Physics II and General Physics II Laboratory	4

Social Sciences

The social sciences constitute the various fields of study concerned with society, social interaction and human behavior. Each of the specific disciplines in the social sciences is a historically recognized area of inquiry with a scientifically grounded methodology, yet they all share the goal of understanding society, its institutions, and its people and their behavior.

- Students describe the discipline studied and discuss the key principles or themes that unify it.
- Students describe and contrast key scientific theories and theoretical approaches in a discipline and the ways in which these theories structure social scientists’ thinking and research
- Students demonstrate the ability to think critically about how society works and how social realities are created by diverse social processes and cultural practices.
- Students describe the wide range of social science data and the importance of using empiricism, both qualitative and quantitative, in making claims about the social world and in setting evidence-based social policy.

- Students explain and use basic social science methods and summarize the assumptions behind and the limitations of inductive or deductive approaches that might include the formulation of research questions and hypotheses; data collection and analysis; and testing, verifying and rejecting hypotheses.

Courses completed at UAA must be selected from the following Social Sciences courses:

Code	Title	Credits
Complete 6 credits of the following:		
ANTH A101	Introduction to Anthropology	3
ANTH A111	Ancient Civilizations	3
ANTH A200	Alaska Native Cultures	3
ANTH A202	Cultural Anthropology	3
BA A151	Business Foundations	3
CEL A292	Introduction to Civic Engagement	3
COMM A255	Organizational Communication	3
COMM A280	Communication Theories in Action	3
ECON A101	Principles of Microeconomics	3
ECON A102	Principles of Macroeconomics	3
ECON A120	Introduction to Economic Analysis	3
ECON A210	Environmental Economics and Policy	3
ECON A256	Introduction to Behavioral Economics	3
EDEC A105	Introduction to the Field of Early Childhood Education	3
ENVI A212	Living on Earth: Introduction to Environmental Studies	3
GEOG A101	Local Places/Global Regions: An Introduction to Geography	3
HNRS A292	Honors Seminar in Social Science	3
INTL A101	Local Places/Global Regions: An Introduction to Geography	3
JPC A104	Media Literacy	3
JUST A110	Introduction to Criminal Justice	3
JUST A175	Introduction to Juvenile Justice	3
JUST A251	Theories of Crime and Criminal Offending	3
LEGL A101	Introduction to Law	3
LSSS A111	Cultural Foundations of Human Behavior	3
PS A101	Introduction to American Government	3
PS A102	Introduction to Political Science	3
PS A311	Comparative Politics	3
PSY A111	Introduction to Psychology	3
PSY A150	Lifespan Development	3
PSY A200	Introduction to Behavior Analysis	3
SOC A101	Introduction to Sociology	3
SOC A201	Social Problems and Solutions	3
SOC A202	Social Institutions	3
SWK A106	Introduction to Social Welfare	3
SWK A243	Diversity, Equity and Inclusion through Community Service Learning	3
URS A121	Methods of Inquiry	3
WSGS A200	Introduction to Women's and Gender Studies	3
WSGS A201	Introduction to Gender and Sexuality Studies	3

Alaska Native-Themed GER

The Alaska Native-Themed GER addresses UAA's mission to "transform lives through teaching, research, community engagement and creative expression in a welcoming environment." It also recognizes UAA's unique location on the ancestral homelands of the Dena’ina, Ahtna, Alutiiq/Sugpiaq, and Eyak/dAXunhyuu Peoples, and the 20 Alaska Native languages that are now official languages of the State of Alaska.

Students are required to complete a minimum of three credits of Alaska Native-Themed GER coursework from the following list to graduate with an Associate of Arts, Associate of Science, or a baccalaureate degree.

An AKNT course can meet other GER or program requirements. However, the same course cannot meet both the AKNT requirement and the Intercultural Fluency requirement.

Student Learning Outcomes

After completing the Alaska Native-Themed GER, UAA students shall be able to:

- Recognize Alaska Native/Indigenous diversity by tribe, language and region.
- Identify and articulate the complexity and sophistication of Alaska Native/Indigenous knowledge systems and social institutions and the arts in historical and contemporary contexts.
- Articulate the social and legal development of Alaska Native peoples, such as ANCSA.
- Identify the historical forces of colonization and their impact upon Alaska Native regions, communities, and individuals.

Code	Title	Credits
AKNS A101A	Elementary Central Yup'ik Language I	4
AKNS A101B	Elementary Tlingit Language I	4
AKNS A101C	Elementary Alaska Native Language I	4
AKNS A101D	Elementary Inupiaq Language I	4
AKNS A101E	Elementary Alutiiq Language I	4
AKNS A101F	Elementary Dena'ina Language I	4
AKNS A101H	Elementary Ahtna Language I	4
AKNS A101I	Elementary Unangam Tunuu I	4
AKNS A102A	Elementary Central Yup'ik Language II	4
AKNS A102B	Elementary Tlingit Language II	4
AKNS A102C	Elementary Alaska Native Language II	4
AKNS A102D	Elementary Inupiaq Language II	4
AKNS A102E	Elementary Alutiiq Language II	4
AKNS A102F	Elementary Dena'ina Language II	4
AKNS A102H	Elementary Ahtna Language II	4
AKNS A102I	Elementary Unangam Tunuu II	4
AKNS A114A	Central Yup'ik Reading and Writing	3
AKNS A114B	Tlingit Reading and Writing	3
AKNS A114C	Alaska Native Language Reading and Writing	3
AKNS A114E	Alutiiq and Sugpiaq Reading and Writing	3
AKNS A114F	Dena'ina Reading and Writing	4
AKNS A114H	Ahtna Reading and Writing	3
AKNS A114I	Unangam Tunuu Reading & Writing	3
AKNS A182	Grant Writing for Alaska Native Communities	1
AKNS A190	Selected Topics: Alaska Native Cultural Skills	1-3
AKNS A201	Alaska Native Perspectives	3
AKNS A215	Music of Alaska Natives and Indigenous Peoples of Northern Regions	3
AKNS A216	World Indigenous Music	3
AKNS A218A	Alaska Native Drummaking Techniques: Athabascan and Southeast Style	3
AKNS A218B	Alaska Native Drummaking Techniques: Inupiaq and Yup'ik Style	3

AKNS A230	Oral Traditions of Alaska Native People	3
AKNS A240	Alaska Native Cultural Orientation - Alutiiq/Sugpiaq	3
AKNS A240A	Alaska Native Cultural Orientation: Yup'ik	3
AKNS A240F	Alaska Native Cultural Orientation: Dena'ina	3
AKNS A240H	Alaska Native Cultural Orientation: Ahtna	3
AKNS A240I	Alaska Native Cultural Orientation: Unangax#	3
AKNS A261	Alaska Native Art History	3
AKNS A290	Topics in Alaska Native Studies	1-3
AKNS A292A	Alaska Native Language Apprenticeship	1-3
AKNS A292B	Alaska Native Language Conversational Fluency Intensive	1-3
AKNS A313	Tribes, Nations and Peoples	3
AKNS A346	Alaska Native Politics	3
AKNS A356	Yup'ik Music and Dance Ensemble	3
AKNS A390	Intermediate Topics in Alaska Native Studies	1-3
AKNS A421	Indigenous Language Curriculum Design & Instruction	3
AKNS A461	Decolonizing Methodologies	3
AKNS A492	Cultural Knowledge of Native Elders	3
AKNS A495A	Indigenous Language Instructor Internship	3
ANTH A200	Alaska Native Cultures	3
ANTH A390A	Arctic and Subarctic Cultures	3
ANTH A461	Decolonizing Methodologies	3
ANTH A490D	Topics in the Contemporary North	3
ART A270	Beginning Alaska Native Art	3
ART A370	Intermediate Alaska Native Art	3
ART A470	Advanced Alaska Native Art	3
BA A201	Introduction to Alaska Native Business	1
BA A202	Alaska Native Organizations	3
BA A290A	Alaska Native Business Practices	1-3
BA A401	Alaska Native Corporation Business Management	3
BA A402	Alaska Native Corporation Leadership	3
BA A403	Inside the Boardroom of Alaska Native Organizations	1
BA A490B	Selected Topics in Alaska Native Corporations	1-3
DN A155	Survey of Alaska Native Nutrition	3
DN A325	Food & Nutrition in Modern Alaska	3
EDFN A478	Issues in Alaska Native Education, K-12	3
ENGL A245	Alaska Native Literatures	3
ENGL A490C	Topics in Native Literatures	3
HIST A341	History of Alaska	3
HIST A346	History of Native Peoples of United States and Canada	3
HUMS A254	Finding My Way Home: Place Identity & Historical Trauma	3
JUST A355	Rural Justice	3
LEGL A485	Tribal Courts and Alaska Native Rights	3
MUS A215	Music of Alaska Natives and Indigenous Peoples of Northern Regions	3
MUS A216	World Indigenous Music	3
MUS A218A	Alaska Native Drummaking Techniques: Athabascan and Southeast Style	3
MUS A218B	Alaska Native Drummaking Techniques: Inupiaq and Yup'ik Style	3
MUS A356	Yup'ik Music and Dance Ensemble	3
NS A430	Rural Health Care	3

PS A313	Tribes, Nations and Peoples	3
PS A345	Alaska Government and Politics	3
PS A346	Alaska Native Politics	3
PSY A465	Cross-Cultural Psychology	3
SWK A243	Diversity, Equity and Inclusion through Community Service Learning	3

Intercultural Fluency GER

- The Intercultural Fluency GER addresses the knowledge and skills necessary to promote effective and appropriate interaction in a variety of cultural contexts, particularly in terms of the communities we serve.
- Students are required to complete a minimum of three credits of Intercultural Fluency GER coursework from the following list to graduate with an Associate of Arts, Associate of Science, or a baccalaureate degree.
- An Intercultural Fluency course can meet other GER or program requirements. However, the same course cannot meet both the AKNT requirement and the Intercultural Fluency requirement.

Student Learning Outcomes

After completing the Intercultural Fluency GER, UAA students shall be able to:

- Demonstrate an understanding of the complex elements important to their own culture and/or socially defined groups in relation to their history, values, beliefs, and/or practices.
- Analyze differences among cultures and socially-defined groups in relation to their history, values, beliefs, and/or practices.
- Evaluate power, privilege, and equity with regards to their own culture and socially defined group compared with others.
- Apply knowledge and skills from a particular academic discipline as it relates to issues of cultural specificity and diversity.

Code	Title	Credits
AKNS A101A	Elementary Central Yup'ik Language I	4
AKNS A101B	Elementary Tlingit Language I	4
AKNS A101C	Elementary Alaska Native Language I	4
AKNS A101D	Elementary Inupiaq Language I	4
AKNS A101E	Elementary Alutiiq Language I	4
AKNS A101F	Elementary Dena'ina Language I	4
AKNS A101H	Elementary Ahtna Language I	4
AKNS A101I	Elementary Unangam Tunuu I	4
AKNS A102A	Elementary Central Yup'ik Language II	4
AKNS A102B	Elementary Tlingit Language II	4
AKNS A102C	Elementary Alaska Native Language II	4
AKNS A102D	Elementary Inupiaq Language II	4
AKNS A102E	Elementary Alutiiq Language II	4
AKNS A102F	Elementary Dena'ina Language II	4
AKNS A102H	Elementary Ahtna Language II	4
AKNS A102I	Elementary Unangam Tunuu II	4
AKNS A114A	Central Yup'ik Reading and Writing	3
AKNS A114B	Tlingit Reading and Writing	3
AKNS A114C	Alaska Native Language Reading and Writing	3
AKNS A114E	Alutiiq and Sugpiaq Reading and Writing	3
AKNS A114F	Dena'ina Reading and Writing	4
AKNS A114H	Ahtna Reading and Writing	3
AKNS A114I	Unangam Tunuu Reading & Writing	3
AKNS A182	Grant Writing for Alaska Native Communities	1
AKNS A190	Selected Topics: Alaska Native Cultural Skills	1-3
AKNS A201	Alaska Native Perspectives	3

AKNS A215	Music of Alaska Natives and Indigenous Peoples of Northern Regions	3
AKNS A216	World Indigenous Music	3
AKNS A240A	Alaska Native Cultural Orientation: Yup'ik	3
AKNS A240F	Alaska Native Cultural Orientation: Dena'ina	3
AKNS A240H	Alaska Native Cultural Orientation: Ahtna	3
AKNS A240I	Alaska Native Cultural Orientation: Unangax#	3
AKNS A292A	Alaska Native Language Apprenticeship	1-3
AKNS A292B	Alaska Native Language Conversational Fluency Intensive	1-3
AKNS A390	Intermediate Topics in Alaska Native Studies	1-3
AKNS A421	Indigenous Language Curriculum Design & Instruction	3
AKNS A492	Cultural Knowledge of Native Elders	3
AKNS A495A	Indigenous Language Instructor Internship	3
ANTH A101	Introduction to Anthropology	3
ANTH A111	Ancient Civilizations	3
ANTH A200	Alaska Native Cultures	3
ANTH A202	Cultural Anthropology	3
ANTH A205	Biological Anthropology	3
ANTH A205L	Biological Anthropology Laboratory	1
ANTH A210	Linguistic Anthropology	3
ANTH A211	Archaeology	3
ANTH A452	Culture and Human Biodiversity	3
ANTH A454	Culture and Ecology	3
ANTH A455	Culture and Health	3
ANTH A464	Culture and Globalization	3
ART A160	Art Appreciation	3
ART A261	History of Western Art I	3
ART A262	History of Western Art II	3
ASL A101	Elementary American Sign Language I	4
ASL A102	Elementary American Sign Language II	4
ASL A201	Intermediate American Sign Language I	4
ASL A202	Intermediate American Sign Language II	4
CEL A292	Introduction to Civic Engagement	3
COMM A305	Intercultural Communication	3
COMM A345	Communication and Gender	3
DN A415	Community Nutrition	3
DNCE A170	Dance Appreciation	3
EDFN A304	Comparative Education	3
ENGL A200	Global Literature and Culture	3
ENGL A203	British Narratives of Power and Global Change	3
ENGL A205	Literary Narratives that Shaped the United States	3
ENGL A245	Alaska Native Literatures	3
FREN A201	Intermediate French I	4
FREN A202	Intermediate French II	4
GEOG A101	Local Places/Global Regions: An Introduction to Geography	3
GER A201	Intermediate German I	4
GER A202	Intermediate German II	4
HIST A101	Western Civilization Before 1650	3
HIST A102	Europe in the Modern World	3

HIST A121	The Making of East Asian Civilization	3
HIST A122	East Asia in the Modern World	3
HIST A131	History of the United States I	3
HIST A132	History of the United States II	3
HIST A325	Northeast Asia in 21st Century	3
HIST A341	History of Alaska	3
HIST A390	Themes in World History	3
HIST A427	Post-Soviet Culture and Society	3
HUM A211	Introduction to Humanities I	3
HUM A212	Introduction to Humanities II	3
HUMS A321	Diversity Issues in Human Services Practice	3
INTL A101	Local Places/Global Regions: An Introduction to Geography	3
INTL A325	Northeast Asia in 21st Century	3
JPN A201	Intermediate Japanese I	4
JPN A202	Intermediate Japanese II	4
JUST A175	Introduction to Juvenile Justice	3
JUST A460	Justice in Crisis	3
KIN A384	Cultural and Psychological Aspects of Health and Physical Activity	3
LANG A390	Selected Topics in Crosscultural Explorations and Perspectives	3
LEGL A312	Race, Equal Protection and the Law	3
LEGL A443	Civil Liberties	3
LEGL A485	Tribal Courts and Alaska Native Rights	3
LSSS A111	Cultural Foundations of Human Behavior	3
MUS A215	Music of Alaska Natives and Indigenous Peoples of Northern Regions	3
MUS A216	World Indigenous Music	3
NS A411	Population Health Integrative Capstone	3
PHIL A211	Ancient and Medieval Philosophy	3
PHIL A212	Early Modern Philosophy	3
PHIL A301	Ethics	3
PHIL A305	Professional Ethics	3
PHIL A313	Eastern Philosophy and Religion	3
PHIL A314	Abrahamic Religions	3
PHIL A490A	Selected Topics in Ethics, Community, and Society	3
PS A325	Northeast Asia in 21st Century	3
RUSS A201	Intermediate Russian I	4
RUSS A202	Intermediate Russian II	4
SOC A101	Introduction to Sociology	3
SOC A201	Social Problems and Solutions	3
SOC A202	Social Institutions	3
SOC A490A	Senior Sociology Seminar	3
SPAN A201	Intermediate Spanish I	4
SPAN A202	Intermediate Spanish II	4
SWK A106	Introduction to Social Welfare	3
SWK A243	Diversity, Equity and Inclusion through Community Service Learning	3
THR A492	Seminar in Theatre or Dance	3
WSGS A200	Introduction to Women's and Gender Studies	3
WSGS A201	Introduction to Gender and Sexuality Studies	3

Tier 3: Integrative Capstone

Integrative Capstone courses culminate the GER experience by synthesizing material across GER domains with the blending of basic college-level skills (Tier 1) and/or disciplinary areas (Tier 2), establishing a foundation for life-long learning.

- Synthesize disciplinary knowledge, creative thinking, critical judgment, and reflection in a variety of contexts to assess complex issues.
- Identify how personal, structural, and cultural factors produce diverse experiences, and perspectives in society and apply effective and appropriate strategies to interact in local and global communities.

The 37-credit General Education Requirement, including the 3-credit integrative capstone, is required for graduation after September 2008 for baccalaureate students who were admitted to major or pre-major status under the 2005-2006 UAA Catalog or later catalogs. (For specifics on catalog year requirements, see Academic Standards and Regulations (p. 16).)

Courses completed at UAA must be selected from the following Integrative Capstone courses:

Code	Title	Credits
Complete 3 credits from the following:		
ACCT A452	Auditing	3
ANTH A452	Culture and Human Biodiversity	3
ANTH A454	Culture and Ecology	3
ANTH A455	Culture and Health	3
ANTH A464	Culture and Globalization	3
ART A491	Senior Seminar	3
ATA A492	Air Transportation System Seminar	3
BA A376	Management Information Systems	3
BIOL A452	Human Genome	3
BIOL A456	Nonlinear Dynamics and Chaos	3
BIOL A473	Conservation Biology	3
BIOL A474	Ecotoxicology	3
BIOL A481	Marine Biology	3
CE A438	Design of Civil Engineering Systems	3
CHEM A441	Principles of Biochemistry I	3
CHEM A456	Nonlinear Dynamics and Chaos	3
CHEM A474	Ecotoxicology	3
CM A450	Construction Management Professional Practice	3
COMM A412	Persuasion	3
CSCE A470	Computer Science and Engineering Capstone Project	3
DH A424	Community Dental Health II	3
DN A415	Community Nutrition	3
DNCE A370	Interdisciplinary Dance Studies: Issues and Methods	3
ECON A492	Seminar in Economic Research	3
EDFN A300	Philosophical and Social Context of American Education	3
EDFN A304	Comparative Education	3
EE A438	Design of Electrical Engineering Systems	3
ENGL A467	The History and Future of Global English	3
ENGL A478	Public Science Writing	3
ENGL A479	Advanced Studies in Literature	3
GEO A460	Geomatics Capstone Project	3
GEOG A390A	Selected Topics in Global Geography	3
GEOG A470	Environmental Policy and Regulation in Alaska	3
GEOL A361	Earth Resources and Society	3
GEOL A468	Geomicrobiology	3

HA A495	Hospitality Administration Internship	6
HIST A325	Northeast Asia in 21st Century	3
HIST A330	Russia in East Asia	3
HIST A341	History of Alaska	3
HIST A390	Themes in World History	3
HIST A427	Post-Soviet Culture and Society	3
HNRS A390	Selected Topics Honors Seminar	3
HS A492	Senior Seminar: Contemporary Health Policy	3
HUMS A496	Human Services Integrative Capstone	3
INTL A325	Northeast Asia in 21st Century	3
JPC A403	Communications and Media Research	3
JPC A492	JPC Capstone Seminar	3
JUST A430	Homelessness and Crime	3
JUST A432	Crime Analysis and Mapping	3
JUST A434	Police-Community Relations	3
JUST A460	Justice in Crisis	3
JUST A463	Biosocial Criminology	3
KIN A384	Cultural and Psychological Aspects of Health and Physical Activity	3
LANG A390	Selected Topics in Crosscultural Explorations and Perspectives	3
LEGL A443	Civil Liberties	3
LEGL A449	Jurisprudence and Legal Theory	3
LEGL A485	Tribal Courts and Alaska Native Rights	3
LING A467	The History and Future of Global English	3
MATH A420	Historical Mathematics	3
MBIO A468	Geomicrobiology	3
ME A438	Design of Mechanical Engineering Systems	3
MEDT A302	Clinical Laboratory Education and Management	4
MUS A331	Form and Analysis	3
NS A411	Population Health Integrative Capstone	3
NS A475	Nursing Integrative Capstone	3
OSH A460	Economic Value of Safety	3
PHIL A490A	Selected Topics in Ethics, Community, and Society	3
PHYS A456	Nonlinear Dynamics and Chaos	3
PM A486	Project Management Capstone	3
PS A325	Northeast Asia in 21st Century	3
PS A492	Senior Seminar in Politics	3
PSY A370	Behavioral Neuroscience	3
SOC A490A	Senior Sociology Seminar	3
STAT A308	Intermediate Statistics for the Sciences	3
SWK A439	Social Welfare: Policies and Issues	3
TECH A453	Capstone Project	3
THR A492	Seminar in Theatre or Dance	3

Post-Baccalaureate Certificates

Definition

Post-baccalaureate certificates present a cohesive sequence of related courses designed to provide continuing education past the baccalaureate level. Upon completion of a post-baccalaureate certificate, students will have acquired an area of specialization or an interdisciplinary perspective, or will have completed requirements for professional certifications awarded by agencies outside the university. Post-baccalaureate certificates are designed with a majority of undergraduate coursework.

General University Requirements

At a minimum, in order to earn a Post-Baccalaureate certificate:

1. Be admitted to the program.
2. Complete a minimum of 12 credits at the 100-level or above beyond their previous Baccalaureate degree for the Post-Baccalaureate certificate.
3. Complete at least 30% of the total credits required for the Post-Baccalaureate certificate at the upper-division (300-400) or graduate (600) level.
4. Complete at least 25% of the total credits required for the Post-Baccalaureate certificate in residence.
5. Complete all major requirements.
6. Earn a cumulative GPA of at least 2.00 (C) at UAA.
7. Earn a cumulative GPA of at least 2.00 (C) in all major requirements.
8. Complete all certificate requirements within five years of formal admission.
    a. Students may elect to graduate under the requirements of any catalog in effect during their formal admission as a certificate-seeking student.

See the program specific page for all requirements.

Additional Policies for Post-Baccalaureate Certificates

Additional Certificates

Students who have received a post-baccalaureate certificate from an institutionally accredited college or university may earn another post-baccalaureate certificate by completing at least 12 resident credits after the awarding of the previous certificate. The student must meet all General University Requirements for Post-Baccalaureate Certificates, and college and program requirements. Fulfilling all university, college and program requirements may require more than the minimum 12 additional resident credits. If the 12 additional credits and other requirements have been earned for each additional post-baccalaureate certificate, two or more post-baccalaureate certificates may be awarded simultaneously.

Change of Certificate

Students who wish to change certificate programs must formally apply for admission to the new certificate program through the Office of Admissions and pay the appropriate fee. This applies both to changes between colleges and to different certificates within the same college. Students will be expected to meet all admission and program requirements of the new major or emphasis area.

Concurrent Certificates

Students may pursue concurrent post-baccalaureate certificates as long as they have formally applied and been accepted to each program through the Office of Admissions.

Reinstatement to Post-Baccalaureate Certificate-Seeking Status

Students who have been removed from post-baccalaureate certificate-seeking status for failing to maintain good standing must reapply for a post-baccalaureate certificate program and pay the appropriate fee.

College of Arts and Sciences

College of Arts and Sciences (https://www.uaa.alaska.edu/academics/college-of-arts-and-sciences/)

Department of Alaska Native Studies (http://www.uaa.alaska.edu/native/)
Social Sciences Building (SSB), Room 378
(907) 786-6135

Department of Anthropology and Geography (https://www.uaa.alaska.edu/academics/college-of-arts-and-sciences/departments/anthropology-and-geography/)
Beatrice McDonald Hall (BMH)
(907) 786-1298

Department of Art (https://www.uaa.alaska.edu/academics/college-of-arts-and-sciences/departments/art/)
Fine Arts Building (ARTS), Room 302
(907) 786-1766

Department of Biological Sciences (https://www.uaa.alaska.edu/academics/college-of-arts-and-sciences/departments/biological-sciences/)
ConocoPhillips Integrated Science Building (CPSB), Room 101
(907) 786-1298

Department of Chemistry (https://www.uaa.alaska.edu/academics/college-of-arts-and-sciences/departments/chemistry/)
ConocoPhillips Integrated Science Building (CPSB), Room 101
(907) 786-1298

Department of English (https://www.uaa.alaska.edu/academics/college-of-arts-and-sciences/departments/english/)
Administration/Humanities Building (ADM), Room 101
(907)786-4355, cas.humanities@alaska.edu

Department of Geological Sciences (https://www.uaa.alaska.edu/academics/college-of-arts-and-sciences/departments/geology/)
ConocoPhillips Integrated Science Building (CPSB), Room 101
(907) 786-1298, uaa_geosciences@alaska.edu

Department of History (http://www.uaa.alaska.edu/history/)

Administration/Humanities Building (ADM), Room 101
(907) 786-4355

Department of Interdisciplinary Studies (https://www.uaa.alaska.edu/academics/college-of-arts-and-sciences/departments/interdisciplinary-studies/)
(907) 786-1707

Department of Journalism and Public Communications (https://www.uaa.alaska.edu/academics/college-of-arts-and-sciences/departments/journalism-and-communication/)
Professional Studies Building (PSB), Room 203
(907) 786-1298

Department of Languages (https://www.uaa.alaska.edu/academics/college-of-arts-and-sciences/departments/languages/)
Administration/Humanities Building (ADM), Room 101
(907)786-4355

Department of Mathematics and Statistics (https://www.uaa.alaska.edu/academics/college-of-arts-and-sciences/departments/mathematics-and-statistics/)
Social Sciences Building (SSB), Room 154
(907) 786-1298

Department of Music (https://www.uaa.alaska.edu/academics/college-of-arts-and-sciences/departments/music/)
Fine Arts Building (ARTS), Room 302
(907) 786-1766

Department of Philosophy (https://www.uaa.alaska.edu/academics/college-of-arts-and-sciences/departments/philosophy/)
Administration/Humanities Building (ADM), Room 101
(907) 786-4355

Department of Physics and Astronomy (https://www.uaa.alaska.edu/academics/college-of-arts-and-sciences/departments/physics-and-astronomy/)
ConocoPhillips Integrated Science Building (CPSB), Room 101
(907) 786-1298

Department of Political Science (https://www.uaa.alaska.edu/academics/college-of-arts-and-sciences/departments/political-science/)
Social Sciences Building (SSB), 3rd Floor
(907) 786-1298

Department of Psychology (https://www.uaa.alaska.edu/academics/college-of-arts-and-sciences/departments/psychology/)
(907) 786-1640

Department of Theatre and Dance (https://www.uaa.alaska.edu/academics/college-of-arts-and-sciences/departments/theatre-and-dance/)

Fine Arts Building (ARTS), Room 302
(907) 786-1766

Occupational Endorsement Certificate in Ahtna Language

This program is delivered only through Kenai Peninsula College.

The Occupational Endorsement Certificate (OEC) in Ahtna Language prepares students for learning knowledge, resources, and skills appropriate for a variety of entry-level jobs that use Ahtna Dene language. Students who earn this OEC will be able to certify a level of low intermediate speech ability according to the guidelines of the Ahtna Dene Proficiency Guidelines scale through completion of an oral proficiency assessment. The style of Ahtna taught in this program is in Western and Central dialects.

Admission Requirements

- Complete the Admission Requirements for Occupational Endorsement Certificates (p. 46).

Graduation Requirements

- Complete the General University Requirements for Occupational Endorsement Certificates (p. 440).
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
AKNS A101H	Elementary Ahtna Language I	4
AKNS A102H	Elementary Ahtna Language II	4
AKNS A114H	Ahtna Reading and Writing	3
AKNS A292B	Alaska Native Language Conversational Fluency Intensive [1]	1-3
AKNS A240H	Alaska Native Cultural Orientation: Ahtna	3
Total		**15-17**

[1] *In Ahtna Language*

A minimum of 15 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with an Occupational Endorsement Certificate in Ahtna Language will be able to:

- Demonstrate low intermediate speaking proficiency, with conversational speaking skills as described in the Ahtna Dene Proficiency Guidelines standards.
- Read and comprehend basic Ahtna, including words and sentences pertaining to everyday topics, at a level comparable to their speaking proficiency.
- Locate and assess Ahtna Dene language resources and reference materials for diverse situations and proficiency levels.
- Demonstrate knowledge of Ahtna history, culture, arts, and issues in the Dena'ina region.

- Examine cross-cultural communication, cultural values, and working with Elders.

Undergraduate Certificate in Ahtna Language Instruction

The Undergraduate Certificate in Ahtna Language Instruction prepares students for applying knowledge, resources, and skills appropriate for a variety of entry-level jobs that use Ahtna Dene language and for teaching beginning Ahtna Language. Students who earn this certificate will be able to demonstrate a level of low intermediate speech ability and demonstrate proficiency in beginning Ahtna language instruction. The style of Ahtna taught in this program is Western and Central dialects.

Admission Requirements

- Complete the Admission Requirements for Undergraduate Certificates (p. 46).

Special Considerations

- Students who complete a field study placement may need to complete a background check if their site requires one.

Graduation Requirements

- Complete the General University Requirements for Undergraduate Certificates (p. 441).
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
AKNS A101H	Elementary Ahtna Language I	4
AKNS A102H	Elementary Ahtna Language II	4
AKNS A114H	Ahtna Reading and Writing	3
AKNS A240H	Alaska Native Cultural Orientation: Ahtna	3
AKNS A292B	Alaska Native Language Conversational Fluency Intensive [1]	1-3
AKNS A301	Introduction to Indigenous Language Revitalization	3
AKNS A395	Native Language Instructor Practicum	3
AKNS A421	Indigenous Language Curriculum Design & Instruction	3
AKNS A495A	Indigenous Language Instructor Internship	3
Total		**27-29**

[1] *Must be taken in Ahtna*

A minimum of 30 credits is required for the certificate.

Program Student Learning Outcomes

Students graduating with an Undergraduate Certificate in Ahtna Language Instruction will be able to:

- Demonstrate low intermediate speaking proficiency, with conversational speaking skills as described in the Ahtna Athabascan Proficiency Standards
- Read and comprehend basic Ahtna, including words and sentences pertaining to everyday topics, at a level comparable to their speaking proficiency on Ahtna Athabascan Proficiency Standards
- Locate and assess Ahtna Dene language resources and reference materials for diverse situations and proficiency levels.
- Demonstrate knowledge of Ahtna history, culture, arts, and issues in the Ahtna region.
- Examine cross-cultural communication, cultural values, and working with Elders.
- Write beginner lessons in Ahtna language
- Deliver beginner lessons in Ahtna language in classroom settings.

Associate of Arts in Alaska Native Studies

The Associate of Arts (AA) in Alaska Native Studies provides students with a critical and dynamic perspective on Alaska Native cultures, histories, politics and organizations. This AA provides a valuable opportunity for students interested in exploring their options in higher education and/or employment with an Alaska Native organization.

Admission Requirements

- Complete the Admission Requirements for Associate Degrees (p. 46).

Graduation Requirements

- Complete the General University Requirements for Associate Degrees (p. 441).
- Complete the following:
  - Complete 3 credits from the GER Oral Communication Skills list (p. 446).
  - Complete 6 credits from the GER Written Communication list (p. 446).
  - Complete 3 credits from the GER Quantitative Skills list (p. 446).
  - Complete 3 credits from the GER Fine Arts list (p. 448).
  - Complete 6 credits from the GER Humanities list (p. 448).
  - Complete 6 credits from the GER Social Sciences list (p. 448).
  - Complete 7 credits including one laboratory course (either combined or separate) from the GER Natural Sciences list (p. 448).
  - Complete 3 credits from the GER Alaska Native-Themed list. (p. 454) (This requirement will be fulfilled with the below.)

- Complete 3 credits from the GER Intercultural Fluency list (p.). (This requirement will be fulfilled with the below.)
- Complete the following major requirements:

Code	Title	Credits
AKNS A201	Alaska Native Perspectives	3
AKNS A492	Cultural Knowledge of Native Elders	3
Complete 8 credits of any Alaska Native language:		**8**
AKNS A101A	Elementary Central Yup'ik Language I	
AKNS A101B	Elementary Tlingit Language I	
AKNS A101C	Elementary Alaska Native Language I	
AKNS A101D	Elementary Inupiaq Language I	
AKNS A101E	Elementary Alutiiq Language I	
AKNS A101F	Elementary Dena'ina Language I	
AKNS A101H	Elementary Ahtna Language I	
AKNS A102A	Elementary Central Yup'ik Language II	
AKNS A102B	Elementary Tlingit Language II	
AKNS A102C	Elementary Alaska Native Language II	
AKNS A102D	Elementary Inupiaq Language II	
AKNS A102E	Elementary Alutiiq Language II	
AKNS A102F	Elementary Dena'ina Language II	
AKNS A102H	Elementary Ahtna Language II	
Complete one of the following:		**3**
AKNS A230	Oral Traditions of Alaska Native People	
AKNS A240	Alaska Native Cultural Orientation - Alutiiq/Sugpiaq	
AKNS A261	Alaska Native Art History	
AKNS A290	Topics in Alaska Native Studies [1]	
AKNS/PS A346	Alaska Native Politics	
ANTH A390A	Arctic and Subarctic Cultures	
ART A270	Beginning Alaska Native Art	
Total		**17**

[1] *AKNS A290 must be completed as either Alaska Native Tribes or Climate Change & Environmental Policy.*

A minimum of 60 credits is required for the degree.

Program Student Learning Outcomes

- Gain elementary-level proficiency in one Alaska Native language.
- Demonstrate a broad understanding of Alaska Native cultures, histories, and contemporary politics.
- Identify and analyze contemporary Alaska Native challenges within global Indigenous contexts.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year

Fall		Credits
AKNS A101A or AKNS A101B or AKNS A101C or AKNS A101D or AKNS A101E or AKNS A101F or AKNS A101H	Elementary Central Yup'ik Language I or Elementary Tlingit Language I or Elementary Alaska Native Language I or Elementary Inupiaq Language I or Elementary Alutiiq Language I or Elementary Dena'ina Language I or Elementary Ahtna Language I	4
AKNS A201	Alaska Native Perspectives	3
WRTG A111	Writing Across Contexts	3
GER Oral Communication Skills		3
GER Quantitative Skills		3
	Credits	**16**

Spring		
AKNS A102A or AKNS A102B or AKNS A102C or AKNS A102D or AKNS A102E or AKNS A102F or AKNS A102H	Elementary Central Yup'ik Language II or Elementary Tlingit Language II or Elementary Alaska Native Language II or Elementary Inupiaq Language II or Elementary Alutiiq Language II or Elementary Dena'ina Language II or Elementary Ahtna Language II	4
AKNS A230 or AKNS A240 or AKNS A261 or AKNS A290 or AKNS/PS A346 or ANTH A390A or ART A270	Oral Traditions of Alaska Native People or Alaska Native Cultural Orientation - Alutiiq/Sugpiaq or Alaska Native Art History or Topics in Alaska Native Studies or Alaska Native Politics or Arctic and Subarctic Cultures or Beginning Alaska Native Art	3
GER Natural Sciences Lab		1
GER Natural Sciences Lecture		3
GER Written Communication Skills (200-level)		3
	Credits	**14**

Second Year

Fall		
AKNS A492	Cultural Knowledge of Native Elders	3
GER Fine Arts		3
GER Social Sciences		3
GER Natural Sciences Lecture		3
Elective		3
	Credits	**15**

Spring		
GER Social Sciences		3
Elective		3
Elective		3
Elective		3
Elective		3
	Credits	**15**
	Total Credits	**60**

Minor in Alaska Native Studies

Code	Title	Credits
Core Courses		
AKNS A201	Alaska Native Perspectives	3
AKNS A492	Cultural Knowledge of Native Elders	3
Complete 7 to 9 credits in one of the following focus areas:		7-9
Policy Focus		
AKNS A290	Topics in Alaska Native Studies	
AKNS/PS A346	Alaska Native Politics	
AKNS/PS A313	Tribes, Nations and Peoples	
AKNS A432	Indigenous Approaches to Well-Being	
AKNS/ANTH A461	Decolonizing Methodologies	
AKNS A490	Advanced Topics in Alaska Native Studies	

Language Focus		
AKNS A101A	Elementary Central Yup'ik Language I	
or AKNS A101B	Elementary Tlingit Language I	
or AKNS A101C	Elementary Alaska Native Language I	
or AKNS A101D	Elementary Inupiaq Language I	
or AKNS A101E	Elementary Alutiiq Language I	
or AKNS A101F	Elementary Dena'ina Language I	
or AKNS A101H	Elementary Ahtna Language I	
AKNS A102A	Elementary Central Yup'ik Language II	
or AKNS A102B	Elementary Tlingit Language II	
or AKNS A102C	Elementary Alaska Native Language II	
or AKNS A102D	Elementary Inupiaq Language II	
or AKNS A102E	Elementary Alutiiq Language II	
or AKNS A102F	Elementary Dena'ina Language II	
or AKNS A102H	Elementary Ahtna Language II	
Complete 6 credits from the following in addition to focus area courses above:		6
AKNS A101A	Elementary Central Yup'ik Language I	
AKNS A101B	Elementary Tlingit Language I	
AKNS A101C	Elementary Alaska Native Language I	
AKNS A101D	Elementary Inupiaq Language I	
AKNS A101E	Elementary Alutiiq Language I	
AKNS A101F	Elementary Dena'ina Language I	
AKNS A101H	Elementary Ahtna Language I	
AKNS A102A	Elementary Central Yup'ik Language II	
AKNS A102B	Elementary Tlingit Language II	
AKNS A102C	Elementary Alaska Native Language II	
AKNS A102D	Elementary Inupiaq Language II	
AKNS A102E	Elementary Alutiiq Language II	
AKNS A102F	Elementary Dena'ina Language II	
AKNS A102H	Elementary Ahtna Language II	
AKNS A114A	Central Yup'ik Reading and Writing	
AKNS A114E	Alutiiq and Sugpiaq Reading and Writing	
AKNS A182	Grant Writing for Alaska Native Communities	
AKNS A190	Selected Topics: Alaska Native Cultural Skills	
AKNS/MUS A215	Music of Alaska Natives and Indigenous Peoples of Northern Regions	
AKNS/MUS A216	World Indigenous Music	
AKNS/MUS A218A	Alaska Native Drummaking Techniques: Athabascan and Southeast Style	
AKNS/MUS A218B	Alaska Native Drummaking Techniques: Inupiaq and Yup'ik Style	
AKNS A230	Oral Traditions of Alaska Native People	
AKNS A240	Alaska Native Cultural Orientation - Alutiiq/Sugpiaq	
AKNS A261	Alaska Native Art History	
AKNS A290	Topics in Alaska Native Studies	
AKNS A292A	Alaska Native Language Apprenticeship	
AKNS A292B	Alaska Native Language Conversational Fluency Intensive	
AKNS/PS A313	Tribes, Nations and Peoples	
AKNS/PS A346	Alaska Native Politics	
AKNS/MUS A356	Yup'ik Music and Dance Ensemble	
AKNS A432	Indigenous Approaches to Well-Being	
AKNS A482	Indigenous Knowledge(s) and the Sciences in Global Contexts	
AKNS A490	Advanced Topics in Alaska Native Studies	
AKNS A495	Alaska Native Studies Internship	
ANTH A200	Alaska Native Cultures	
ENGL A245	Alaska Native Literatures	
HIST A341	History of Alaska	
JUST A355	Rural Justice	
Total		**19-21**

A minimum of 19 credits is required for the minor, of which 6 credits must be upper-division.

Occupational Endorsement Certificate in Alutiiq Language

This program is delivered only through Kodiak College.

Students can earn an Occupational Endorsement Certificate (OEC) in Alutiiq Language (also known as Sugpiaq) on their transcript through Kodiak College. The transcripted certificate is available to any student who receives grades of C or higher in the series of courses. Attainment of the OEC in Alutiiq Language will provide knowledge, resources and skills appropriate for a variety of entry-level jobs that use the Alutiiq language. Taken together, the courses introduce students to conversational speech and basic Alutiiq writing, reading and grammar, as well as contextual information about Alaskan language relationships, language endangerment and language revitalization. Students who earn this OEC will be able to certify a level of intermediate speech ability according to the American Council on the Teaching of Foreign Languages (ACTFL) scale through completion of an oral proficiency

assessment. The style of Alutiiq taught in this program is Kodiak Island Alutiiq.

Admission Requirements

- Complete the Admission Requirements for Occupational Endorsement Certificates (p. 46).

Advising

Advising for this program is available from the Kodiak College Alaska Native Studies faculty at (907) 486-1276.

Graduation Requirements

- Satisfy the General University Requirements for Occupational Endorsement Certificates (p. 440).
- Complete the program requirements below with a grade of C or better.

Program Requirements

Code	Title	Credits
AKNS A101E	Elementary Alutiiq Language I	4
AKNS A102E	Elementary Alutiiq Language II	4
AKNS A114E	Alutiiq and Sugpiaq Reading and Writing	3
AKNS A292B	Alaska Native Language Conversational Fluency Intensive *	1
Choose one of the following:		3
AKNS A240	Alaska Native Cultural Orientation - Alutiiq/Sugpiaq	
AKNS A292A	Alaska Native Language Apprenticeship	
Total		**15**

* *Completion of AKNS A292B with a grade of C or higher requires a minimum of intermediate-level conversational proficiency, based on the ACTFL oral proficiency assessment conducted at the conclusion of the course. Students who do not attain intermediate speaking ability may retake the course until successful.*

A total of 15 credits is required for the certificate.

Program Student Learning Outcomes

Upon completion of this OEC, students will be prepared to

- Demonstrate intermediate speaking proficiency, with conversational speaking skills as described in the ACTFL 2012 proficiency standards.
- Read and comprehend basic Alutiiq, including words and sentences pertaining to everyday topics, at level comparable to their speaking proficiency.
- Define and identify measures of language endangerment, describe Alaska Native language relationships, and compare theories of second language acquisition for threatened languages.
- Locate and assess Alutiiq language resources and reference materials for diverse situations and proficiency levels.

Bachelor of Arts in Anthropology

Anthropology is the holistic, comparative study of human diversity. The Bachelor of Arts (BA) in Anthropology provides students with a solid foundation in the contemporary theory, practice and application of the discipline and an understanding of global human diversity with a special emphasis on the cultures, lifeways and contemporary social issues of Alaska and the Circumpolar North. The program prepares students in intercultural fluency, critical thinking and research skills through coursework, applied research experiences and fieldwork. Graduates find opportunities in education, health care, museums, social services, international development agencies, governmental agencies, non-profit organizations, marketing and publishing. Many graduates also pursue graduate degrees in anthropology, law, public health, public policy, social work and other fields.

Admission Requirements

- Complete the Admission Requirements for Baccalaureate Degrees (p. 46).

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (p. 442).
- Complete the General Education Requirements for Baccalaureate Degrees (p. 443).
- Complete the following major requirements:

Code	Title	Credits
Core Courses		
ANTH A202	Cultural Anthropology	3
ANTH A205	Biological Anthropology	3
ANTH A210	Linguistic Anthropology	3
ANTH A211	Archaeology	3
ANTH A410	Anthropological Theory	3
ANTH A458	Applied Ethics in Anthropology [1]	3
Ethnographic Courses		
ANTH A200	Alaska Native Cultures	3
ANTH A390A	Arctic and Subarctic Cultures [1]	3
ANTH A390B	World Cultures [1]	3
or ANTH A390C	Comparative Culture Studies	
Methodology Courses		
Complete six credits from at least two of the following courses: [2]		6
ANTH A415	Applied Anthropology	
ANTH/SOC A430	Social Science Research Methods	
ANTH A431	Field Methods in Archaeology and Bioanthropology [3]	
ANTH A477	Cultural Resource Management	

ANTH A480	Analytical Techniques in Archaeology and Bioanthropology [1]	
ANTH A487	Field Methods in Cultural Anthropology	
GEOG A470	Environmental Policy and Regulation in Alaska	
or GEOG A475	Geospatial and Cartographic Techniques for the Sciences	
Topical/Theoretical Courses		
Complete six credits from at least two of the following courses: [2]		6
ANTH A411	Archaeological Theory	
ANTH A452	Culture and Human Biodiversity	
ANTH A454	Culture and Ecology	
ANTH A455	Culture and Health	
ANTH A464	Culture and Globalization	
ANTH A490A	Health, Ritual and Science [1]	
ANTH A490B	Historical Engagements [1]	
ANTH A490C	Belief and Identity [1]	
ANTH A490D	Topics in the Contemporary North [1]	
ANTH A490E	Culture, Environment, Place [1]	
Program Electives		
Complete any additional 3 credits in ANTH or GEOG.		3
Upper-Division Humanities Electives		
Complete six upper-division credits in AKNS, ART, ENGL, HIST, PHIL, THR or languages.		6
Total		**48**

1 *Specific topical emphases for these courses vary by offering. See catalog course descriptions for details.*

2 *Other upper-division selected topics (ANTH A490), practicum (ANTH A495), independent study (ANTH A497), or individual research (ANTH A498), or thesis (ANTH A499) courses may be applied to satisfy methodological or topical/theoretical course requirements with department approval, depending on course content.*

3 *ANTH A431 is infrequently offered, typically as a summer field school. Please check with the Department of Anthropology for the schedule.*

A minimum of 120 credits is required for the degree, of which 39 credits must be upper-division.

Honors in Anthropology

The BA in Anthropology recognizes distinguished achievement by undergraduate majors in the study of anthropology by conferring programmatic honors in Anthropology. In order to receive honors in Anthropology, a student must meet the following requirements:

- Be a declared anthropology major;
- Satisfy all of the requirements for a Bachelor of Arts or Bachelor of Science in Anthropology;
- Meet the requirements for Graduation with Honors (p. 30);
- Earn a minimum GPA of 3.50 in courses specific to the anthropology major;
- Complete a senior thesis project (taken as ANTH A499), based on library, laboratory or field research resulting in a substantial, thesis-quality paper defended before the anthropology faculty. The course may be taken on a one-semester (3-credit) or two-semester (6-credit) basis.

Program Student Learning Outcomes

Anthropology, the holistic, comparative study of human diversity, consists of four subfields: archaeology, biological anthropology, cultural anthropology, and linguistic anthropology. The BA/BS degrees develop student knowledge of these four subfields, their theories, methods, applications, and relevance to understanding global human diversity with an emphasis on the cultures, people, and social issues of Alaska and the Circumpolar North.

Students graduating with a Bachelor of Arts in Anthropology will be able to:

- Demonstrate a familiarity with the development of anthropological thought and the contemporary concepts, theories, and application of the four subfields.
- Use anthropological perspectives to describe the past and present cultural diversity of Alaska and analyze contemporary social topics in the Circumpolar North.
- Identify ethical principles that guide anthropological practice and ethical issues encountered in anthropological research.
- Exhibit proficiency in documenting, evaluating, and communicating anthropological information.
- Explain how to apply anthropological methods and techniques to research questions and practical social problems.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear

as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.

- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
ANTH A200	Alaska Native Cultures	3
WRTG A111	Writing Across Contexts	3
GER Fine Arts		3
GER Oral Communication Skills		3
GER Quantitative Skills		3
	Credits	**15**
Spring		
ANTH A210	Linguistic Anthropology	3
WRTG A213	Writing and the Sciences	3
GER Humanities		3
Elective		3
Elective		3
	Credits	**15**
Second Year		
Fall		
ANTH A202	Cultural Anthropology	3
ANTH A211	Archaeology	3
GER Humanities		3
GER Natural Sciences Lab		1
Elective		3
Elective		3
	Credits	**16**
Spring		
ANTH A205	Biological Anthropology	3
ANTH A390B or ANTH A390C	World Cultures or Comparative Culture Studies	3
Elective		3
Elective		3
Upper Division Program Elective (Topical/Theoretical)		3
	Credits	**15**
Third Year		
Fall		
ANTH A390A	Arctic and Subarctic Cultures	3
Elective		3
Elective		3
Upper Division Program Elective (Humanities)		3
Upper Division Program Elective (Methodology)		3
	Credits	**15**
Spring		
ANTH A458	Applied Ethics in Anthropology	3
Elective		3
Elective		3
Upper Division Program Elective (Methodology)		3
Upper Division Program Elective (Topical/Theoretical)		3
	Credits	**15**
Fourth Year		
Fall		
ANTH A410	Anthropological Theory	3
GER Integrative Capstone		3
Elective		3
Elective		3
Upper Division Program Elective		3
	Credits	**15**
Spring		
Elective		3
Elective		3
Program Elective (ANTH, GEOG)		3
Upper Division Program Elective		3
Upper Division Program Elective (Humanities)		3
	Credits	**15**
	Total Credits	**121**

Bachelor of Science in Anthropology

Anthropology is the holistic, comparative study of human diversity. The Bachelor of Science (BS) in Anthropology provides students with a solid foundation in the contemporary theory, practice and application of the discipline and an understanding of global human diversity with a special emphasis on the cultures, lifeways and contemporary social issues of Alaska and the Circumpolar North. The program prepares students in intercultural fluency, critical thinking and research skills through coursework, applied research experiences and fieldwork. Graduates find opportunities in laboratory sciences, international development agencies, governmental agencies, museums, non-profit organizations, publishing and many other fields. Many graduates also pursue graduate degrees in anthropology, medicine, public health, behavioral sciences, forensics and other fields.

Admission Requirements

- Complete the Admission Requirements for Baccalaureate Degrees (p. 46).

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (p. 442).
- Complete the General Education Requirements for Baccalaureate Degrees (p. 443).
  - For the GER Quantitative Skills requirement, MATH A121 or MATH A151 or MATH A155 or MATH A221 or MATH A252 or MATH A252F are recommended in order to meet the prerequisite for the degree requirement in statistics.
- Complete the following major requirements:

Code	Title	Credits
Core Courses		
ANTH A202	Cultural Anthropology	3
ANTH A205 & A205L	Biological Anthropology and Biological Anthropology Laboratory	4
ANTH A210	Linguistic Anthropology	3
ANTH A211 & A211L	Archaeology and Archaeology Laboratory	4
ANTH A410	Anthropological Theory	3
ANTH A458	Applied Ethics in Anthropology [1]	3
Ethnographic Courses		
ANTH A200	Alaska Native Cultures	3
ANTH A390A	Arctic and Subarctic Cultures [1]	3
ANTH A390B	World Cultures [1]	3
or ANTH A390C	Comparative Culture Studies	
Methodology Courses		
Complete six credits from at least two the following: [2]		6
ANTH A415	Applied Anthropology	
ANTH/SOC A430	Social Science Research Methods	
ANTH A431	Field Methods in Archaeology and Bioanthropology [3]	
ANTH A477	Cultural Resource Management	
ANTH A480	Analytical Techniques in Archaeology and Bioanthropology [1]	
ANTH A487	Field Methods in Cultural Anthropology	
GEOG A470	Environmental Policy and Regulation in Alaska	
or GEOG A475	Geospatial and Cartographic Techniques for the Sciences	
Topical/Theoretical Courses		
Complete six credits from at least two of the following: [2]		6
ANTH A411	Archaeological Theory	
ANTH A452	Culture and Human Biodiversity	
ANTH A454	Culture and Ecology	
ANTH A455	Culture and Health	
ANTH A464	Culture and Globalization	
ANTH A490A	Health, Ritual and Science [1]	
ANTH A490B	Historical Engagements [1]	
ANTH A490C	Belief and Identity [1]	
ANTH A490D	Topics in the Contemporary North [1]	
ANTH A490E	Culture, Environment, Place [1]	
Program Electives		
Complete any additional 3 credits in ANTH or GEOG.		3
Statistics Course		
STAT A253	Applied Statistics for the Sciences	4
or STAT A307	Probability and Statistics	
Upper-Division Natural Sciences Electives		
Complete six upper-division credits in BIOL, CHEM, GEOL, or PHYS.		6
Total		**54**

1 *Specific topical emphases for these courses vary by offering. See catalog course descriptions for details.*

2 *Other upper-division selected topics (ANTH A490), practicum (ANTH A495), independent study (ANTH A497), or individual research (ANTH A498), or thesis (ANTH A499) courses may be applied to satisfy methodological or topical/theoretical course requirements with department approval, depending on course content.*

3 ANTH A431 *is infrequently offered, typically as a summer field school. Please check with the Department of Anthropology for schedule.*

A minimum of 120 credits is required for the degree, of which 39 credits must be upper-division.

Honors in Anthropology

The Bachelor of Science in Anthropology recognizes distinguished achievement by undergraduate majors in the study of anthropology by conferring programmatic honors in anthropology. In order to receive honors in anthropology, a student must meet the following requirements:

- Be a declared anthropology major;
- Satisfy all of the requirements for a Bachelor of Arts or Bachelor of Science in Anthropology;
- Meet the requirements for Graduation with Honors (p. 30) as outlined in the catalog;
- Earn a minimum GPA of 3.50 in courses specific to the anthropology major;
- Complete a senior thesis project (taken as ANTH A499), based on library, laboratory or field research resulting in a substantial, thesis-quality paper defended before the anthropology faculty. The

course may be taken on a one-semester (3-credit) or two-semester (6-credit) basis.

Program Student Learning Outcomes

Anthropology, the holistic, comparative study of human diversity, consists of four subfields: archaeology, biological anthropology, cultural anthropology, and linguistic anthropology. The BA/BS degrees develop student knowledge of these four subfields, their theories, methods, applications, and relevance to understanding global human diversity with an emphasis on the cultures, people, and social issues of Alaska and the Circumpolar North.

Students graduating with a Bachelor of Science in Anthropology will be able to:

- Demonstrate a familiarity with the development of anthropological thought and the contemporary concepts, theories, and application of the four subfields.
- Use anthropological perspectives to describe the past and present cultural diversity of Alaska and analyze contemporary social topics in the Circumpolar North.
- Identify ethical principles that guide anthropological practice and ethical issues encountered in anthropological research.
- Exhibit proficiency in documenting, evaluating, and communicating anthropological information.
- Explain how to apply anthropological methods and techniques to research questions and practical social problems.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
ANTH A200	Alaska Native Cultures	3
WRTG A111	Writing Across Contexts	3
GER Fine Arts		3
GER Oral Communication Skills		3
GER Quantitative Skills		3
	Credits	**15**
Spring		
ANTH A205 & A205L	Biological Anthropology and Biological Anthropology Laboratory	4
WRTG A213	Writing and the Sciences	3
GER Humanities		3
Elective		3
Elective		3
	Credits	**16**
Second Year		
Fall		
ANTH A202	Cultural Anthropology	3
ANTH A211 & A211L	Archaeology and Archaeology Laboratory	4
STAT A253 or STAT A307	Applied Statistics for the Sciences or Probability and Statistics	4
GER Humanities		3
	Credits	**14**
Spring		
ANTH A210	Linguistic Anthropology	3
ANTH A390B or ANTH A390C	World Cultures or Comparative Culture Studies	3
Elective		3
Elective		3
Elective		3
	Credits	**15**
Third Year		
Fall		
ANTH A390A	Arctic and Subarctic Cultures	3
Elective		3
Program Elective (Methodology)		3
Program Elective (Topical/Theoretical)		3

Upper Division Elective		3
	Credits	**15**
Spring		
ANTH A458	Applied Ethics in Anthropology	3
Elective		3
Program Elective (Methodology)		3
Program Elective (Topical/Theoretical)		3
Upper Division Program Elective (Natural Sciences)		3
	Credits	**15**
Fourth Year		
Fall		
ANTH A410	Anthropological Theory	3
GER Integrative Capstone		3
Elective		3
Upper Division Elective		3
Upper Division Program Elective (Natural Sciences)		3
	Credits	**15**
Spring		
Elective		3
Elective		3
Elective		3
Elective		3
Program Elective (ANTH, GEOG)		3
	Credits	**15**
	Total Credits	**120**

Minor in Anthropology

Students majoring in another subject who wish to minor in anthropology must complete the following requirements.

Code	Title	Credits
Core Anthropology Courses		
Complete two of the following courses:		6
ANTH A101	Introduction to Anthropology	
ANTH A111	Ancient Civilizations	
ANTH A202	Cultural Anthropology	
ANTH A205	Biological Anthropology	
ANTH A210	Linguistic Anthropology	
ANTH A211	Archaeology	
Ethnographic Courses		
Complete 6 credits from at least two of the following courses:		6
ANTH A200	Alaska Native Cultures	
ANTH A390A	Arctic and Subarctic Cultures [1]	
ANTH A390B	World Cultures [1]	
ANTH A390C	Comparative Culture Studies [1]	
Methodological, Topical, and Theoretical Courses [2]		
Complete 6 credits from at least two of the following courses:		6
ANTH A410	Anthropological Theory	
ANTH A411	Archaeological Theory	
ANTH A415	Applied Anthropology	
ANTH/SOC A430	Social Science Research Methods	
ANTH A431	Field Methods in Archaeology and Bioanthropology	
ANTH A452	Culture and Human Biodiversity	
ANTH A454	Culture and Ecology	
ANTH A455	Culture and Health	
ANTH A458	Applied Ethics in Anthropology [1]	
ANTH A464	Culture and Globalization	
ANTH A477	Cultural Resource Management	
ANTH A480	Analytical Techniques in Archaeology and Bioanthropology [1]	
ANTH A487	Field Methods in Cultural Anthropology	
ANTH A490A	Health, Ritual and Science [1]	
ANTH A490B	Historical Engagements [1]	
ANTH A490C	Belief and Identity [1]	
ANTH A490D	Topics in the Contemporary North [1]	
ANTH A490E	Culture, Environment, Place [1]	
Total		**18**

1 *Specific topical emphasis for this course varies by offering. See catalog course description for details.*

2 *Other upper-division selected topics courses ANTH A490 or independent study courses (ANTH A397 or ANTH A497) may be petitioned to satisfy the methodological/topical/theoretical course requirements, depending on course content.*

A total of 18 credits is required for the minor, 9 of which must be upper-division.

Occupational Endorsement Certificate in Applied Behavior Analysis

Admission to this program is currently suspended. Contact the College of Arts & Sciences for more information.

Bachelor of Arts in Art

The mission of the Department of Art is to prepare students to use their artistic abilities to make a difference in society. Our goal is to train and graduate students who are empowered artists, focused on excellence in creative activity, learning, teaching, and who are essential to the continued development of our vibrant culture. The department also maintains the Kimura Gallery and the Arc Gallery that provide opportunities for campus and community members to see the exhibitions of international, national, and local artists. Students are

encouraged to engage directly with art in these exhibitions through talks by the artists, curators, and art faculty.

The Bachelor of Arts (BA) in Art is accredited by the National Association of Schools of Art and Design (NASAD).

Admission Requirements

- Complete the Admission Requirements for Baccalaureate Degrees (p. 46).

Special Considerations

- Some courses do not apply to the degree program.
- Some courses may be taken for repeat credit.
- Many Art courses require completion of certain prerequisite Art courses. Non-Art majors who wish to enroll in an Art class without first having completed the recommended prerequisites are free to do so with instructor permission, but may find the classroom experience difficult or unrewarding.
- Obtain pre-registration approval from Art faculty for upper-division Art coursework undertaken each semester.

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (p. 442).
- Complete the General Education Requirements for Baccalaureate Degrees (p. 443).
- A maximum of 60 credits in ART may be applied toward the degree.
- Complete the following major requirements:

Code	Title	Credits
Lower-Division Art		
Core Courses:		18
ART A105	Beginning Drawing	
ART A111	Two-Dimensional Design	
ART A113	Three-Dimensional Design	
ART A205	Intermediate Drawing	
ART A261	History of Western Art I	
ART A262	History of Western Art II	
Choose one two-dimensional course, one three-dimensional course, and one course from either list:		9
Two-Dimensional Area		
ART A112	Color Design	
ART A212	Beginning Watercolor	
ART A213	Beginning Painting	
ART A215	Beginning Printmaking	
ART A224	Beginning Photography	
ART A252	Beginning Graphic Design	
ART A257	Computer Art	
Three-Dimensional Area		
ART A201	Beginning Handbuilt Ceramics	
ART A202	Beginning Wheelthrown Ceramics	
ART A211	Beginning Sculpture	
ART A270	Beginning Alaska Native Art	
Upper-Division Studio Art		
Complete a total of 15 credits from the studio areas listed below, with a minimum of 9 credits from any one area:		15
Alaska Native Art		
Ceramics		
Communication Design		
Drawing		
Painting		
Sculpture		
Upper-Division Art History		
Complete 6 credits from the following:		6
ART A362	History of Modern Art	
ART A363	History of Contemporary Art	
ART A364	Italian Renaissance Art	
ART A367	History of Photography	
ART A492	Art History Seminar	
Additional Requirements		
ART A203	Introduction to Art Education	3
ART A491	Senior Seminar	3
PHIL A401	Aesthetics	3
Upper-division general electives [1]		12
Total		**69**

[1] *At least 6 of the 12 elective credits must have a prefix other than ART.*

A minimum of 120 credits is required for the degree, of which 39 credits must be upper-division.

Program Student Learning Outcomes

Students graduating with a Bachelor of Arts in Art will:

- Understand the multiple ways in which creative thinking may be applied to a variety of intellectual, social, and professional circumstances
- Possess a broad knowledge of contemporary and historical contexts in the visual arts
- Utilize critical thinking, writing, and research skills leading to creative problem solving
- Apply techniques, composition, and materials to express ideas through a variety of media

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the

rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
ART A105	Beginning Drawing	3
ART A111	Two-Dimensional Design	3
ART A113	Three-Dimensional Design	3
WRTG A111	Writing Across Contexts	3
GER Quantitative Skills		3
	Credits	**15**
Spring		
ART A205	Intermediate Drawing	3
GER Oral Communication Skills		3
GER Natural Sciences		3
GER Natural Sciences Lab		1
GER Written Communication Skills (200 level course)		3
Program Elective (Two-Dimensional)		3
	Credits	**16**
Second Year		
Fall		
ART A203	Introduction to Art Education	3
ART A261	History of Western Art I	3
GER Humanities		3
GER Natural Sciences		3
Program Elective (Three-Dimensional)		3
	Credits	**15**
Spring		
ART A262	History of Western Art II	3
GER Humanities		3
GER Social Sciences		3
Program Elective (Two-Dimensional or Three-Dimensional)		3
Upper Division Program Elective (Studio Art)		3
	Credits	**15**
Third Year		
Fall		
PHIL A401	Aesthetics	3
GER Alaska Native-Themed		3
GER Social Sciences		3
Upper Division Program Elective (Studio Art)		3
Upper Division Program Elective (Studio Art)		3
	Credits	**15**
Spring		
Elective		3
Elective		3
Upper Division Program Elective (Art History)		3
Upper Division Program Elective (Studio Art)		3
Upper Division Program Elective (Studio Art)		3
	Credits	**15**
Fourth Year		
Fall		
ART A491	Senior Seminar	3
Elective		3
Upper Division Program Elective		3
Upper Division Program Elective (Art History)		3
Upper Division Program Elective (Non-Art Prefix)		3
	Credits	**15**
Spring		
Elective		3
Elective		3
Elective		3
Upper Division Program Elective		3
Upper Division Program Elective (Non-Art Prefix)		3
	Credits	**15**
	Total Credits	**121**

Bachelor of Fine Arts in Art

The Bachelor of Fine Arts (BFA) enables students to concentrate their efforts in a studio art education. The structure of the BFA program presents many opportunities for interaction with faculty and fellow BFA students. Mentorship by dedicated faculty prepare students for a professional career in the arts.

The Bachelor of Fine Arts is accredited by the National Association of Schools of Art and Design (NASAD).

Admission Requirements

- Complete the Admission Requirements for Baccalaureate Degrees (p. 46).
- Declare the Bachelor of Arts (BA) in Art.
- Upon completion of the following courses and requirements, refer to the BFA Handbook on the Department of Art website for details about applying for program admission to the BFA. Program admission is a selective process that includes submitting a portfolio of work.
  - Choose a primary studio area of concentration and secondary studio area of emphasis, listed in the Graduation Requirements below.
  - Complete the 24 credits of the Foundation Core Courses in the Graduation Requirements below.
  - Complete the 9 credits of coursework in the two-dimensional and three-dimensional Beginning Studio Electives in the Graduation Requirements below.
  - Maintain a 2.50 cumulative GPA and 3.00 overall GPA in Art courses.
- Once selected, file a change of major form to be admitted to the BFA.

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (p. 442).
- Complete the General Education Requirements for Baccalaureate Degrees (p. 443).
- Complete the following major requirements:

Code	Title	Credits
Foundation Core Courses		
ART A105	Beginning Drawing	3
ART A111	Two-Dimensional Design	3
ART A112	Color Design	3
ART A113	Three-Dimensional Design	3
ART A205	Intermediate Drawing	3
ART A261	History of Western Art I	3
ART A262	History of Western Art II	3
ART A307	Life Drawing and Composition I	3
Beginning Studio Electives		
Complete one course from the two-dimensional list and one course from the three-dimensional list, and one course from either list:		9
Two-Dimensional Area		
ART A212	Beginning Watercolor	
ART A213	Beginning Painting	
ART A215	Beginning Printmaking	
ART A224	Beginning Photography	
ART A257	Computer Art	
Three-Dimensional Area		
ART A201	Beginning Handbuilt Ceramics	
ART A202	Beginning Wheelthrown Ceramics	
ART A211	Beginning Sculpture	
Art History		
Complete three of the following:		9
ART A362	History of Modern Art	
ART A363	History of Contemporary Art	
ART A364	Italian Renaissance Art	
ART A367	History of Photography	
ART A492	Art History Seminar	
Primary Studio Area of Concentration and Secondary Studio Area of Emphasis		
Complete a primary studio area of concentration and a secondary studio area of emphasis from the following:		
Ceramics		
Communication Design		
Drawing		
Painting		
Sculpture		
Primary Studio Area of Concentration		
Complete a primary studio area of concentration from the list above and complete the following studio courses in the same concentration:		
200-level studio course [1]		3
300-level studio course		6
400-level studio course		6
Complete a support course from the following:		3
ART A390	Selected Topics in Studio Art	
ART A490	Selected Topics in Studio Art	
ART A498	Individual Research	
Other courses by permission		
Secondary Studio Area of Emphasis		
Complete a secondary studio area of emphasis from the list above and complete the following studio courses in the same emphasis:		
200-level studio course [2]		3
300-level studio course		3
Complete a support course from the following:		3
300-level studio course		
400-level studio course		
ART A390	Selected Topics in Studio Art	
ART A490	Selected Topics in Studio Art	
ART A498	Individual Research	
Other courses by permission		
Thesis Requirements		
ART A491	Senior Seminar (fall semesters only)	3
ART A499	Thesis (spring semesters only)	3

Additional Requirements		
ART A203	Introduction to Art Education	3
PHIL A401	Aesthetics	3
Complete 6 credits of electives selected from art history or art studio courses.		6
Total		**87**

1 *Students must choose a beginning course studio area of concentration. Exception: Students with a drawing concentration may choose from any 200-level two-dimensional class listed under Beginning Studio Electives.*

2 *Must be other than a course selected to fulfill the Beginning Studio Electives within the Foundation Core.*

A minimum of 120 credits is required for the degree, of which 39 credits must be upper-division. A maximum of 84 credits in Art (ART) may be applied towards the degree.

Program Student Learning Outcomes

Students graduating with a Bachelor of Fine Arts will be able to:

- Master techniques, composition, and the use of materials to express ideas in a cohesive body of work.
- Comprehend knowledge of contemporary and historical contexts in the visual arts.
- Apply critical thinking, writing and research skills in the discovery of original approaches to creative problem solving.
- Demonstrate professional skills to be a practicing artist as applied to art proposals, exhibitions and business matters.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
ART A105	Beginning Drawing	3
ART A111	Two-Dimensional Design	3
ART A113	Three-Dimensional Design	3
WRTG A111	Writing Across Contexts	3
GER Quantitative Skills		3
	Credits	**15**
Spring		
ART A112	Color Design	3
ART A205	Intermediate Drawing	3
GER Oral Communication Skills		3
GER Written Communication Skills (200 level course)		3
Program Elective (Two-Dimensional)		3
	Credits	**15**
Second Year		
Fall		
ART A203	Introduction to Art Education	3
GER Natural Sciences		3
GER Natural Science Lab		1
Program Elective (Primary Studio 200 level course)		3
Program Elective (Three-Dimensional)		3
Program Elective (Two-Dimensional or Three-Dimensional)		3
	Credits	**16**
Spring		
GER Alaska Native-Themed		3
GER Natural Sciences		3
GER Social Sciences		3
Program Elective (Secondary Studio 200 level course)		3
Upper Division Program Elective (Primary Studio 300 level course)		3
	Credits	**15**
Third Year		
Fall		
ART A261	History of Western Art I	3
PHIL A401	Aesthetics	3
GER Humanities		3

Upper Division Program Elective (Primary Studio 300 level course)		3
Upper Division Program Elective (Secondary Studio 300 level course)		3
	Credits	**15**
Spring		
ART A262	History of Western Art II	3
ART A307	Life Drawing and Composition I	3
GER Humanities		3
Upper Division Program Elective (Primary Studio Support)		3
Upper Division Program Elective (Primary Studio 400 level course)		3
	Credits	**15**
Fourth Year		
Fall		
ART A491	Senior Seminar	3
GER Social Sciences		3
Upper Division Program Elective (Art History)		3
Upper Division Program Elective (Art History)		3
Upper Division Program Elective (Primary Studio 400 level course)		3
	Credits	**15**
Spring		
ART A499	Thesis	3
Program Elective (Art History or Studio)		3
Program Elective (Art History or Studio)		3
Upper Division Program Elective (Art History)		3
Upper Division Program Elective (Secondary Studio Support)		3
	Credits	**15**
	Total Credits	**121**

Minor in Art

The mission of the Department of Art is to prepare students to use their artistic abilities to make a difference in society. Our goal is to train and graduate students who are empowered artists, focused on excellence in creative activity, learning, and teaching, and who are essential to the continued development of our vibrant culture.

Students majoring in another subject who wish to minor in art must complete the following requirements.

Code	Title	Credits
Art History		**3**
ART A262	History of Western Art II	
Design		**6**
ART A111	Two-Dimensional Design	
ART A113	Three-Dimensional Design	
Drawing		**3**
ART A105	Beginning Drawing	
Studio		**3**
Select one lower-division studio art course from the following:		
ART A201	Beginning Handbuilt Ceramics	
ART A202	Beginning Wheelthrown Ceramics	
ART A205	Intermediate Drawing	
ART A211	Beginning Sculpture	
ART A212	Beginning Watercolor	
ART A213	Beginning Painting	
ART A215	Beginning Printmaking	
ART A224	Beginning Photography	
ART A252	Beginning Graphic Design	
ART A257	Computer Art	
ART A270	Beginning Alaska Native Art	
Select two upper-division studio art courses from the same studio area as the lower-division studio art course.		**6**
Painting		
Drawing		
Illustration		
Graphic Design		
Photography		
Printmaking		
Ceramics		
Sculpture		
Alaska Native Art		
Total		**21**

A total of 21 credits is required for the minor, 6 credits of which must be upper-division.

Associate of Arts

Delivered cooperatively across UAA's five campuses (Anchorage, Kenai Peninsula College, Kodiak College, Mat-Su College, and Prince William Sound College), the Associate of Arts (AA) degree with a major in General Program provides an academic foundation for success in multiple pathways, including life, career preparation, continued study, and engaged citizenship for Alaska’s diverse peoples.

The AA provides an introduction to a wide range of academic subjects, and a strong foundation in intellectual and practical skills, including inquiry and analysis, quantitative literacy, critical and creative thinking, problem solving, written and oral communication, information literacy, and collaborative learning. The AA can be completed using solely 100- and 200-level courses.

AA students may select courses of personal interest or, with the assistance of an academic advisor, tailor the AA program to prepare for a particular baccalaureate major. Academic advisors assist students in ensuring the transition is smooth. A student who graduates with the AA has completed all General Education Requirements for a baccalaureate degree at UAA except for an integrative capstone course (an upper-division course usually taken as part of a student's baccalaureate major).

A completed general education program also more easily transfers to other institutions.

Admission Requirements

- Complete the Admission Requirements for Associate Degrees (p. 46).

Graduation Requirements

- Complete the General University Requirements for Associate Degrees (p. 441).
- Complete the following major requirements:
  - Complete 3 credits from the GER Oral Communication Skills list (p. 446).
  - Complete 6 credits from the GER Written Communication Skills list (p. 446).
  - Complete 3 credits from the GER Quantitative Skills list (p. 446).
  - Complete 3 credits from the GER Fine Arts list (p. 448).
  - Complete 6 credits from the GER Humanities list (p. 448).
  - Complete 6 credits from the GER Social Sciences list (p. 448).
  - Complete 7 credits including one laboratory course (either combined or separate) from the GER Natural Sciences list (p. 448).
  - Complete 3 credits from the GER Alaska Native-Themed list. (p. 454)
  - Complete 3 credits from the GER Intercultural Fluency list (p.).
  - Complete 20 credits of electives.

A minimum of 60 credits is required for the degree.

Mission Statement

The Associate of Arts (AA) degree provides an academic foundation for student success in multiple pathways including continued study, career preparation, and engaged citizenship for Alaska's diverse peoples.

Program Student Learning Outcomes

Students graduating with an AA degree from UAA will be able to do the following at the introductory level:

- Communicate effectively
- Think critically
- Evaluate analytically
- Reason empirically.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
WRTG A111	Writing Across Contexts	3
GER Fine Arts		3
GER Humanities		3
GER Oral Communication Skills		3
GER Quantitative Skills		3
	Credits	**15**
Spring		
GER Humanities		3
GER Natural Sciences Lecture		3
GER Natural Sciences Lab		1
GER Social Sciences		3
GER Written Communication Skills (200-level)		3
Elective		2
	Credits	**15**
Second Year		
Fall		
GER Alaska Native-Themed		3
GER Intercultural Fluency		3
GER Natural Sciences Lecture		3
GER Social Sciences		3

Elective	3
Credits	**15**
Spring	
Elective	3
Elective	3
Elective	3
Elective	3
Elective	3
Credits	**15**
Total Credits	**60**

Associate of Science

The Associate of Science (AS) prepares students to enter the workforce or to go on to a science-related or health-related bachelor's degree. The AS provides an academic foundation in natural and social sciences, as well as preparation in the liberal arts through general education courses.

With the assistance of an academic advisor students may tailor the program to prepare for a particular baccalaureate major in natural, social, or clinical sciences.

Admission Requirements

- Complete the Admission Requirements for Associate Degrees (p. 46).

Graduation Requirements

- Complete the General University Requirements for Associate Degrees (p. 441).
- Complete the following major requirements:
  - Complete 3 credits from the GER Oral Communication Skills list (p. 446).
  - Complete 6 credits from the GER Written Communication Skills list (p. 446).
  - Complete 3 credits from the GER Quantitative Skills list (p. 446).
  - Complete 3 credits from the GER Fine Arts list (p. 448).
  - Complete 6 credits from the GER Humanities list (p. 448).
  - Complete 6 credits from the GER Social Sciences list (p. 448).
  - Complete 7 credits including one laboratory course (either combined or separate) from the GER Natural Sciences list (p. 448).
  - Complete 3 credits from the GER Alaska Native-Themed list (p. 454).
  - Complete 3 credits from the GER Intercultural Fluency list (p.).
  - Complete 20 credits of electives from the following prefixes: ANTH (p. 76), ASTR (p. 88), BIOL (p. 98), CHEM (p. 118), DH (p. 145), DN (p. 149), GEOG (p. 184), GEOL (p. 185), HLTH (p. 194), MATH (p. 225), MBIO (p. 239), MEDT (p. 235), PHYS (p. 282), PSY (p. 291), SOC (p. 314), STAT (p. 317), SWK (p. 308)

A minimum of 60 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with an Associate of Science will be able to:

- Communicate effectively.
- Think creatively and critically.
- Reason scientifically.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year

Fall		**Credits**
WRTG A111	Writing Across Contexts	3
GER Humanities		3
GER Oral Communication Skills		3
GER Quantitative Skills		3-4
GER Social Sciences		3
Credits		**15-16**

Spring	
GER Fine Arts	3
GER Natural Sciences Lecture	3
GER Natural Sciences Lab	1
GER Social Sciences	3
GER Written Communication Skills (200-level)	3
Elective	3
Credits	**16**
Second Year	
Fall	
GER Alaska Native-Themed	3
GER Humanities	3
GER Intercultural Fluency	3
GER Natural Sciences Lecture	3
Elective	3
Credits	**15**
Spring	
Elective	3
Elective	3
Elective	3
Elective	3
Elective	3
Credits	**15**
Total Credits	**61-62**

* *Note all GER courses should be selected to fulfill requirements for the track chosen in the Associate of Science (AS). See an advisor for the appropriate lists.*

Minor in Behavior Analysis

This minor is not available.

Bachelor of Arts in Biological Sciences

The Bachelor of Arts (BA) in Biological Sciences prepares students for careers in biology, graduate programs in biological sciences, and professional programs in health fields including medical, dental and veterinary.

Admission Requirements

- Complete the Admission Requirements for Baccalaureate Degrees (p. 46).

Academic Requirements

To graduate with a Bachelor of Arts (BA) in Biological Sciences, the student must complete all courses covered under major requirements for a BA in Biological Sciences with a minimum grade of C. All prerequisites for Biology (BIOL) courses must be completed with a minimum grade of C. Students who audit or are unable to earn a minimum grade of C in a lower-division (100- or 200-level) BIOL course may repeat the course two additional times on a space-available basis. Students who audit or are unable to earn a minimum grade of C in an upper-division (300- or 400-level) BIOL course may repeat the course one additional time on a space-available basis. Students repeating a BIOL course are required to complete all components of that course during the semester in which the course is retaken. When repeating a course with a lecture and laboratory component, both components must be repeated. Students enrolled in a BIOL laboratory must attend lab the first week of class or they may be administratively dropped.

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (p. 442).
- Complete the General Education Requirements for Baccalaureate Degrees (p. 443).
- Major requirements include both 27 credits in support courses from outside the discipline and 52-53 credits of coursework in biology, other natural sciences and math.
- Complete an exit examination.
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
Support Courses		
Complete 27 credits from the following prefixes, 9 credits of which must be upper-division, and may include courses from the general education requirements lists. You must complete a minimum of 3 credits from each of the following areas:		27
Fine Arts (ART, CWLA, DNCE, MUS, THR)		
Humanities (AKNS, ART, ASL, ENGL, FREN, GER, HIST, HUM, JPN, LING, PHIL, PS, RUSS, SPAN)		
Social Sciences (ANTH, BA, CEL, ECON, ENVI, GEOG, INTL, HS, JPC, JUST, LEGL, PSY, SOC, SWK, WSGS)		
Core Courses		
BIOL A108	Principles and Methods in Biology	6
BIOL A242	Fundamentals of Cell Biology	3
BIOL A243	Experiential Learning: Cell Biology and Genetics	4
or BIOL A273	Experiential Learning: Ecology and Evolution	
BIOL A252	Principles of Genetics	3
BIOL A271	Principles of Ecology	3
BIOL A288	Principles of Evolution	3
BIOL A492	Undergraduate Seminar	1
CHEM A105 & A105L	General Chemistry I and General Chemistry I Laboratory	4
CHEM A106 & A106L	General Chemistry II and General Chemistry II Laboratory	4

STAT A200	Elementary Statistics	3-4
or STAT A253	Applied Statistics for the Sciences	
or STAT A307	Probability and Statistics	
Upper-Division Program Electives		**18**
Complete a minimum of 3 credits from four of the five subject areas. A minimum of 6 credits must be experiential learning courses from two subject areas. [1]		
Genetics, Cellular and Molecular Biology		
BIOL A452	Human Genome	
BIOL A455	Experiential Learning: Bioinformatics	
BIOL A461	Molecular Biology	
BIOL A463	Molecular Biology of Cancer	
BIOL A465	Experiential Learning: Molecular Biology	
BIOL/CHEM A471	Immunology	
MBIO A340	Microbial Biology	
MBIO A342	Experiential Learning: Microbial Biology	
MBIO A460	Host-Microbiome Interactions	
MBIO A462	Virology	
Ecology and Evolution		
BIOL A430	Marine Mammal Biology	
BIOL A441	Animal Behavior	
BIOL A442	Experiential Learning: Animal Behavior	
BIOL A467	Wildlife Ecology	
BIOL A472	Biogeography	
BIOL A473	Conservation Biology	
BIOL/CHEM A474	Ecotoxicology	
BIOL A477	Tundra and Taiga Ecosystems	
BIOL A478	Biological Oceanography	
BIOL A481	Marine Biology	
BIOL A483	Exploration Ecology	
BIOL A484	Experiential Learning: Exploration Ecology Field Study	
BIOL A486	Evolutionary Ecology	
MBIO A450	Microbial Ecology	
MBIO/GEOL A468	Geomicrobiology	
MBIO A470	Ecology and Evolution of Infectious Disease	
Diversity and Organismal Biology		
BIOL A320	Vertebrate Biology	
BIOL A321	Experiential Learning: Vertebrate Biology	
BIOL A330	Plant Biology	
BIOL A423	Ichthyology	
BIOL A427	Marine Invertebrate Biology	
BIOL A430	Marine Mammal Biology	
BIOL A431	Plant Diversity and Evolution	
BIOL A487	Comparative Anatomy of Vertebrates	
MBIO A340	Microbial Biology	
MBIO A342	Experiential Learning: Microbial Biology	
MBIO A440	Microbial Diversity	
Physiology		
BIOL A310	Principles of Animal Physiology	
BIOL A311	Experiential Learning: Animal Physiology	
BIOL A412	Behavioral Endocrinology	
BIOL A413	Neurophysiology	
BIOL A415	Comparative Animal Physiology	
BIOL A417	Applied Kinesiology and Exercise Physiology	
BIOL A418	Fish Physiology	
BIOL A419	Sleep and Chronobiology	
BIOL A487	Comparative Anatomy of Vertebrates	
MBIO A410	Microbial Physiology	
Additional Upper-Division Electives		
BIOL A490	Selected Lecture Topics in Biology	
BIOL A495	Instructional Practicum: Laboratory	
BIOL A497	Independent Study in Biology	
BIOL A498	Individual Research [1]	
BIOL A499	Senior Thesis	
Total		**79-80**

[1] *Several courses are listed in more than one area. Each course can only count toward the credit requirement in one area. BIOL A498 credits may not be counted toward the experiential learning minimum requirement.*

A minimum of 120 credits is required for the degree, 39 credits of which must be upper-division.

Biological Sciences Exit Examination

All BA Biological Sciences majors are required to complete a nationally standardized exit examination during the semester immediately prior to or during the semester they intend to graduate. There is no minimum score required for graduation.

Honors in Biological Sciences

The Bachelor of Arts (BA) in Biological Sciences recognizes distinguished achievement by conferring programmatic honors in biological sciences. In order to receive honors in biological sciences, a student must meet the following requirements:

- Meet the requirements for Graduation with Honors (p. 30);
- Meet the requirements for a BA in Biological Sciences;
- Earn a minimum GPA of 3.50 in the major requirements;

- During the senior year of their academic program, the student must gain faculty approval for and complete, with a minimum grade of B, a senior thesis research project, with enrollment in BIOL A499. Biological science faculty members must approve the project proposal and final written report.

Program Student Learning Outcomes

Students graduating with a Bachelor of Arts or a Bachelor of Science in Biological Sciences will be able to:

- Demonstrate an understanding of the core concepts in the biological sciences: evolution; structure and function relationships; information flow, exchange and storage; transformation of energy and matter.
- Apply the process of science and construct knowledge through observations, experimentation, quantitative reasoning and hypothesis testing.
- Read, analyze and synthesize primary literature, and communicate scientific concepts and data in written and oral form.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
BIOL A108	Principles and Methods in Biology	6
CHEM A105 & A105L	General Chemistry I and General Chemistry I Laboratory	4
STAT A200 or STAT A253 or STAT A307	Elementary Statistics or Applied Statistics for the Sciences or Probability and Statistics	3-4
WRTG A111	Writing Across Contexts	3
	Credits	**16-17**
Spring		
BIOL A242	Fundamentals of Cell Biology	3
BIOL A252	Principles of Genetics	3
CHEM A106 & A106L	General Chemistry II and General Chemistry II Laboratory	4
WRTG A213	Writing and the Sciences	3
GER Oral Communication Skills		3
	Credits	**16**
Second Year		
Fall		
BIOL A271	Principles of Ecology	3
BIOL A288	Principles of Evolution	3
GER Fine Arts		3
GER Humanities		3
Upper Division Program Elective		3
	Credits	**15**
Spring		
BIOL A243 or BIOL A273	Experiential Learning: Cell Biology and Genetics or Experiential Learning: Ecology and Evolution	4
GER Humanities		3
GER Intercultural Fluency		3
GER Social Sciences		3
Upper Division Program Elective		3
	Credits	**16**
Third Year		
Fall		
GER Alaska Native-Themed		3
GER Social Sciences		3
Elective		3
Upper Division Program Elective		3
Upper Division Program Elective		3
	Credits	**15**

Spring		
Elective		3
Program Elective: Support Course		3
Upper Division Elective		3
Upper Division Program Elective		3
Upper Division Program Elective		3
	Credits	**15**
Fourth Year		
Fall		
BIOL A492	Undergraduate Seminar	1
GER Integrative Capstone		3
Elective		3
Upper Division Program Elective		3
Upper Division Program Elective: Support Course		3
	Credits	**13**
Spring		
Elective		3
Elective		2-3
Upper Division Elective		2
Upper Division Program Elective		3
Upper Division Program Elective: Support Course		3
	Credits	**13-14**
	Total Credits	**119-121**

Bachelor of Science in Biological Sciences

The Bachelor of Science (BS) in Biological Sciences includes a core program in Biological Sciences with two areas of study, and a core program in Microbiological Sciences. In Biological Sciences, completing courses from the cellular and molecular biology area prepares students for graduate and professional programs in areas such as medicine, dentistry and veterinary science, while completing courses from the organismal, ecology and evolutionary area prepares students for careers and graduate programs in environmental, organismal and evolutionary biology. Completing the Microbiological Sciences option prepares students for careers in infectious disease and epidemiology, environmental conservation and quality analysis, and graduate programs in microbiology, cell biology, molecular biology and other related fields, as well as professional programs such as medical school. It is imperative that students consult academic advisors within the Department of Biological Sciences to determine which electives are most appropriate to their career interests.

Admission Requirements

- Complete the Admission Requirements for Baccalaureate Degrees (p. 46).
- Declare the major (see major requirements below) and select one of two options: biological sciences or microbiological sciences. To choose an option, students must meet with an advisor. To schedule the advising session, contact the Department of Biological Sciences.

Academic Requirements

To graduate with a Bachelor of Science (BS) in Biological Sciences, the student must complete all courses covered under major requirements for a BS in Biological Sciences with a minimum grade of C. All prerequisites for Biology (BIOL) courses must be completed with a minimum grade of C. Students who audit or are unable to earn a minimum grade of C in a lower-division (100- or 200-level) BIOL course may repeat the course two additional times on a space available basis. Students who audit or are unable to earn a minimum grade of C in an upper-division (300- or 400-level) BIOL or Microbiology (MBIO) course may repeat the course one additional time on a space-available basis. Students repeating a BIOL or MBIO course are required to complete all components of that course during the semester in which the course is retaken. When repeating a course with a lecture and laboratory component, both components must be repeated. Students enrolled in a BIOL or MBIO laboratory or experiential learning course must attend the lab or course the first week of class or they may be administratively dropped.

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (p. 442).
- Complete the General Education Requirements for Baccalaureate Degrees (p. 443).
- Complete an exit examination.
- Complete the following major requirements with a minimum grade of C:

Biological Sciences Option

Code	Title	Credits
Required Support Courses		
CHEM A105 & A105L	General Chemistry I and General Chemistry I Laboratory	4
CHEM A106 & A106L	General Chemistry II and General Chemistry II Laboratory	4
CHEM A321	Organic Chemistry I	3
CHEM A322	Organic Chemistry II	3
CHEM A323L	Organic Chemistry Laboratory	2
MATH A251	Calculus I	4-6
or MATH A251F	F.A.T. Calculus I	
MATH A252	Calculus II	4-6
or MATH A252F	F.A.T. Calculus II	
STAT A253	Applied Statistics for the Sciences	4
or STAT A307	Probability and Statistics	
Select one of the following options:		8
Option 1:		
PHYS A123 & A123L	College Physics I and College Physics I Laboratory	
PHYS A124 & A124L	College Physics II and College Physics II Laboratory	

Option 2:		
PHYS A211 & A211L	General Physics I and General Physics I Laboratory	
PHYS A212 & A212L	General Physics II and General Physics II Laboratory	
Core Courses		
BIOL A108	Principles and Methods in Biology	6
BIOL A242	Fundamentals of Cell Biology	3
BIOL A243	Experiential Learning: Cell Biology and Genetics	4
or BIOL A273	Experiential Learning: Ecology and Evolution	
BIOL A252	Principles of Genetics	3
BIOL A271	Principles of Ecology	3
BIOL A288	Principles of Evolution	3
BIOL A492	Undergraduate Seminar	1
Upper-Division Program Electives		**24**
Complete a minimum of 3 credits from four of the five subject areas. A minimum of 6 credits must be experiential learning courses from two subject areas. [1]		
Genetics, Cellular and Molecular Biology		
BIOL A452	Human Genome	
BIOL A455	Experiential Learning: Bioinformatics	
BIOL A461	Molecular Biology	
BIOL A463	Molecular Biology of Cancer	
BIOL A465	Experiential Learning: Molecular Biology	
BIOL/CHEM A471	Immunology	
MBIO A340	Microbial Biology	
MBIO A342	Experiential Learning: Microbial Biology	
MBIO A460	Host-Microbiome Interactions	
MBIO A462	Virology	
Ecology and Evolution		
BIOL A430	Marine Mammal Biology	
BIOL A441	Animal Behavior	
BIOL A442	Experiential Learning: Animal Behavior	
BIOL A467	Wildlife Ecology	
BIOL A472	Biogeography	
BIOL A473	Conservation Biology	
BIOL/CHEM A474	Ecotoxicology	
BIOL A477	Tundra and Taiga Ecosystems	
BIOL A478	Biological Oceanography	
BIOL A481	Marine Biology	
BIOL A483	Exploration Ecology	
BIOL A484	Experiential Learning: Exploration Ecology Field Study	
BIOL A486	Evolutionary Ecology	
MBIO A450	Microbial Ecology	
MBIO/GEOL A468	Geomicrobiology	
MBIO A470	Ecology and Evolution of Infectious Disease	
Diversity and Organismal Biology		
BIOL A320	Vertebrate Biology	
BIOL A321	Experiential Learning: Vertebrate Biology	
BIOL A330	Plant Biology	
BIOL A423	Ichthyology	
BIOL A427	Marine Invertebrate Biology	
BIOL A430	Marine Mammal Biology	
BIOL A431	Plant Diversity and Evolution	
BIOL A487	Comparative Anatomy of Vertebrates	
MBIO A340	Microbial Biology	
MBIO A342	Experiential Learning: Microbial Biology	
MBIO A440	Microbial Diversity	
Physiology		
BIOL A310	Principles of Animal Physiology	
BIOL A311	Experiential Learning: Animal Physiology	
BIOL A412	Behavioral Endocrinology	
BIOL A413	Neurophysiology	
BIOL A415	Comparative Animal Physiology	
BIOL A417	Applied Kinesiology and Exercise Physiology	
BIOL A418	Fish Physiology	
BIOL A419	Sleep and Chronobiology	
BIOL A487	Comparative Anatomy of Vertebrates	
MBIO A410	Microbial Physiology	
Additional Upper-Division Electives		
BIOL A490	Selected Lecture Topics in Biology	
BIOL A495	Instructional Practicum: Laboratory	
BIOL A497	Independent Study in Biology	
BIOL A498	Individual Research [1]	
BIOL A499	Senior Thesis [1]	
CHEM A441	Principles of Biochemistry I	
CHEM A442	Principles of Biochemistry II	
CHEM A443	Biochemistry Laboratory	
PHYS/BIOL/CHEM A456	Nonlinear Dynamics and Chaos	
Total		**83-87**

Microbiological Sciences Option

Code	Title	Credits
Required Support Courses		
CHEM A105 & A105L	General Chemistry I and General Chemistry I Laboratory	4
CHEM A106 & A106L	General Chemistry II and General Chemistry II Laboratory	4
CHEM A321	Organic Chemistry I	3
CHEM A322	Organic Chemistry II	3
CHEM A323L	Organic Chemistry Laboratory	2
MATH A251	Calculus I	4-6
or MATH A251F	F.A.T. Calculus I	
MATH A252	Calculus II	4-6
or MATH A252F	F.A.T. Calculus II	
STAT A253	Applied Statistics for the Sciences	4
or STAT A307	Probability and Statistics	
Select one of the following options:		8
Option 1:		
PHYS A123 & A123L	College Physics I and College Physics I Laboratory	
PHYS A124 & A124L	College Physics II and College Physics II Laboratory	
Option 2:		
PHYS A211 & A211L	General Physics I and General Physics I Laboratory	
PHYS A212 & A212L	General Physics II and General Physics II Laboratory	
Core Courses		
BIOL A108	Principles and Methods in Biology	6
BIOL A242	Fundamentals of Cell Biology	3
BIOL A243	Experiential Learning: Cell Biology and Genetics	4
or BIOL A273	Experiential Learning: Ecology and Evolution	
BIOL A252	Principles of Genetics	3
BIOL A271	Principles of Ecology	3
BIOL A288	Principles of Evolution	3
BIOL A455	Experiential Learning: Bioinformatics	4
BIOL A492	Undergraduate Seminar	1
MBIO A340	Microbial Biology	3
MBIO A342	Experiential Learning: Microbial Biology	4
MBIO A440	Microbial Diversity	3
or MBIO A450	Microbial Ecology	
or MBIO A468	Geomicrobiology	
MBIO A460	Host-Microbiome Interactions	3
or MBIO A462	Virology	
or BIOL A471	Immunology	
Upper-Division Program Electives in Microbiology		**9**
Complete a minimum of 9 credits from the Upper-Division Program Electives in Microbiology. Only 3 credits of BIOL A495, BIOL A497, BIOL A498, or BIOL A499 can count toward this 9 credit requirement. [1]		
BIOL A461	Molecular Biology	
BIOL A465	Experiential Learning: Molecular Biology	
BIOL A471	Immunology	
BIOL A490	Selected Lecture Topics in Biology	
BIOL A495	Instructional Practicum: Laboratory	
BIOL A497	Independent Study in Biology	
BIOL A498	Individual Research	
BIOL A499	Senior Thesis	
CHEM A441	Principles of Biochemistry I	
CHEM A442	Principles of Biochemistry II	
CHEM A443	Biochemistry Laboratory	
MBIO A410	Microbial Physiology	
MBIO A440	Microbial Diversity	
MBIO A450	Microbial Ecology	
MBIO A460	Host-Microbiome Interactions	
MBIO A462	Virology	
MBIO A468	Geomicrobiology	
MBIO A470	Ecology and Evolution of Infectious Disease	
Total		**85-89**

[1] *Several courses are listed in more than one area. Each course can only count toward the credit requirement in one area. BIOL A498 credits may not be counted toward the experiential learning minimum requirement in the Biological Sciences option.*

A minimum of 120 credits is required for the degree, 39 credits of which must be upper-division.

Biological Sciences Exit Examination

All BS Biological Sciences majors are required to complete a nationally standardized exit examination during the semester immediately prior to or during the semester they intend to graduate. There is no minimum score required for graduation.

Honors in Biological Sciences

The Bachelor of Science (BS) in Biological Sciences recognizes distinguished achievement by conferring programmatic honors in biological sciences. In order to receive honors in biological sciences, a student must meet the following requirements:

- Meet the requirements for Graduation with Honors (p. 30);
- Meet the requirements for a BS in Biological Sciences;
- Earn a minimum GPA of 3.50 in the major requirements;

- During the senior year of their academic program, the student must gain faculty approval for and complete, with a minimum grade of B, a senior thesis research project, with enrollment in BIOL A499. Biological science faculty members must approve the project proposal and final written report.

Program Student Learning Outcomes

Students graduating with a Bachelor of Arts or a Bachelor of Science in Biological Sciences will be able to:

- Demonstrate an understanding of the core concepts in the biological sciences: evolution; structure and function relationships; information flow, exchange and storage; transformation of energy and matter.
- Apply the process of science and construct knowledge through observations, experimentation, quantitative reasoning and hypothesis testing.
- Read, analyze and synthesize primary literature, and communicate scientific concepts and data in written and oral form.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
CHEM A105 & A105L	General Chemistry I and General Chemistry I Laboratory	4
MATH A251	Calculus I	4
WRTG A111	Writing Across Contexts	3
GER Fine Arts		3
GER Oral Communication Skills		3
	Credits	**17**
Spring		
BIOL A108	Principles and Methods in Biology	6
CHEM A106 & A106L	General Chemistry II and General Chemistry II Laboratory	4
MATH A252	Calculus II	4
WRTG A213	Writing and the Sciences	3
	Credits	**17**
Second Year		
Fall		
BIOL A242	Fundamentals of Cell Biology	3
BIOL A252	Principles of Genetics	3
CHEM A321	Organic Chemistry I	3
STAT A253 or STAT A307	Applied Statistics for the Sciences or Probability and Statistics	4
GER Social Sciences		3
	Credits	**16**
Spring		
BIOL A243 or BIOL A273	Experiential Learning: Cell Biology and Genetics or Experiential Learning: Ecology and Evolution	4
BIOL A271	Principles of Ecology	3
CHEM A322	Organic Chemistry II	3
GER Humanities		3
Upper Division Program Elective (MBIO A340 for Microbiological Science option)		3
	Credits	**16**
Third Year		
Fall		
BIOL A288	Principles of Evolution	3
CHEM A323L	Organic Chemistry Laboratory	2
PHYS A123 & A123L	College Physics I and College Physics I Laboratory	4
GER Humanities		3
Upper Division Program Elective		3
	Credits	**15**

Spring		
PHYS A124 & A124L	College Physics II and College Physics II Laboratory	4
GER Social Sciences		3
Upper Division Program Elective (BIOL A455 for Microbiological Sciences Option)		3
Upper Division Program Elective (MBIO A342 for Microbiological Sciences Option)		3
	Credits	**13**
Fourth Year		
Fall		
BIOL A492	Undergraduate Seminar	1
GER Integrative Capstone		3
GER Intercultural Fluency		3
Upper Division Program Elective		3
Upper Division Program Elective (MBIO A460 or MBIO A462 or BIOL A471 for Microbiological Sciences Option)		3
	Credits	**13**
Spring		
GER Alaska Native-Themed		3
Elective (Not needed for Microbiological Sciences option)		1
Upper Division Elective		3
Upper Division Program Elective		3
Upper Division Program Elective (MBIO A440 or MBIO A450 or MBIO A468 for Microbiological Sciences option)		3
	Credits	**13**
	Total Credits	**120**

Bachelor of Science in Chemistry

Admission Requirements

- Complete the Admission Requirements for Baccalaureate Degrees (p. 46).

Advising

Students are strongly encouraged to talk to a faculty advisor in the Chemistry Department to ensure that the necessary math and science courses are taken in the first two years of study.

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (p. 442).
- Complete the General Education Requirements for Baccalaureate Degrees (p. 443).
- Complete the following major requirements with a minimum grade of C:

Students complete a BS in Chemistry with a biochemistry emphasis.

Code	Title	Credits
BIOL A108	Principles and Methods in Biology	6
BIOL A242	Fundamentals of Cell Biology	3
BIOL A243	Experiential Learning: Cell Biology and Genetics	4
BIOL A252	Principles of Genetics	3
BIOL A461	Molecular Biology	3
or BIOL A465	Experiential Learning: Molecular Biology	
CHEM A105 & A105L	General Chemistry I and General Chemistry I Laboratory	4
CHEM A106 & A106L	General Chemistry II and General Chemistry II Laboratory	4
CHEM A208	Principles of Bioinorganic Chemistry	3
CHEM A218	Experiential Learning: Quantitative Chemical Analysis	5
CHEM A321	Organic Chemistry I	3
CHEM A322	Organic Chemistry II	3
CHEM A323L	Organic Chemistry Laboratory	2
CHEM A411	Biophysical Chemistry	3
CHEM A418	Experiential Learning: Chemical Instrumentation and Methods	5
CHEM A441	Principles of Biochemistry I	3
CHEM A442	Principles of Biochemistry II	3
CHEM A443	Biochemistry Laboratory	2
CHEM A481	Experiential Learning: Undergraduate Seminar I	1
CHEM A482	Experiential Learning: Undergraduate Seminar II	2
MATH A155	Precalculus	5
MATH A251	Calculus I	4-6
or MATH A251F	F.A.T. Calculus I	
STAT A253	Applied Statistics for the Sciences	4
Complete a PHYS sequence:		8
PHYS A123 & A123L	College Physics I and College Physics I Laboratory	
PHYS A124 & A124L	College Physics II and College Physics II Laboratory	
or		
PHYS A211 & A211L	General Physics I and General Physics I Laboratory	
PHYS A212 & A212L	General Physics II and General Physics II Laboratory	
Complete 13 credits from the following upper-division electives:		13
BIOL A310	Principles of Animal Physiology	
BIOL A412	Behavioral Endocrinology	
BIOL A413	Neurophysiology	
BIOL A452	Human Genome	

BIOL A463	Molecular Biology of Cancer
BIOL A465	Experiential Learning: Molecular Biology
BIOL/CHEM A474	Ecotoxicology
BIOL A498	Individual Research
CHEM/BIOL A471	Immunology
CHEM A495	Chemistry Internship
CHEM A498	Individual Research
MBIO A340	Microbial Biology
MBIO A342	Experiential Learning: Microbial Biology
MBIO A410	Microbial Physiology
MBIO A462	Virology
PHYS A303	Modern Physics
PHYS A320	Simulation of Physical Systems
PHYS A403	Quantum Mechanics
PSY A370	Behavioral Neuroscience

A minimum of 120 credits is required for the degree, of which 39 credits must be upper division.

Honors in Chemistry

The Department of Chemistry awards departmental honors in chemistry to undergraduate students who show exceptional performance in all their coursework. To graduate with honors students must:

- Satisfy all requirements for a Bachelor of Science in Chemistry;
- Meet the requirements for Graduation with Honors (p. 30);
- Maintain a minimum GPA of 3.50 in chemistry (CHEM) classes;
- Complete, with distinction, a written assignment in the style of a chemical journal based on the research performed in CHEM A498;
- Notify the Departmental Honors Committee in writing at the time they file their Application for Graduation with the Office of the Registrar that they intend to graduate with departmental honors.

Program Student Learning Outcomes

Students graduating with a Bachelor of Science in Chemistry will be able to:

- Evaluate and critically solve problems related to the chemical sciences and communicate those solutions.
- Develop proficiency in scientific inquiry including laboratory technique, data analysis, literature review, and experimental design.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
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- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type..

First Year		
Fall		**Credits**
CHEM A105 & A105L	General Chemistry I and General Chemistry I Laboratory	4
MATH A155	Precalculus	5
WRTG A111	Writing Across Contexts	3
GER Fine Arts		3
GER Oral Communication Skills		3
	Credits	**18**
Spring		
BIOL A108	Principles and Methods in Biology	6
CHEM A106 & A106L	General Chemistry II and General Chemistry II Laboratory	4
MATH A251	Calculus I	4
WRTG A213	Writing and the Sciences	3
	Credits	**17**
Second Year		
Fall		
BIOL A242	Fundamentals of Cell Biology	3
CHEM A218	Experiential Learning: Quantitative Chemical Analysis	5
CHEM A321	Organic Chemistry I	3

STAT A253	Applied Statistics for the Sciences	4
	Credits	**15**
Spring		
BIOL A252	Principles of Genetics	3
CHEM A322	Organic Chemistry II	3
CHEM A418	Experiential Learning: Chemical Instrumentation and Methods	5
PHYS A123 & A123L	College Physics I and College Physics I Laboratory	4
	Credits	**15**
Third Year		
Fall		
BIOL A243	Experiential Learning: Cell Biology and Genetics	4
CHEM A323L	Organic Chemistry Laboratory	2
CHEM A441	Principles of Biochemistry I	3
PHYS A124 & A124L	College Physics II and College Physics II Laboratory	4
GER Humanities		3
	Credits	**16**
Spring		
CHEM A442	Principles of Biochemistry II	3
CHEM A443	Biochemistry Laboratory	2
GER Humanities		3
GER Social Sciences		3
Upper Division Program Elective		3
	Credits	**14**
Fourth Year		
Fall		
BIOL A461 or BIOL A465	Molecular Biology or Experiential Learning: Molecular Biology	3-4
CHEM A208	Principles of Bioinorganic Chemistry	3
CHEM A481	Experiential Learning: Undergraduate Seminar I	1
GER Alaska Native-Themed		3
GER Social Sciences		3
Upper Division Program Elective		3
	Credits	**16-17**
Spring		
CHEM A411	Biophysical Chemistry	3
CHEM A482	Experiential Learning: Undergraduate Seminar II	2
GER Intercultural Fluency		3
Upper Division Program Elective		3
Upper Division Program Elective		4
	Credits	**15**
	Total Credits	**126-127**

Minor in Children's Mental Health

Students who wish to minor in children's mental health must complete the following requirements:

Code	Title	Credits
Complete one of the following two courses:		3
EDEC A107	Child Development and Learning	
PSY A365	Child and Adolescent Development	
Complete one of the following two courses:		3
PSY A348	Infant and Early Childhood Mental Health	
PSY A442	Psychopathology of Childhood and Adolescence	
Complete one of the following two courses:		3
HUMS A207	Trauma Informed Work with Children	
SWK A410	Trauma in Childhood	
Complete 9 credits of electives focused on children approved by the Children's Mental Health Minor Committee (including special topics courses focused on children). This may include up to 6 credits of relevant practica or research coursework. [1]		9
Total		**18**

[1] *Practica and research coursework (e.g., independent studies, honors or other undergraduate theses) can consist of offerings by various programs but must provide experiences focused on children and be approved in advance by the Children's Mental Health Minor Committee.*

A minimum of 18 credits is required for the minor, of which 6 credits must be upper-division.

Occupational Endorsement Certificate in Conservation Ecology

This program is delivered only through Kenai Peninsula College.

The Occupational Endorsement Certificate (OEC) in Conservation Ecology prepares students to learn about conservation ecology in a hands-on environment in Alaska where climate change is being witnessed. Though this program of study will be based on ecological theory covered in lecture courses, the focus will be on exploring real-world application of conservation research. Through internships and seminars, students will work with government and non-profit professionals that are doing real-time data collection in environmental conservation.

Admission Requirements

- Complete the Admission Requirements for Occupational Endorsement Certificates (p. 46).
- Complete the Semester by the Bay OEC student application form.

- Qualitative experience(s) in ecology - prerequisite course in Principles of Ecology, Environmental Science, or Program Chair waiver based on relevant experience as demonstrated in student entrance essay and/or artifact submission.

Special Considerations

- Lifting up to 22 kilograms for some projects
- Working in inclement weather and/or for extended periods of time for some courses
- Working in remote field settings for some projects
- Traveling to remote field sites for some courses

Graduation Requirements

- Complete the General University Requirements for Occupational Endorsement Certificates (p. 440).
- Complete the following major requirements with minimum grade of C:

Code	Title	Credits
BIOL A446	Global Climate Change	3
BIOL A473	Conservation Biology	3
BIOL A483	Exploration Ecology	2
BIOL A484	Experiential Learning: Exploration Ecology Field Study	4
BIOL A495A	Internship in the Biological Sciences	3
ENGL/JPC A278	Sharing Science with Diverse Audiences	1
ENGL/JPC A278L	Sharing Science with Diverse Audiences Lab	1
Total		**17**

A minimum of 17 credits is required for the certificate.

Program Student Learning Outcomes

Students graduating with an Occupational Endorsement Certificate in Conservation Ecology will be able to:

- Describe and apply basic tenets of conservation ecology and climate change
- Design and implement a research project to examine applied ecology in the field
- Describe current issues associated with ecological conservation in Alaska
- Demonstrate common field and lab skills used by conservation ecologists, as well as ways to communicate science to diverse audiences
- Describe effective ways to convey scientific information to a variety of audiences
- Demonstrate effective ways to share science across written, online, audio, and video platforms, both online and in person

Minor in Creative Writing

The programs offered by the Department of English prepare students to succeed in an increasingly diverse world by encouraging lifelong learning, critical thinking, and effective writing. The curriculum includes courses from across the fields of English studies: rhetoric, writing, linguistics, and literature.

Students who wish to minor in creative writing must complete the following requirements:

Code	Title	Credits
ENGL A121	Introduction to Literature	3
or ENGL A200	Global Literature and Culture	
ENGL A260	Introduction to Creative Writing	3
ENGL A385	Creative Writing Workshop	3
Repeat ENGL A260 or ENGL A385 for three (3) additional credits.		3
Complete one of the following courses in literature:		3
ENGL A390B	Literature by Genre	
ENGL A429	Major Authors	
Select one of the following courses in rhetoric and linguistics:		3
ENGL A433	Literacy, Rhetoric and Social Practice	
ENGL A495	Internship in Professional Writing	
Students may apply ENGL A490 Topics in English Studies to the appropriate list above, depending on subject coverage with advisor approval.		
Students may replace 3 credits of the minor with ENGL A498 Individual Research or ENGL A499 English Honors Thesis if the project is a creative work.		
Total		**18**

A minimum of 18 credits is required for the minor.

Minor in Cultural and Natural Resource Management

The Minor in Cultural and Natural Resource Management introduces students to key environmental and cultural issues as well as state and federal programs and laws that regulate cultural and natural resource management. Students focus on Alaska-specific issues and regulations to enhance the relevance of the minor to cultural and natural resource management in the state. The course of study complements degrees in Anthropology, Biology, Civil Engineering, Construction Management, English, Geology, and History by teaching students how their future careers might intersect with environmental and other laws and by building skills that will improve their success in finding employment in environmental, natural, and cultural resource compliance.

Students who wish to minor in Cultural and Natural Resource Management must complete the following requirements with a minimum grade of C:

Code	Title	Credits
Complete 6 credits from these foundational courses:		6
ANTH A211	Archaeology	
or ANTH A101	Introduction to Anthropology	
or ANTH A202	Cultural Anthropology	
ECON A210	Environmental Economics and Policy	
or PHIL A303	Environmental Ethics	
GEOG A111	Discovering Alaska and Earth's Physical Geography: From Weather to Glaciers	
SOC A101	Introduction to Sociology	
or JPC A104	Media Literacy	
or SOC A202	Social Institutions	
Complete the following three core courses:		9
ANTH A454	Culture and Ecology	
or SOC A404	Environmental Sociology	
ANTH A477	Cultural Resource Management	
GEOG A470	Environmental Policy and Regulation in Alaska	
Complete one of the following electives: [1, 2]		3-4
AKNS/PS A346	Alaska Native Politics	
ANTH A431	Field Methods in Archaeology and Bioanthropology [3]	
ANTH A480	Analytical Techniques in Archaeology and Bioanthropology	
BIOL A473	Conservation Biology	
CE A442	Environmental Engineering Design	
CM A422	Sustainability in the Built Environment	
ECON A210	Environmental Economics and Policy	
ENGL A478	Public Science Writing	
GEOG A475	Geospatial and Cartographic Techniques for the Sciences	
GEOL A361	Earth Resources and Society	
HIST A341	History of Alaska	
JPC A362	Principles of Strategic Communications	
Total		**18-19**

A minimum of 18-19 credits is required for the minor.

1 *Many of these courses have prerequisites relevant to the course of study but not included in the minor credit total.*

2 *Other selected topics courses (A290, A390, and A490) that cover topics relevant to cultural or natural resources management may be substituted in this list with department approval.*

3 *ANTH A431 is infrequently offered, typically as a summer field school. Please check with the Department of Anthropology for the schedule.*

Minor in Dance

Students majoring in another subject who wish to minor in dance must complete the following requirements.

Code	Title	Credits
DNCE A170	Dance Appreciation	3
DNCE A262	Theory and Improvisation	3
DNCE A361	Approaches to Dance Composition	3
DNCE A370	Interdisciplinary Dance Studies: Issues and Methods	3
DNCE A395	Advanced Practicum: Performance	2
THR A131	Theatrical Production Techniques	3
Complete 4 credits from the following:		4
DNCE A121	Contemporary Modern I	
DNCE/THR A124	Dance for Musical Theatre I	
DNCE A223	Contemporary Modern II	
DNCE A365	Dance Repertory and Performance I	
Total		**21**

A minimum of 21 credits is required for the minor.

Occupational Endorsement Certificate in Dena'ina Language

The Occupational Endorsement Certificate (OEC) in Dena’ina Language prepares students for learning knowledge, resources, and skills appropriate for a variety of entry-level jobs that use Ahtna Dene language. Students who earn this OEC will be able to certify a level of low intermediate speech ability according to the guidelines of the ACTFL Proficiency Guidelines scale through completion of an oral proficiency assessment. The style of Dena’ina taught in this program is Upper and Inland.

Admission Requirements

- Complete the Admission Requirements for Occupational Endorsement Certificate Programs (p. 46).

Graduation Requirements

- Complete the General University Requirements for Occupational Endorsement Certificates (p. 440).
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
AKNS A101F	Elementary Dena'ina Language I	4
AKNS A102F	Elementary Dena'ina Language II	4
AKNS A114F	Dena'ina Reading and Writing	4
AKNS A292B	Alaska Native Language Conversational Fluency Intensive [1]	1-3

AKNS A240F	Alaska Native Cultural Orientation: Dena'ina	3
Total		**16-18**

[1] *Must be taken in Dena'ina*

A minimum of 16 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with an Occupational Endorsement Certificate in Dena'ina Language will be able to:

- Demonstrate low intermediate speaking proficiency, with conversational speaking skills as described in the ACTFL Guidelines standards.
- Read and comprehend basic Dena’ina, including words and sentences pertaining to everyday topics, at a level comparable to their speaking proficiency on ACTFL standards.
- Locate and assess Dena’ina Dene language resources and reference materials for diverse situations and proficiency levels.
- Demonstrate knowledge of Dena’ina history, culture, arts, and issues in the Dena'ina region.
- Examine cross-cultural communication, cultural values, and working with Elders.

Undergraduate Certificate in Dena'ina Language Instruction

The Certificate in Dena’ina Language Instruction prepares students for applying knowledge, resources, and skills appropriate for a variety of entry-level jobs that use Dena’ina Dene language and for teaching beginning Dena’ina Language. Students who earn this certificate will be able to demonstrate a level of low intermediate speech ability and demonstrate proficiency in beginning Dena’ina language instruction. The style of Dena’ina taught in this program is Upper and Inland.

Admission Requirements

- Complete the Admission Requirements for Undergraduate Certificates (p. 46).

Special Considerations

- For students who will complete a field study placement, they will have to be prepared to complete a background check if their site requires one.

Graduation Requirements

- Complete the General University Requirements for Undergraduate Certificates (p. 441).
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
AKNS A101F	Elementary Dena'ina Language I	4
AKNS A102F	Elementary Dena'ina Language II	4
AKNS A114F	Dena'ina Reading and Writing	4
AKNS A240F	Alaska Native Cultural Orientation: Dena'ina	3
AKNS A292B	Alaska Native Language Conversational Fluency Intensive [1]	1-3
AKNS A301	Introduction to Indigenous Language Revitalization	3
AKNS A395	Native Language Instructor Practicum	3
AKNS A421	Indigenous Language Curriculum Design & Instruction	3
AKNS A495A	Indigenous Language Instructor Internship	3
Total		**28-30**

[1] *Must be in Dena'ina Language*

A minimum of 30 credits is required for the certificate.

Program Student Learning Outcomes

Students graduating with an Undergraduate Certificate in Dena'ina Language Instruction will be able to:

- Demonstrate low intermediate speaking proficiency, with conversational speaking skills as described in the ACTFL Guidelines standards.
- Read and comprehend basic Dena’ina, including words and sentences pertaining to everyday topics, at a level comparable to their speaking proficiency on ACTFL standards.
- Locate and assess Dena’ina Dene language resources and reference materials for diverse situations and proficiency levels.
- Demonstrate knowledge of Dena’ina history, culture, arts, and issues in the Dena'ina region.
- Examine cross-cultural communication, cultural values, and working with Elders.
- Write beginner lessons in Dena’ina language
- Deliver beginner lessons in Dena’ina language in classroom settings.

Bachelor of Arts in English

The programs offered by the Department of English prepare students to succeed in an increasingly diverse world by encouraging lifelong learning, critical thinking, and effective writing. The curriculum includes courses from across the fields of English studies: rhetoric, writing, linguistics, and literature.

The Bachelor of Arts (BA) in English prepares students for graduate study in fields such as English and linguistics or professional school in fields such as secondary English education and law, or for work in any career that involves writing and reasoning. Graduates of the program have gone on to further study and jobs in fields as diverse as secondary school teaching, professional and technical writing, journalism, consulting, and more.

Admission Requirements

- Complete the Admission Requirements for Baccalaureate Degrees (p. 46).

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (p. 442).
- Complete the General Education Requirements for Baccalaureate Degrees (p. 443).
- Complete the following major requirements:

Code	Title	Credits
Introduction to English Studies		
ENGL A209	Fields and Careers in English Studies	3
Foundational Courses		
Complete 9 credits from the following:		9
ENGL A120	Reasoning, Thinking, and Discourse	
ENGL A245	Alaska Native Literatures	
ENGL A260	Introduction to Creative Writing	
LING A201	The Structure and Meanings of Language	
Advanced Inquiry in English Studies		
ENGL A433	Literacy, Rhetoric and Social Practice	3
ENGL A435	Critical Theory	3
ENGL/LING A490D	Selected Topics in Style and Social Innovation	3
Advanced Writing [1]		
Complete 3 credits from the following:		3
ENGL A414	Research Writing	
ENGL A499	English Honors Thesis	
Integrative Capstone		
Complete 3 credits from the following:		3
ENGL/LING A467	The History and Future of Global English	
ENGL A478	Public Science Writing	
ENGL A479	Advanced Studies in Literature	
English Studies Electives		
Complete 18 additional credits of ENGL or LING courses, of which 12 must be upper-division. [2]		18
Total		**45**

[1] *Students may petition to satisfy this requirment with 3 credits of ENGL A498 completed with a creative writing project.*

[2] *Not all courses are offered every semester. Students should meet with their academic advisor to determine the best options to complete their degree.*

A minimum of 120 credits is required for the degree, of which 39 credits must be upper-division.

Honors in English

The Bachelor of Arts in English recognizes distinguished achievement by conferring programmatic honors in English. In order to receive honors in English, a student must:

- Be a declared English major;
- Satisfy all requirements for a BA in English;
- Meet the requirements for Graduation with Honors (p. 30);
- Maintain a minimum GPA of 3.50 in all courses in the English major;
- Complete 6 credits of the following 400-level topics courses with a minimum grade of A:

Code	Title	Credits
ENGL A429	Major Authors	
ENGL A440	Topics in Comparative Literature	
ENGL A490	Topics in English Studies	
ENGL A490A	Selected Topics in Literature	
ENGL A490B	Language in Use	
ENGL A490C	Topics in Native Literatures	

- Complete ENGL A499 with a pass grade on a P/F grading scale.

The honors thesis itself is shaped by these guidelines:

- A student wishing to take ENGL A499 should coordinate the process from the beginning with two faculty members (one considered primary, one secondary), one of whom must be a full-time tenure-track member of the Department of English.
- The secondary faculty member may be from another department with the approval of the primary faculty member. Both faculty members should be involved in the project from early in the process.
- The student is responsible for locating the two faculty members and securing their agreement to become involved in the project.
- The student should meet regularly (about once every couple of weeks) with the primary faculty member guiding the thesis to ensure that the project remains on track.
- The student may well benefit from concurrent enrollment in ENGL A414.
- The process should begin with a proposal of no more than 1,000 words (statement of purpose, preliminary controlling generalization and outline) along with an annotated bibliography of about 10 items. This proposal needs to be approved by both faculty members before the student may proceed to write the honors thesis itself.
- The anticipated length of the project is 7,500-10,000 words (exclusive of reference page[s]).
- The final paper needs to be submitted to the two faculty members by the end of the last week of instruction of the semester during which the student is enrolled in ENGL A499.
- The project should be undertaken in a student’s senior year.

- Successful completion of ENGL A499 (with success defined as a pass for the honors thesis) may be used to count for 3 credits toward the 7 credit requirement of the honors senior project.

Program Student Learning Outcomes

At the conclusion of the program, students will be able to:

- interpret texts in context with reasoned evidence drawn from English Studies' research methods;
- construct texts that are responsive to audience, purpose, genre, and voice; and
- engage scholarly, professional, and public discourse in diverse communities.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year

Fall		**Credits**
WRTG A111	Writing Across Contexts	3
ENGL A121 or ENGL A200 or ENGL A245 or LING A101	Introduction to Literature or Global Literature and Culture or Alaska Native Literatures or How Language Works	3
GER Oral Communication Skills		3
Program Elective (Foundational Course)		3
Program Elective (Foundational Course)		3
	Credits	**15**
Spring		
ENGL A209	Fields and Careers in English Studies	3
WRTG A211	Writing and the Humanities	3
GER Fine Arts		3
GER Quantitative Skills		3
Program Elective (Foundational Course)		3
	Credits	**15**

Second Year

Fall		
ENGL A121 or ENGL A200 or ENGL A245 or LING A101	Introduction to Literature or Global Literature and Culture or Alaska Native Literatures or How Language Works	3
GER Natural Sciences Lecture		3
GER Natural Sciences Lab		1
GER Social Sciences		3
Elective		2
Program Elective (ENGL or LING)		3
	Credits	**15**
Spring		
GER Alaska Native-Themed		3
GER Natural Sciences		3
GER Social Sciences		3
Elective		3
Program Elective (ENGL or LING)		3
	Credits	**15**

Third Year

Fall	
GER Intercultural Fluency	3
Upper Division Elective	3
Upper Division Elective	3
Upper Division Program Elective (ENGL or LING)	3

Upper Division Program Elective (ENGL or LING)		3
	Credits	**15**
Spring		
ENGL A490D/LING A490D		3
Upper Division Elective		3
Upper Division Elective		3
Upper Division Program Elective (ENGL or LING)		3
Upper Division Program Elective (ENGL or LING)		3
	Credits	**15**
Fourth Year		
Fall		
ENGL A433	Literacy, Rhetoric and Social Practice	3
ENGL A435	Critical Theory	3
Elective		3
Elective		3
Elective		3
	Credits	**15**
Spring		
ENGL A414 or ENGL A499	Research Writing or English Honors Thesis	3
ENGL A467/ LING A467 or ENGL A478 or ENGL A479	 or Public Science Writing or Advanced Studies in Literature	3
Elective		3
Elective		3
Elective		3
	Credits	**15**
	Total Credits	**120**

Minor in English

The programs offered by the Department of English prepare students to succeed in an increasingly diverse world by encouraging lifelong learning, critical thinking, and effective writing. The curriculum includes courses from across the fields of English studies: rhetoric, writing, linguistics, and literature.

Students majoring in another subject who wish to minor in English must complete requirements for one of the following emphases.

Linguistics Emphasis

Code	Title	Credits
LING A101	How Language Works	3
LING A201	The Structure and Meanings of Language	3
Complete 12 credits from the following:		12
ANTH A210	Linguistic Anthropology	
ENGL A450	Linguistics and English Language Teaching	
ENGL/LING A490D	Selected Topics in Style and Social Innovation	
ENGL/LING A467	The History and Future of Global English	
ENGL A490B	Language in Use	
Total		**18**

Literature Emphasis

Code	Title	Credits
ENGL A200	Global Literature and Culture	3
ENGL A390B	Literature by Genre	3
ENGL A429	Major Authors	3
ENGL A435	Critical Theory	3
ENGL A490A	Selected Topics in Literature	3
Upper-division English elective		3
Total		**18**

Professional Writing Emphasis

Code	Title	Credits
Complete one of the following:		3
WRTG A212	Writing and the Professions	
WRTG A213	Writing and the Sciences	
WRTG A214	Arguing Across Contexts	
Complete two of the following:		6
ENGL A311	Writing in Public Life	
ENGL A312	Technical Writing and Design	
ENGL A313	Professional Writing	
Complete one of the following:		3
ENGL A414	Research Writing	
ENGL A495	Internship in Professional Writing	
Complete both of the following:		
ENGL A433	Literacy, Rhetoric and Social Practice	3
Upper division elective approved by the Department of English		3
Total		**18**

A minimum of 18 credits is required for the minor.

Bachelor of Arts in Environment and Society

Admission to this program is currently suspended. Contact the College of Arts and Sciences for more information.

Bachelor of Science in Environment and Society

Admission to this program is currently suspended. Contact the College of Arts and Sciences for more information.

Minor in Environmental Studies

This minor is not available.

Occupational Endorsement Certificate in Event Production

The Occupational Endorsement Certificate in Event Production prepares students for a full-time or part-time career in the performing arts, specifically technical theatre or working backstage.

Admission Requirements

- Complete the Admission Requirements for Occupational Endorsement Certificates (p. 46).

Graduation Requirements

- Complete the General University Requirements for Occupational Endorsement Certificates (p. 440).
- Complete the following major requirements:

Code	Title	Credits
Complete 9 credits from the following:		**9**
THR A101	Technical Theatre for the Event Technician	
THR A102	Introduction to Sewing and Wardrobe	
THR A103	Lighting and Beginning Programming	
THR A105	Audio and Sound Engineering for Event Production	
THR A107	Rigging and Fly Crew	
THR A109	Carpentry and Props for Event Production	
THR A295	Theatre Practicum: Technical [1]	
Total		**9**

[1] *A maximum of 3 credits of THR A295 may be applied towards the graduation requirements of this certificate.*

A minimum of 9 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with an Occupational Endorsement Certificate in Event Production will be able to:

- Identify and demonstrate safe practices and safety-related issues in a fast-paced backstage or event production environment.
- Demonstrate skills used by stagehands, or event technicians in multiple disciplines.
- Demonstrate critical thinking and problem-solving skills related to the different areas of event production such as lighting, audio production, rigging and fly, and grip work.
- Demonstrate the ability to effectively communicate and coordinate cross-departmentally with the many different subsets in the production process.

Occupational Endorsement Certificate in Fermentation Science

The Occupational Endorsement Certificate in Fermentation Science prepares students for careers in the commercial production of fermented foods and beverages. Students gain the skills and knowledge necessary for successful entry-level employment in the industry through hands-on training and coursework.

Admission Requirements

- Complete the Admission Requirements for Occupational Endorsement Certificates (p. 46).

Special Considerations

- Students should be aware that BIOL A395 is required, which is a supervised internship.
- Requires students to be 21 years or older in order to complete the required internship and enroll in certain required courses.

Graduation Requirements

- Complete the General University Requirements for Occupational Endorsement Certificates (p. 440).
- Complete the following major requirements:

Code	Title	Credits
BIOL A102	Introductory Biology	3
BIOL A103	Introductory Biology Laboratory	1
BIOL A110	Survey of Brewing and Fermentation Science	2
BIOL A395	Internship in Fermentation Sciences [1]	3
CA A104	Sanitation	2
CA A114	Beverage Management [1]	3
MBIO A200	Experiential Learning in Fermentation Science	2
MBIO A251	Microbiology of Fermented Foods and Beverages	2
Complete 9 credits from the following: [2]		9
BA A151	Business Foundations	
BA A166	Entrepreneurship and Small Business Management	
BA A231	Fundamentals of Supervision	
BA A241	Business Law I	

BA A280	Managerial Communications
BA A300	Organizational Theory and Behavior
BADA A110	Computer Concepts in Business
CA A490	Current Topics in Food and Hospitality [3]
CHEM A103	Introduction to General Chemistry
CHEM A103L	Introduction to General Chemistry Laboratory
CHEM A104	Introduction to Organic and Biochemistry
CHEM A104L	Introduction to Organic and Biochemistry Laboratory
COMM A111	Fundamentals of Oral Communication
HA A105	Introduction to Hospitality Administration
HA A405	Hospitality Leadership and Ethics
JPC A362	Principles of Strategic Communications
MATH A121	Applied College Algebra
MATH A151	College Algebra for Calculus
PHYS A123	College Physics I
PHYS A123L	College Physics I Laboratory
RH A101	Refrigeration and Air Conditioning I
RH A122	Refrigeration and Air Conditioning II
WRTG A111	Writing Across Contexts
Total	**27**

[1] *Must be aged 21 years or older by first day of class.*

[2] *Some electives have prerequisites that must be satisfied before a student can register while other electives do not.*

[3] *A maximum of 3 credits in CA A490 may be applied toward this certificate.*

A minimum of 27 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with an Occupational Endorsement Certificate in Fermentation Science will be able to:

- Define the quality attributes of fermented foods and beverages and connect these key contributors to specific examples.
- Summarize and explain the chemistry and microbiology of fermentation and brewing.
- Identify and practice the technical aspects of commercial brewing.
- Communicate effectively in a variety of contexts and formats.

Bachelor of Science in Geological Sciences

Admission Requirements

- Complete the Application and Admission Requirements for Baccalaureate Programs (p. 46).

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (p. 442).
- Complete the General Education Requirements for Baccalaureate Degrees (p. 443).
- Students who audit a Geology (GEOL) course or who are unable to earn a minimum grade of C may repeat the course. All prerequisites for GEOL courses must be completed with a minimum grade of C.
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
Support Courses		
CHEM A105 & A105L	General Chemistry I and General Chemistry I Laboratory	4
CHEM A106 & A106L	General Chemistry II and General Chemistry II Laboratory	4
MATH A251	Calculus I [1]	4-6
or MATH A251F	F.A.T. Calculus I	
PHYS A123 & A123L	College Physics I and College Physics I Laboratory	4
PHYS A124 & A124L	College Physics II and College Physics II Laboratory	4
Core Courses		
GEOL A121	Physical Geology for Science and Engineering Majors	4
or GEOL A111 & A111L	Planet Earth and Planet Earth Laboratory	
or GEOL A115 & A115L	Dangerous Earth and Dangerous Earth Laboratory	
GEOL A221	Journey Through Time	4
GEOL A225	Earth Surface Processes	3
GEOL A310	Professional Practices in Geology	3
GEOL A315	Geological Data Visualization and Analysis	3
GEOL A321	Mineralogy	4
GEOL A322	Igneous and Metamorphic Petrology	4
GEOL A331	Sedimentology and Stratigraphy	4
GEOL A335	Structural Geology	4
GEOL A345	Hydrogeology	3
GEOL A461	Geochemistry	3

GEOL A476	Applied Geophysics	3
Complete 6 credits from the following:		6
GEOL A480	Geologic Field Methods	
Geology field camp [2]		
Electives		
Complete 12 credits from the following:		12
GEOL A320	Volcanology	
GEOL A333	Earthquakes and Seismic Hazards	
GEOL A350	Geomorphology	
GEOL A361	Earth Resources and Society	
GEOL A436	Petroleum Geology	
GEOL A437	Depositional Systems and Dynamic Stratigraphy	
GEOL A441	Paleoclimatology	
GEOL A444	The Cryosphere	
GEOL A448	Structural Geology and Geomechanics	
GEOL A463	Environmental Geochemistry	
GEOL A465	Isotope Geochemistry	
GEOL/MBIO A468	Geomicrobiology	
GEOL A477	Integrated Subsurface Mapping and Analysis	
GEOL A480	Geologic Field Methods [3]	
GEOL A490	Advanced Topics in Geology	
GEOL A492	Geology Seminar	
GEOL A495	Geology Internship	
GEOL A498	Student Research	
GEOL A499	Senior Thesis	
Total		**80-82**

[1] *Additionally, MATH A252 or MATH A252F is highly recommended for students majoring in geological sciences.*

[2] *Geology field camps offered through other accredited academic institutions must be approved by the Department of Geological Sciences. Credits must be transferable to UAA from the academic institution that is offering the course and must be completed with a minimum grade of 2.00.*

[3] *GEOL A480 may be applied toward recommended electives if it is not being applied to satisfy core requirements.*

Code	Title	Credits
Environmental Geological Track		
Students wishing to receive a degree with an environmental geological sciences track should complete the above electives requirement with 12 credits from the following courses:		12
GEOL A333	Earthquakes and Seismic Hazards	
GEOL A350	Geomorphology	
GEOL A361	Earth Resources and Society	
GEOL A436	Petroleum Geology	
GEOL A441	Paleoclimatology	
GEOL A444	The Cryosphere	
GEOL A448	Structural Geology and Geomechanics	
GEOL A463	Environmental Geochemistry	
GEOL A465	Isotope Geochemistry	
GEOL A495	Geology Internship	
Total		**12**

A minimum of 120 credits is required for the degree, of which 39 must be upper-division credits.

Honors in Geological Sciences

The Department of Geological Sciences offers recognition to students who demonstrate exceptional promise in the science by awarding them with departmental honors in geological sciences. To graduate with departmental honors, the student must be a declared geological sciences major and meet the following requirements:

- Satisfy all requirements for a BS in Geological Sciences;
- Maintain a minimum cumulative GPA of 3.50;
- Complete 6 credits of GEOL A499, or 3 credits of GEOL A498 and 3 credits of GEOL A499, with a minimum grade of B;
- Students intending to graduate with departmental honors must notify the departmental honors committee in writing on or before the date they file their Application for Graduation with the Office of the Registrar.

Program Student Learning Outcomes

The curriculum of the UAA Geological Sciences program is designed to produce graduates who:

- Have a basic knowledge of the principles related to the geological sciences with either an emphasis in environmental geology or general geology.
- Have an understanding of how to think scientifically and apply their knowledge to solve geologic problems.
- Have sufficient competence to obtain employment as an entry-level geologist or environmental geologist, and be able to progress professionally within the discipline and are prepared for advanced study.
- Have a fundamental understanding of Alaskan geology and environmental problems in Alaska.
- Are able to communicate their ideas.
- Are prepared for and understand the need for continued professional development throughout their careers.

In keeping with the objectives, it is expected that graduates of the UAA Geological Sciences program will have:

- An ability to apply their knowledge of general geology and/or environmental geology.
- An ability to accept challenges and think through problems until they are solved.
- An ability to design and conduct projects that include field work, laboratory analyses and interpretation in their area of emphasis.

- Experience in field geology in Alaska.
- An ability to communicate effectively.
- A recognition of the need for, and ability to pursue, lifelong learning.

Occupational Endorsement Certificate in Graphic Design

The Occupational Endorsement Certificate (OEC) in Graphic Design prepares students for employment as Graphic Designers, Creative Directors, Advertising Art Directors, Web Designers and Packaging Designers.

Admission Requirements

- Complete the Admission Requirements for Occupational Endorsement Certificates (p. 46).

Graduation Requirements

- Complete the General University Requirements for Occupational Endorsement Certificates (p. 440).
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
ART A111	Two-Dimensional Design	3
ART A252	Beginning Graphic Design	3
ART A257	Computer Art	3
ART A352	Intermediate Graphic Design	3
JPC A104	Media Literacy	3
JPC A210	Infographics, Data Visualization and Strategy	3
or JPC A213	Digital Imaging	
JPC A345	Web Design	3
JPC A362	Principles of Strategic Communications	3
or JPC A366	Planning and Writing for Strategic Communications	
Total		**24**

A minimum of 24 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with an Occupational Endorsement Certificate in Graphic Design will be able to:

- Exhibit a thoughtful application of the elements and principles of visual organization, color theory, information hierarchy, and typography to successfully communicate stories, concepts, emotion across a variety of media.
- Understand contemporary and historical tools, technology and theories, including their roles in the creation, production, and distribution of visual messages.
- Create solutions to communication problems that take into consideration diverse audiences and contexts.
- Demonstrate critical thinking and problem-solving skills in developing design strategies for producing logo designs, advertising layouts and promotional material for the commercial market and non-profit market.

Bachelor of Arts in History

Admission Requirements

- Complete the Admission Requirements for Baccalaureate Programs (p. 46).

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (p. 442).
- Complete the General Education Requirements for Baccalaureate Degrees (p. 443).
- Complete the following major requirements:

Code	Title	Credits
HIST A101	Western Civilization Before 1650	3
HIST A102	Europe in the Modern World	3
HIST A131	History of the United States I	3
HIST A132	History of the United States II	3
Complete 6 credits of the following non-Western history courses:		6
HIST A121	The Making of East Asian Civilization	
HIST A122	East Asia in the Modern World	
HIST A321	Modern China	
HIST A322	Modern Japan	
HIST/INTL/PS A325	Northeast Asia in 21st Century	
HIST A330	Russia in East Asia	
HIST A336	Latin America to 1800	
HIST A338	Modern Latin America: Revolutions, Dictatorships, and Democracy	
HIST A390	Themes in World History [1]	
HIST A420	The Rise, Fall, and Reinvention of the Samurai	
HIST A422	"Communist" China	
Complete 15 credits of upper division history electives		15
HIST A377	Historiography: The Uses and Abuses of History	3
HIST A477	Senior Seminar	3

[1] *May be repeated once with a change in subtitle.*

A minimum of 120 credits is required for the degree, of which 39 credits must be upper division.

Honors in History

The award of honors in history recognizes distinguished achievement by undergraduate majors in the study and writing of history.

To be eligible for departmental honors a student must satisfy the following requirements:

- Be a declared history major;
- Satisfy all the requirements for a Bachelor of Arts in History;
- Meet the requirements for Graduation with Honors (p. 30);
- Maintain a minimum GPA of 3.50 in courses specific to the history major;
- Complete HIST A377 with a grade of A.
- Complete HIST A477 paper with a grade of A.

Honors designees in history must submit a typographically correct, formal copy of their senior paper to the department for deposit in the departmental archives. This must be done before graduation day of the year in which the paper is completed.

Program Student Learning Outcomes

The desired student learning outcomes for the Department of History are:

- Demonstrate the ability to write clear and precise English.
- Demonstrate advanced level historical research skills (proper use of historical citation style, critical use of primary and secondary sources, adequate research base, ability to frame a good historical question).
- Demonstrate advanced historical skills (recognition of significance, cause and effect, continuity v. discontinuity, historiographical conversancy and perspective, critical and integrative thinking).

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
HIST A101	Western Civilization Before 1650	3
HIST A131	History of the United States I	3
WRTG A111	Writing Across Contexts	3
GER Oral Communication Skills		3
GER Quantitative Skills		3
	Credits	**15**
Spring		
HIST A102	Europe in the Modern World	3
WRTG A211	Writing and the Humanities	3
GER Fine Arts		3
GER Natural Sciences		3
GER Natural Sciences Lab		1
	Credits	**13**
Second Year		
Fall		
GER Alaska Native-Themed		3
GER Natural Sciences		3
GER Social Sciences		3
Program Elective (Non-Western History)		3
Upper Division Program Elective		3
	Credits	**15**
Spring		
GER Intercultural Fluency		3
GER Social Sciences		3
Elective		3
Program Elective (Non-Western History) [1]		3
Upper Division Program Elective		3
	Credits	**15**
Third Year		
Fall		
GER Integrative Capstone		3
Upper Division Elective		3

Upper Division Elective		3
Upper Division Program Elective		3
Upper Division Program Elective		3
	Credits	**15**
Spring		
HIST A377	Historiography: The Uses and Abuses of History	3
Elective		3
Upper Division Elective		3
Upper Division Elective		3
Upper Division Program Elective		3
	Credits	**15**
Fourth Year		
Fall		
HIST A477	Senior Seminar	3
Elective		3
Elective		3
Elective		3
Upper Division Elective		3
	Credits	**15**
Spring		
Elective		3
Elective		3
Elective		3
Elective		3
Elective		3
	Credits	**15**
	Total Credits	**118**

[1] *HIST A390 may be repeated for the Program Elective: Non-Western requirement with a change in topic.*

Minor in History

Students who wish to minor in history must complete the requirements listed below.

Code	Title	Credits
Complete one of the following sequences:		6
HIST A101 & HIST A102	Western Civilization Before 1650 and Europe in the Modern World	
HIST A131 & HIST A132	History of the United States I and History of the United States II	
Upper-division History electives		9
History electives, any level		3
Total		**18**

A total of 18 credits is required for the minor, 9 of which must be upper-division.

Bachelor of Arts in Interdisciplinary Studies

The Bachelor of Arts in Interdisciplinary Studies enables students to earn a degree achieving outcomes from more than one subject. A customized specialized program of study or approved multidisciplinary advising tracks are available. UAA's courses can be combined in a way to address personal goals such as specific career options.

Admission Requirements

- Complete the Admission Requirements for Baccalaureate Degrees (p. 46).

Special Considerations

- Students interested in this major should consult an academic or faculty advisor.
- The degree may not duplicate an existing UAA baccalaureate degree.

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (p. 442).
- Complete the General Education Requirements for Baccalaureate Degrees (p. 443).
- Complete the major requirements as outlined in an Interdisciplinary Studies Plan. Students will work with an academic or faculty advisor to put together the plan.

A minimum of 120 credits is required for the degree.

Bachelor of Science in Interdisciplinary Studies

The Bachelor of Science in Interdisciplinary Studies enables students to earn a degree achieving outcomes from more than one subject. A customized specialized program of study or approved multidisciplinary advising tracks are available. UAA's courses can be combined in a way to address personal goals such as specific career options.

Admission Requirements

- Complete the Admission Requirements for Baccalaureate Degrees (p. 46).

Special Considerations

- Students interested in this major should consult an academic or faculty advisor.
- The degree may not duplicate an existing UAA baccalaureate degree.

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (p. 442).

- Complete the General Education Requirements for Baccalaureate Degrees (p. 443).
- Complete the major requirements as outlined in an Interdisciplinary Studies Plan. Students will work with an academic or faculty advisor to put together the plan.

A minimum of 120 credits is required for the degree.

Bachelor of Arts in International Studies

The international studies program prepares students to be global citizens in an interdependent world. International and intercultural knowledge is fundamental to contemporary life and work. The objective of this program is to prepare students to be contributing members of the international community.

Admission Requirements

- Complete the Admission Requirements for Baccalaureate Degrees (p. 46).

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (p. 442).
- Complete the General Education Requirements for Baccalaureate Degrees (p. 443).
- Complete the following major requirements:

Code	Title	Credits
Foundational Courses		
ENGL A200	Global Literature and Culture	3
HIST A101	Western Civilization Before 1650	3
HIST A102	Europe in the Modern World	3
INTL/GEOG A101	Local Places/Global Regions: An Introduction to Geography	3
PS A102	Introduction to Political Science	3
SOC A101	Introduction to Sociology	3
Core Courses		
HIST A390	Themes in World History	3
PHIL A301	Ethics	3
PS A311	Comparative Politics	3
SOC A307	Demography	3
Mastery Courses		
Complete one of the following:		3
ENGL A440	Topics in Comparative Literature	
GEOG A390A	Selected Topics in Global Geography	
PHIL A490A	Selected Topics in Ethics, Community, and Society	
SOC A380	Sociology of Globalization	
Choose an emphasis language from among the foreign languages offered at UAA and complete at least two semesters at the 200 level or higher. Students in the Regional Studies track must choose a language appropriate to one of the approved regions of study, as specified below.		8
Complete either the Regional Studies or Global Social Sciences track listed below.		12-15
Total		**53-56**

Code	Title	Credits
Regional Studies Track		**12-15**
Europe (Languages: French, German, Russian, Spanish)		
Complete 12 upper-division credits in two subject areas:		12
FREN A310	Selected Topics: Literary Trends and Traditions [1]	
FREN A490	Selected Topics: Studies in French/ Francophone Literature and Culture [1]	
GER A310	Selected Topics: Literary Trends and Traditions [1]	
GER A490A	Topics in Literatures and Cultures of the German-Speaking Countries [1]	
HIST A314	Nineteenth Century Europe	
HIST A316	Twentieth Century Europe	
HIST A411	History of Modern Germany	
HIST A425	History of the Soviet Union	
HIST A427	Post-Soviet Culture and Society	
HIST A490	Selected Topics in History [1]	
PHIL A314	Abrahamic Religions	
PS A333	History of Political Philosophy II: Modern	
SPAN A320	Studies in Contemporary Hispanic Cultures [1]	
SPAN A490	Selected Topics: Hispanic Culture and Civilization [1]	
SPAN A490A	Selected Topics: Studies in Hispanic Literature and Culture [1]	
Northeast Asia (Languages: Chinese, Japanese)		
HIST A121	The Making of East Asian Civilization	3
or HIST A122	East Asia in the Modern World	
Complete 12 upper-division credits in two subject areas:		12
HIST A321	Modern China	
HIST A322	Modern Japan	
HIST/INTL/PS A325	Northeast Asia in 21st Century	
HIST A330	Russia in East Asia	
JPN A350	Business Japanese	
JPN A390	Selected Topics: Studies in Japanese Culture and Society [1]	

JPN A390A	Selected Topics: English-Language Studies in Japanese Culture and Society [1]	
JPN A490	Selected Topics: Studies in Japanese Literature and Culture [1]	
PHIL A313	Eastern Philosophy and Religion	
PS A324	Model United Nations [1]	
The Global South (Languages: French, Spanish)		
Complete 12 upper-division credits in two subject areas:		12
FREN A310	Selected Topics: Literary Trends and Traditions [1]	
FREN A490	Selected Topics: Studies in French/ Francophone Literature and Culture [1]	
HIST A336	Latin America to 1800	
HIST A338	Modern Latin America: Revolutions, Dictatorships, and Democracy	
HIST A408	Iberian Empires: Globalization in the Early Modern World	
PHIL A314	Abrahamic Religions	
PS A324	Model United Nations [1]	
SPAN A310	Selected Topics: Literary Trends and Traditions [1]	
SPAN A320	Studies in Contemporary Hispanic Cultures [1]	
SPAN A490	Selected Topics: Hispanic Culture and Civilization [1]	
SPAN A490A	Selected Topics: Studies in Hispanic Literature and Culture [1]	

Code	Title	Credits
Global Social Sciences Track		**12**
Complete 12 credits in two subject areas from the following:		
EDFN A304	Comparative Education	
GEOG A475	Geospatial and Cartographic Techniques for the Sciences	
JUST A365	World Justice Systems	
PS A301	States and Markets	
PS A321	International Relations	
PS A324	Model United Nations	
SOC A363	Social Stratification	
SOC A377	Sociology of Gender	

[1] *With approved topic.*

International/Intercultural Experience

International studies students are encouraged to engage in an international or intercultural experience related to their program of study and the student learning outcomes of the program. Students may earn credits applicable to the degree program through a study abroad program, short-term study abroad, or an internship or service-learning project that involves a significant international or intercultural component. Students seeking to fulfill a degree requirement with credits earned through study abroad, internship or service-learning should consult an academic advisor and submit an academic petition in advance.

A minimum of 120 credits is required for the degree, of which 39 credits must be upper-division.

Honors in International Studies

Students majoring in international studies are eligible to graduate with honors if they satisfy the following requirements:

- Meet the requirements for Graduation with Honors (p. 30);
- Meet the requirements for a Bachelor of Arts in International Studies;
- Maintain a minimum GPA of 3.80 in courses applicable to the degree requirements;
- Complete ENGL A440, GEOG A390A, PHIL A490A, or SOC A380 with a grade of A;
- Complete the 8-credit language requirement at the 300 level.

Program Student Learning Outcomes

Students graduating with a Bachelor of Arts in International Studies will be able to:

- Demonstrate cross-cultural understanding through language study.
- Demonstrate critical thinking about values, attitudes, and practices in an international context.
- Demonstrate an ability to analyze international issues and challenges and apply integrative multi-disciplinary tools to describe and explain them.
- Demonstrate effective written communication.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.

- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
GEOG A101/INTL A101		3
WRTG A111	Writing Across Contexts	3
GER Natural Sciences		3
GER Quantitative Skills		3
Program Elective (Emphasis Language A101)		4
	Credits	**16**
Spring		
SOC A101	Introduction to Sociology	3
GER Natural Sciences		3
GER Natural Sciences Lab		1
GER Oral Communication Skills		3
GER Written Communication Skills (200 level course)		3
Program Elective (Emphasis Language A102)		4
	Credits	**17**
Second Year		
Fall		
ENGL A200	Global Literature and Culture	3
HIST A101	Western Civilization Before 1650	3
GER Alaska Native-Themed		3
GER Fine Arts		3
Program Elective (Emphasis Language A201)		4
	Credits	**16**
Spring		
HIST A102	Europe in the Modern World	3
PS A102	Introduction to Political Science	3
Elective		3
Elective		3
Program Elective (Emphasis Language A202)		4
	Credits	**16**
Third Year		
Fall		
HIST A390	Themes in World History	3
PHIL A301	Ethics	3
PS A311	Comparative Politics	3
Upper Division Program Elective (Europe)		3
Upper Division Program Elective (Europe)		3
	Credits	**15**
Spring		
SOC A307	Demography	3
Program Elective (Mastery Course)		3
Upper Division Elective		3
Upper Division Program Elective (Europe)		3
Upper Division Program Elective (Europe)		3
	Credits	**15**
Fourth Year		
Fall		
Elective		3
Elective		3
Elective		1
Upper Division Elective		3
Upper Division Elective		3
	Credits	**13**
Spring		
Elective		3
Elective		3
Elective		3
Upper Division Elective		3
	Credits	**12**
	Total Credits	**120**

Minor in International Studies

The international studies program prepares students to be global citizens in an interdependent world. International and intercultural knowledge is fundamental to contemporary life and work. The objective of this program is to prepare students to be contributing members of the international community.

Students wishing to minor in international studies must complete the following requirements.

Code	Title	Credits
INTL/GEOG A101	Local Places/Global Regions: An Introduction to Geography	3
Complete one the following (outside student's major):		3
GEOG A390A	Selected Topics in Global Geography	
HIST A390	Themes in World History	
SOC A380	Sociology of Globalization	
Complete 8 credits in one of the following languages: Chinese, French, German, Japanese, Russian or Spanish		8

Complete two approved upper-division courses with regionally or thematically related international content [1]	6
Total	**20**

[1] *Departmental pre-approval required.*

A total of 20 credits is required for the minor.

Bachelor of Arts in Journalism and Public Communications

The Bachelor of Arts (BA) in Journalism and Public Communications (JPC) prepares students to engage in the role that free expression and communication play in a global society. Students create professional-quality projects in print, audio, video, and multimedia. Graduates are prepared for careers and graduate school because of hands-on experience and an emphasis on ethics, effective communication in a variety of contexts and formats, critical thinking, and community-engaged research and creative activity.

Admission Requirements

- Complete the Admission Requirements for Baccalaureate Degrees (p. 46).

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (p. 442).
- Complete the General Education Requirements for Baccalaureate Degrees (p. 443).
- Submit a completed ePortfolio.
- Complete at least 72 credits from outside the major.
- Complete the major requirements below, which includes 36 credits of JPC coursework.

Code	Title	Credits
Core Courses		
JPC A104	Media Literacy	3
JPC A201	Reporting and Writing News	3
JPC A202	First Amendment and Media Ethics	3
JPC A203	Multimedia Storytelling I	3
Integrative Capstone		
Complete one of the following courses:		3
JPC A403	Communications and Media Research	
JPC A492	JPC Capstone Seminar	
Electives		
Complete one of the following courses:		3
JPC A210	Infographics, Data Visualization and Strategy	
JPC A212	Editing for Journalism and Public Communications	
JPC A213	Digital Imaging	
Complete six of the following courses:		18
JPC A342	Photojournalism	
JPC A343	Radio News Reporting	
JPC A344	Television News Reporting	
JPC A345	Web Design	
JPC A362	Principles of Strategic Communications	
JPC A366	Planning and Writing for Strategic Communications	
JPC A368	Commercial Photography	
JPC A382	Podcasting	
JPC A383	TV Studio Production	
JPC A384	Digital Video Production	
JPC A404	Global Media	
JPC/LEGL A413	Communications Law	
JPC A442	Multimedia Storytelling II	
JPC A443	Public Service Reporting	
JPC A445	Magazines	
JPC A463	Crisis Communications	
JPC A464	Community and Fundraising Communications	
JPC A465	Strategic Communications Campaigns	
JPC A484	Digital Film Production	
JPC A490	Selected Topics in Journalism and Public Communications	
JPC A495	JPC Practica and Internships [1]	
Interdisciplinary electives		
Complete one of the following courses:		3
AKNS A201	Alaska Native Perspectives	
BA A286	Entrepreneurship and Innovation	
BA A381	Consumer Behavior and Relationship Management	
BA A480	Marketing Media Analytics	
CEL A292	Introduction to Civic Engagement	
ECON A101	Principles of Microeconomics	
ECON A102	Principles of Macroeconomics	
HIST A131	History of the United States I	
HIST A390	Themes in World History	
JUST A330	Ethics in Criminal Justice Practice and Policy	
PHIL A301	Ethics	
PHIL A305	Professional Ethics	
PS A301	States and Markets	
PS A324	Model United Nations	
PSY A375	Social Psychology	
WSGS A200	Introduction to Women's and Gender Studies	

[1] *Only JPC juniors and seniors with a 3.00 GPA may enroll in JPC A495. JPC practica require an approved academic plan and the approval of the appropriate JPC media advisor or UAA-based workplace supervisor. JPC internships require the approval of the director of JPC internships.*

A minimum of 120 credits is required for the degree, of which 39 credits must be upper-division.

Honors in Journalism and Public Communications

The Bachelor of Arts in Journalism and Public Communications recognizes distinguished achievement by conferring programmatic honors in journalism and public communications. In order to receive honors in journalism and public communications, a student must meet the following requirements:

- Meet the requirement for Graduation with Honors;
- Meet the requirements for a BA in Journalism and Public Communications;
- Maintain an overall and JPC-specific minimum GPA of 3.50;
- Complete JPC A403 or JPC A492 with a minimum grade of A.

Program Student Learning Outcomes

Students graduating with a Bachelor of Arts in Journalism and Public Communications will be able to:

- Demonstrate an understanding of the history and the role of journalism and public communications in society;
- Demonstrate an understanding of diversity in a global society in relationship to communications;
- Demonstrate an understanding of the ethical concepts, legal rights and responsibilities, considerations and practices that guide public communications and research in the field;
- Gather, critically evaluate, and synthesize information from various sources;
- Demonstrate the ability to think independently and evaluate their own work and the work of others for accuracy, fairness, clarity, style and correctness;
- Communicate effectively in a variety of contexts and formats;
- Apply basic numerical and statistical concepts and methods appropriate for the communications professions.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
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- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
JPC A104	Media Literacy	3
WRTG A111	Writing Across Contexts	3
GER Fine Arts		3
GER Oral Communication Skills		3
GER Quantitative Skills		3
	Credits	**15**
Spring		
WRTG A212	Writing and the Professions	3
GER Humanities		3
GER Natural Sciences		3
GER Natural Sciences Lab		1
GER Social Sciences		3
Elective		2
	Credits	**15**
Second Year		
Fall		
JPC A201	Reporting and Writing News	3
JPC A202	First Amendment and Media Ethics	3
JPC A210 or JPC A212 or JPC A213	Infographics, Data Visualization and Strategy or Editing for Journalism and Public Communications or Digital Imaging	3

GER Humanities		3
GER Natural Sciences		3
	Credits	**15**
Spring		
JPC A203	Multimedia Storytelling I	3
GER Alaska Native-Themed		3
Program Elective (Interdisciplinary)		3
Upper Division Elective		3
Upper Division Elective		3
	Credits	**15**
Third Year		
Fall		
GER Intercultural Fluency		3
Upper Division Elective		3
Upper Division Elective		3
Upper Division Program Elective		3
Upper Division Program Elective		3
	Credits	**15**
Spring		
Upper Division Elective		3
Upper Division Elective		3
Upper Division Program Elective		3
Upper Division Program Elective		3
Upper Division Program Elective		3
	Credits	**15**
Fourth Year		
Fall		
Elective		3
Elective		3
Elective		3
Elective		3
Upper Division Program Elective		3
	Credits	**15**
Spring		
JPC A403 or JPC A492	Communications and Media Research or JPC Capstone Seminar	3
Elective		3
Elective		3
Elective		3
Elective		3
	Credits	**15**
	Total Credits	**120**

Minor in Journalism and Public Communications

The Minor in Journalism and Public Communications prepares students to be effective professional communicators, and it prepares students to use and apply ethical professional communications in a variety of contexts. Students majoring in another subject can choose this minor and can focus on journalism and digital media, or on strategic communications, through the selection of their electives.

Code	Title	Credits
JPC A104	Media Literacy	3
JPC A202	First Amendment and Media Ethics	3
JPC A203	Multimedia Storytelling I	3
JPC electives		9
Total		**18**

A minimum of 18 credits is required for the minor, 6 of which must be upper division.

Bachelor of Arts in Languages

Admission Requirements

- Complete the Admission Requirements for Baccalaureate Degrees (p. 46).

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (p. 442).
- Complete the General Education Requirements for Baccalaureate Degrees (p. 443).
- All language majors are required to take the Languages Exit Exam, consisting of both oral and written components, during their final semester prior to graduation. There is no minimum score required for graduation as the Languages Exit Exam serves purely programmatic needs. Please contact your faculty advisor to schedule the exam.
- Students may not earn a major and a minor in the same language.
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
Complete one of the following courses:		3
LING A101	How Language Works	
ENGL A311	Writing in Public Life	
ENGL A435	Critical Theory	
Choose one of the following languages:		34
French		
Complete the following four courses:		
FREN A201	Intermediate French I	
FREN A202	Intermediate French II	
FREN A301	Advanced French I	
FREN A302	Advanced French II	
Complete 18 credits from the following: [1]		
FREN A306	Advanced French Conversation and Composition	
FREN A310	Selected Topics: Literary Trends and Traditions	

FREN A490	Selected Topics: Studies in French/ Francophone Literature and Culture
HIST A310	Renaissance/Reformation Europe
HIST A312	Princes, Pirates, and Puritans: Europe 1600-1789
HIST A314	Nineteenth Century Europe
HIST A316	Twentieth Century Europe
German	
Complete the following four courses:	
GER A201	Intermediate German I
GER A202	Intermediate German II
GER A301	Advanced German I
GER A302	Advanced German II
Complete 18 credits from the following: [1]	
GER A310	Selected Topics: Literary Trends and Traditions
GER A490A	Topics in Literatures and Cultures of the German-Speaking Countries
HIST A310	Renaissance/Reformation Europe
HIST A312	Princes, Pirates, and Puritans: Europe 1600-1789
HIST A314	Nineteenth Century Europe
HIST A316	Twentieth Century Europe
HIST A411	History of Modern Germany
Japanese	
Complete the following four courses:	
JPN A201	Intermediate Japanese I
JPN A202	Intermediate Japanese II
JPN A301	Advanced Japanese I
JPN A302	Advanced Japanese II
Complete 18 credits from the following: [1]	
JPN A350	Business Japanese
JPN A390	Selected Topics: Studies in Japanese Culture and Society
JPN A390A	Selected Topics: English-Language Studies in Japanese Culture and Society
JPN A490	Selected Topics: Studies in Japanese Literature and Culture
HIST A322	Modern Japan
HIST A325	Northeast Asia in 21st Century
HIST A420	The Rise, Fall, and Reinvention of the Samurai
INTL A325	Northeast Asia in 21st Century
Spanish	
Complete the following four courses:	
SPAN A201	Intermediate Spanish I
SPAN A202	Intermediate Spanish II
SPAN A301	Advanced Spanish I
SPAN A302	Advanced Spanish II
Complete 18 credits from the following: [1]	
SPAN A310	Selected Topics: Literary Trends and Traditions
SPAN A320	Studies in Contemporary Hispanic Cultures
SPAN A490	Selected Topics: Hispanic Culture and Civilization
SPAN A490A	Selected Topics: Studies in Hispanic Literature and Culture
HIST A336	Latin America to 1800
HIST A338	Modern Latin America: Revolutions, Dictatorships, and Democracy
HIST A406	Conflict and Coexistence in Medieval Iberia
HIST A408	Iberian Empires: Globalization in the Early Modern World
Total	**37**

[1] *Complete 18 credits of faculty advisor approved upper-division electives in or related to the primary language or culture, at least 9 of which must be taught in the primary language and at least 6 of which must be completed in residence.*

A minimum of 120 credits is required for the degree, 39 of which must be upper-division.

Honors in Languages

The Bachelor of Arts (BA) in Languages recognizes distinguished achievement by conferring programmatic honors in languages. In order to receive honors in languages, a student must meet the following requirements:

- Be a declared languages major;
- Satisfy all requirements for a BA in Languages;
- Meet the requirements for Graduation with Honors (p. 30) as outlined in the catalog;
- Maintain a minimum overall GPA of 3.80;
- Maintain a minimum GPA of 3.90 in courses taken in the primary language option beyond A302.

Program Student Learning Outcomes

Students graduating with a Bachelor of Arts in Languages will be able to:

- Communicate effectively in both spoken and written forms, as per the American Council on the Teaching of Foreign Languages Guidelines, in the emphasis language.
- Demonstrate close reading and critical analysis of authentic texts in the emphasis languages.

- Articulate knowledge of cross-cultural similarities and differences, appropriately communicating this knowledge within a given context in the emphasis language.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

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- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year

Fall		**Credits**
WRTG A111	Writing Across Contexts	3
GER Oral Communication Skills		3
GER Quantitative Skills		3
GER Social Sciences		3
Program: Primary Language A101		4
	Credits	**16**
Spring		
WRTG A211	Writing and the Humanities	3
GER Fine Arts		3
GER Natural Sciences Lecture		3
GER Social Sciences		3
Program: Primary Language A102		4
	Credits	**16**

Second Year

Fall		
ENGL A311 or ENGL A435 or LING A101	Writing in Public Life or Critical Theory or How Language Works	3
GER Alaska Native-Themed		3
GER Natural Sciences Lecture		3
GER Natural Sciences Lab		1
Program: Primary Language A201		4
	Credits	**14**
Spring		
Elective		3
Elective		3
Elective		3
Program: Primary Language A202		4
Upper Division Elective		3
	Credits	**16**

Third Year

Fall		
GER Integrative Capstone		3
Elective		3
Program: Primary Language A301		4
Upper Division Elective		3
	Credits	**13**
Spring		
Elective		3
Elective		3
Program: Primary Language A302		4
Upper Division Elective		3
Upper Division Elective		3
	Credits	**16**

Fourth Year

Fall		
Elective		3
Elective		3
Upper Division Program Elective (Program Primary Language)		3
Upper Division Program Elective (Program Primary Language)		3
Upper Division Program Elective (Program Primary Language)		3
	Credits	**15**
Spring		
Elective		3

Elective	3
Upper Division Program Elective (Program Primary Language)	3
Upper Division Program Elective (Program Primary Language)	3
Upper Division Program Elective (Program Primary Language)	3
Credits	**15**
Total Credits	**121**

Minor in Languages

Students who wish to minor in languages must complete the following requirements:

1. A total of 19 credits taught in the target language at or above the 200 level with at least 11 credits being upper division.
2. Credits must be in one discipline chosen from the following languages:
   a. French
   b. German
   c. Japanese
   d. Spanish

Occupational Endorsement Certificate in Marine Mammal Biology

This program is delivered only through Kenai Peninsula College.

The Occupational Endorsement Certificate in Marine Mammal Biology prepares students to quickly enter the local workforce as technicians, biologists, and marine mammal observers (for fisheries and oil/gas exploration). Students will receive vital education and experiential training required in these workforce sectors, and via their internships will be connected with biological organizations in need of employees, meeting the needs of local employers in the short-term and beyond.

Admission Requirements

- Complete the Admission Requirements for Occupational Endorsement Certificates (p. 46).
- Complete the Semester by the Bay OEC student application form.
- Qualitative experience(s) in ecology - prerequisite course in Principles of Ecology, Environmental Science, or Program Chair waiver based on relevant experience as demonstrated in student entrance essay and/or artifact submission.

Special Considerations

- Lifting up to 22 kilograms for some projects
- Working in inclement weather and/or for extended periods of time for some courses
- Working in remote field settings for some projects
- Traveling to remote field sites for some courses

Graduation Requirements

- Complete the General University Requirements for Occupational Endorsement Certificates (p. 440).
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
BIOL A325	Advanced Marine Skeletal Articulation (Advanced Marine Skeletal Articulation)	2
BIOL A430	Marine Mammal Biology	3
BIOL A432	Experiential Learning: Marine Mammal Biology (EL: Marine Mammal Biology)	2
BIOL A458	Behavioral Ecology of Marine Mammals (Behavioral Ecology of Marine Mammals)	3
BIOL A459	Experiential Learning: Behavioral Ecology of Marine Mammals (EL: Behavioral Ecology of Marine Mammals)	2
BIOL A492A	Undergraduate Seminar: Semester by the Bay (Undergraduate Seminar: Semester by the Bay)	1
BIOL A495A	Internship in the Biological Sciences	3
Total		**16**

A minimum of 16 credits is required for the certificate.

Program Student Learning Outcomes

Students graduating with an Occupational Endorsement Certificate in Marine Mammal Biology will be able to:

- Describe the biology, ecology and behavior of marine mammals
- Demonstrate contributions to long-term marine mammal research projects
- Describe the current issues associated with marine mammals in Alaska
- Demonstrate common field and lab skills used by marine mammal biologists

Occupational Endorsement Certificate in Marine Natural Resources Technician

This program is delivered only through the Prince William Sound College.

The Occupational Endorsement Certificate (OEC) in Marine Natural Resources Technician prepares students for careers in marine natural resources and marine science. The mission of the OEC in Marine Natural Resources Technician is to provide students with the skills

and knowledge necessary for successful employment at the technician level in marine natural resources and marine science through hands-on training and coursework.

Admission Requirements

- Complete the Admission Requirements for Occupational Endorsement Certificates (p. 46).

Special Considerations

- OEC will be offered in a semester-long format in Valdez. For more detailed information, refer to program website.
- Travel to and work in field settings for some projects.
- Work in inclement weather.
- Work for extended periods of time for some courses.
- Lift up to 22 kilograms for some projects.

Graduation Requirements

- Complete the General University Requirements for Occupational Endorsement Certificates (p. 440).
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
BIOL A127	Biota of Alaska: Introduction to Mariculture	3
BIOL A150	Introduction to Marine Biology	3
BIOL A178 & BIOL A179	Introduction to Oceanography and Introduction to Oceanography Laboratory	4
MATH A104	Technical Mathematics	3
or STAT A200	Elementary Statistics	
Complete 3 credits from the following: [1]		3
BIOL A198	Individual Research	
ITEC A295	Industrial Technology Internship	
KIN A112	First Aid and CPR for Professionals	
MT A110	Marine Boathandling and Safety	
MT A113	Outboard Engines	
OSH A100	Basic Workplace Safety	
Total		**16**

[1] *Other electives may apply with department approval.*

A minimum of 16 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with an Occupational Endorsement Certificate in Marine Natural Resources Technician will be able to:

- Complete basic techniques in marine science;
- Demonstrate an understanding of concepts and principles in marine natural resource activities;
- Demonstrate a basic knowledge of marine organisms;
- Demonstrate proficiency in basic math skills.

Bachelor of Arts in Mathematics

The Bachelor of Arts (BA) in Mathematics prepares students for careers in academia, K-12 education, and a myriad of jobs requiring a balance of analytical and interpersonal abilities. In addition to a strong mathematics core curriculum, this degree helps to strengthen communication and critical thinking skills.

Admission Requirements

- Complete the Admission Requirements for Baccalaureate Degrees (p. 46).

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (p. 442).
- Complete the General Education Requirements for Baccalaureate Degrees (p. 443).
- All mathematics majors must take a standardized test of knowledge of mathematics approved by the mathematics faculty for the purpose of evaluating program effectiveness. There is no minimum score required for graduation. This test will normally be taken during the senior year.
- All mathematics majors must complete a portfolio demonstrating their mathematics knowledge. There is no grade for this requirement. The portfolio will normally be submitted in the semester of graduation.
- Complete the following major requirements:

Code	Title	Credits
Core Courses		
MATH A251	Calculus I	4-6
or MATH A251F	F.A.T. Calculus I	
MATH A252	Calculus II	4-6
or MATH A252F	F.A.T. Calculus II	
MATH A253	Calculus III	4
MATH A264	Introduction to the Mathematics Major	1
MATH A265	Fundamentals of Mathematics	3
MATH A306	Discrete Methods	3
MATH A314	Linear Algebra	3
MATH A401	Introduction to Real Analysis	3
MATH A405	Introduction to Abstract Algebra	3
MATH A420	Historical Mathematics	3
Analysis and Topology		
Select one of the following:		3
MATH A410	Introduction to Complex Analysis	

MATH A430	Concepts of Topology	
MATH A431	Introduction to Differential Geometry	
Applied Math		
Select one of the following:		3
MATH A302	Ordinary Differential Equations	
MATH A426	Numerical Analysis	
MATH A432	Partial Differential Equations	
PHYS/BIOL/CHEM A456	Nonlinear Dynamics and Chaos	
Statistics		
Select one of the following:		3-4
STAT A307	Probability and Statistics	
STAT A308	Intermediate Statistics for the Sciences	
STAT A402	Scientific Sampling	
STAT A403	Regression Analysis	
STAT A407	Time Series Analysis	
STAT A410	Statistical Methods	
Other Mathematics Courses		
Select one of the following:		3
MATH A305	Introduction to Geometries	
MATH A309	Introduction to Number Theory	
Select any 6 additional credits from any of the four categories above.		6
Additional Courses		
PHIL A101	Introduction to Logic	3
Select 6 credits from the following (a WRTG GER plus one additional selection):		6
WRTG A212	Writing and the Professions	
WRTG A213	Writing and the Sciences	
WRTG A214	Arguing Across Contexts	
ENGL A311	Writing in Public Life	
ENGL A312	Technical Writing and Design	
ENGL A313	Professional Writing	
ENGL A414	Research Writing	
Select 6 credits from the following:		6
COMM A111	Fundamentals of Oral Communication	
COMM A235	Small Group Communication	
COMM A237	Interpersonal Communication	
COMM A241	Public Speaking	
COMM A305	Intercultural Communication	
COMM A330	Collaboration and Group Decision Making	
COMM A335	Communication and Conflict	
COMM A340	Nonverbal Communication	
COMM A341	Advanced Public Speaking	
COMM A350	Communication in the Workplace	
COMM A450	Communication and Leadership	
THR A121	Fundamentals of Acting	
Mathematics Capstone Experience		
Select 1-3 credits from the following:		1-3
MATH A495A	Mathematics Practicum [1]	
MATH A495B	Mathematics or Statistics Internship [1]	
MATH A496	Advanced Readings in Mathematics [1]	
MATH A498	Individual Research [1]	
Total		**65-72**

[1] *A maximum of 6 credits of MATH A495A, MATH A495B, MATH A496 and MATH A498 may be applied to the degree requirements.*

A minimum of 120 credits is required for the degree, of which 39 credits must be upper-division.

Honors in Mathematics

The Bachelor of Arts in Mathematics recognizes distinguished achievement by conferring programmatic honors in mathematics. In order to receive honors in mathematics, a student must meet the following requirements:

- Meet the requirements for Graduation with Honors (p. 30) as outlined in the catalog;
- Meet the requirements for a BA/BS in Mathematics;
- Earn a minimum cumulative GPA of 3.50 in the major requirements;
- Complete a minimum of 12 upper-division credits required for the major in residence.

Program Student Learning Outcomes

Students graduating with a Bachelor of Arts in Mathematics will be able to:

- Demonstrate knowledge of the techniques of modern mathematical subjects including all of algebra, analysis, discrete mathematics, and probability and statistics.
- Demonstrate an ability to solve problems using skills such as deductive logic, data analysis, computation, modeling, connections, and other mathematical techniques.
- Demonstrate an ability to create mathematical proofs.
- Demonstrate an ability to read, write, and speak about mathematics.
- Demonstrate cognizance of their mathematical knowledge, of mathematics around them, and of the benefit of continued study of mathematics.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year

Fall		**Credits**
MATH A251 or MATH A251F	Calculus I [1] or F.A.T. Calculus I	4-6
WRTG A111	Writing Across Contexts	3
GER Fine Arts		3
GER Oral Communication Skills		3
Elective		3
	Credits	**16-18**
Spring		
MATH A252 or MATH A252F	Calculus II or F.A.T. Calculus II	4-6
MATH A264	Introduction to the Mathematics Major	1
WRTG A213	Writing and the Sciences	3
GER Natural Sciences		3
GER Natural Sciences Lab		1
Program Elective (COMM or THR)		3
	Credits	**15-17**

Second Year

Fall		
MATH A253	Calculus III	4
PHIL A101	Introduction to Logic	3
GER Alaska Native-Themed		3
GER Natural Sciences		3
Program Elective (ENGL/WRTG)		3
	Credits	**16**
Spring		
MATH A265	Fundamentals of Mathematics	3
GER Humanities		3
GER Intercultural Fluency		3
Program Elective (COMM or THR)		3
Upper Division Program Elective (Statistics)		3
	Credits	**15**

Third Year

Fall		
MATH A306	Discrete Methods	3
MATH A314	Linear Algebra	3
MATH A401	Introduction to Real Analysis	3
GER Social Sciences		3
Elective		3
	Credits	**15**
Spring		
GER Social Sciences		3
Elective		3
Elective		3
Upper Division Program Elective (Analysis & Topology)		3
Upper Division Program Elective (Applied Math)		3
	Credits	**15**

Fourth Year

Fall		
MATH A420	Historical Mathematics	3
Elective		3
Upper Division Elective		3
Upper Division Program Elective (Analysis & Topology, Applied Math, Statistics, or Other Mathematics Courses)		3
Upper Division Program Elective (Capstone Experience)		3
Mathematics Portfolio and Exam [2]		
	Credits	**15**
Spring		
MATH A405	Introduction to Abstract Algebra	3
Elective		1
Program Elective (MATH A305 or MATH A309)		3

Upper Division Elective	3
Upper Division Program Elective (Analysis & Topology, Applied Math, Statistics, or Other Mathematics Courses)	3
Credits	**13**
Total Credits	**120-124**

[1] *MATH A251 and MATH A251F have prerequisites.*

[2] *Majors are required to complete a Mathematics Portfolio and a Mathematics Knowledge Exam in the fourth year.*

Bachelor of Science in Mathematics

The Bachelor of Science (BS) in Mathematics prepares students for careers in academia, technology, business and the sciences. In addition to a strong mathematics core curriculum, this degree offers the opportunity to explore how mathematics is applied through concentrations in statistics, finance, physics, computer science, pre-data science, or another approved discipline as a bridge to a future career.

Admission Requirements

- Complete the Admission Requirements for Baccalaureate Degrees (p. 46).

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (p. 442).
- Complete the General Education Requirements for Baccalaureate Degrees (p. 443).
- Take a standardized test of knowledge of mathematics approved by the mathematics faculty for the purpose of evaluating program effectiveness. There is no minimum score required for graduation. This test will normally be taken during the senior year.
- Complete a portfolio demonstrating their mathematics knowledge. There is no grade for this requirement. The portfolio will normally be submitted in the semester of graduation.
- Complete the following major requirements:

Code	Title	Credits
Core Courses		
MATH A251	Calculus I	4-6
or MATH A251F	F.A.T. Calculus I	
MATH A252	Calculus II	4-6
or MATH A252F	F.A.T. Calculus II	
MATH A253	Calculus III	4
MATH A264	Introduction to the Mathematics Major	1
MATH A265	Fundamentals of Mathematics	3
MATH A306	Discrete Methods	3
MATH A314	Linear Algebra	3
MATH A401	Introduction to Real Analysis	3
MATH A405	Introduction to Abstract Algebra	3
Analysis and Topology		
Select one of the following:		3
MATH A410	Introduction to Complex Analysis	
MATH A430	Concepts of Topology	
MATH A431	Introduction to Differential Geometry	
Applied Math		
Select one of the following:		3
MATH A302	Ordinary Differential Equations	
MATH A432	Partial Differential Equations	
MATH A426	Numerical Analysis	
PHYS/BIOL/CHEM A456	Nonlinear Dynamics and Chaos	
Statistics		
Select one of the following: [2]		3-4
STAT A307	Probability and Statistics [2]	
STAT A308	Intermediate Statistics for the Sciences [2]	
STAT A402	Scientific Sampling [2]	
STAT A403	Regression Analysis [2]	
STAT A407	Time Series Analysis	
STAT A410	Statistical Methods	
Other Mathematics Course		
Select one of the following: [2]		3
MATH A305	Introduction to Geometries	
MATH A309	Introduction to Number Theory	
MATH A420	Historical Mathematics	
Select 6 additional credits from the four categories above. [2]		**6**
Select from one of the following options:		**12-20**
Option 1: Statistics (12 credits)		
Complete 12 additional credits not already selected from the statistics list above		
Option 2: Physics (14 credits)		
PHYS A211	General Physics I	
PHYS A211L	General Physics I Laboratory	
PHYS A212	General Physics II	
PHYS A212L	General Physics II Laboratory	
Complete 6 additional credits of PHYS courses at the 300-level or higher		
Option 3: Computer Science (16 credits)		
CSCE A101	Introduction to Computer Science	
CSCE A201	Computer Programming I	
Complete 9 additional credits of CSCE courses at the 200-level or higher		
Option 4: Finance (18 credits)		
BA A325	Corporate Finance	
BADA A110	Computer Concepts in Business	
ECON A227	Introductory Statistics for Economics and Business	

Complete 9 credits of upper-division finance courses from the list below:		
BA A380	Investment Management	
BA A385	Intermediate Financial Management	
BA A427	International Finance	
BA A451	Advanced Investment Strategies	
BA A452	Financial Derivatives	
Option 5: Pre-Data Science (20 credits) [2]		
CSCE A101	Introduction to Computer Science	
CSCE A201	Computer Programming I	
CSCE A211	Computer Programming II	
CSCE A311	Data Structures and Algorithms	
CSCE A360	Database Systems	
Complete one of the following courses not already selected from a list above:		
CSCE A415	Machine Learning	
CSCE A462	Data Mining	
STAT A407	Time Series Analysis	
Option 6: Concentration in another discipline involving mathematics (15 credits) [3]		
Complete 15 credits from a departmentally-approved list, of which 6 credits must be upper-division.		
Mathematics Capstone Experience		**1**
Select from one of the following options.		
MATH A495A	Mathematics Practicum [1]	
MATH A495B	Mathematics or Statistics Internship [1]	
MATH A496	Advanced Readings in Mathematics [1]	
MATH A498	Individual Research [1]	
Total		**59-72**

1 *A maximum of 6 credits of MATH A495A, MATH A495B, MATH A496 and MATH A498 may be applied to the degree requirements.*

2 *If completing Option 5 (Pre-Data Science), STAT A307 is required to complete the Statistics degree requirement, STAT A308 is required to complete the "Other Mathematics Course" requirement (this course is not listed above because it is not a choice for students pursuing other Options), and STAT A402 and STAT A403 are required to complete the 6 additional credits requirement.*

3 *Completion of Option 6 requires consultation with an advisor and a proposal for the choice of discipline and courses that is subject to approval by the Department of Mathematics & Statistics. Students considering Option 6 should be aware that additional prerequisites for courses that are accepted for Option 6 may result in a total credit count that exceeds 15 credits.*

A minimum of 120 credits is required for the degree, of which 39 credits must be upper-division.

Honors in Mathematics

The Bachelor of Science (BS) in Mathematics recognizes distinguished achievement by conferring programmatic honors in mathematics. In order to receive honors in mathematics, a student must meet the following requirements:

- Meet the requirements for Graduation with Honors (p. 30) as outlined in the catalog;
- Meet the requirements for a BS in Mathematics;
- Earn a minimum cumulative GPA of 3.50 in the major requirements;
- Complete a minimum of 12 upper-division credits required for the major in residence.

Program Student Learning Outcomes

Students graduating with a Bachelor of Science (BS) in Mathematics will be able to:

- Demonstrate knowledge of the techniques of modern mathematical subjects including all of algebra, analysis, discrete mathematics, and probability and statistics.
- Demonstrate an ability to solve problems using skills such as deductive logic, data analysis, computation, modeling, connections, and other mathematical techniques.
- Demonstrate an ability to create mathematical proofs.
- Demonstrate an ability to read, write, and speak about mathematics.
- Demonstrate cognizance of their mathematical knowledge, of mathematics around them, and of the benefit of continued study of mathematics.
- Demonstrate an understanding of the connections between mathematics and another discipline relying significantly on mathematics and recognize mathematical ideas embedded in other contexts.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.

- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year

Fall		**Credits**
MATH A251	Calculus I	4
WRTG A111	Writing Across Contexts	3
GER Natural Sciences Lecture (recommend BIOL A102)		3
GER Oral Communication Skills		3
Elective		1
	Credits	**14**
Spring		
MATH A252	Calculus II	4
MATH A264	Introduction to the Mathematics Major	1
GER Fine Arts		3
GER Natural Sciences Lab		1
GER Natural Sciences Lecture		3
GER Written Communication Skills (recommend WRTG A213)		3
	Credits	**15**

Second Year

Fall		
MATH A253	Calculus III	4
STAT A307 or STAT A308 or STAT A402 or STAT A403 or STAT A407 or STAT A410	Probability and Statistics or Intermediate Statistics for the Sciences or Scientific Sampling or Regression Analysis or Time Series Analysis or Statistical Methods	4
GER Alaska Native-Themed		3
GER Humanities		3
GER Social Sciences		3
	Credits	**17**
Spring		
MATH A265	Fundamentals of Mathematics	3
MATH A314	Linear Algebra	3
GER Humanities		3
GER Intercultural Fluency		3
Elective		3
	Credits	**15**

Third Year

Fall		
MATH A306	Discrete Methods	3
MATH A401	Introduction to Real Analysis	3
Upper Division Program Elective (Analysis & Topology)		3
Upper Division Program Elective (Statistics)		3
Upper Division Program Elective [1]		3
	Credits	**15**
Spring		
MATH A405	Introduction to Abstract Algebra	3
GER Social Sciences		3
Upper Division Program Elective (Applied Math)		3
Upper Division Program Elective (Statistics)		3
Upper Division Program Elective [1]		3
	Credits	**15**

Fourth Year

Fall		
Mathematics Capstone Experience (MATH A495A, MATH A495B, MATH A496, or MATH A498)		1
GER Integrative Capstone		3
Upper Division Program Elective (Statistics)		3
Elective		2
Elective		3
Elective		3
	Credits	**15**
Spring		
Upper Division Program Elective (Statistics)		3
Upper Division Program Elective (Other Mathematics Course)		3
Elective		3
Elective		3
Elective		3
	Credits	**15**
	Total Credits	**121**

[1] *Choose 3 additional credits (6 credits in total) from the Analysis & Topology, Applied Math, Statistics, or Other Mathematics Course categories.*

Minor in Mathematics

Students majoring in another subject who wish to minor in mathematics must complete the following requirements.

Code	Title	Credits
MATH A251	Calculus I	4-6
or MATH A251F	F.A.T. Calculus I	
MATH A252	Calculus II	4-6
or MATH A252F	F.A.T. Calculus II	
Complete at least 10 credits from the following, of which 6 must be at the upper-division level:		10
MATH A253	Calculus III	
MATH A261	Introduction to Discrete Mathematics	
MATH A264	Introduction to the Mathematics Major	
MATH A265	Fundamentals of Mathematics	
MATH A302	Ordinary Differential Equations	
MATH A305	Introduction to Geometries	
MATH A306	Discrete Methods	
MATH A309	Introduction to Number Theory	
MATH A314	Linear Algebra	
MATH A401	Introduction to Real Analysis	
MATH A405	Introduction to Abstract Algebra	
MATH A410	Introduction to Complex Analysis	
MATH A420	Historical Mathematics	
MATH A424	Advanced Engineering Mathematics: Linear Algebra and Numerical Analysis	
MATH A425	Advanced Engineering Mathematics: Partial Differential Equations and Complex Variables	
MATH A426	Numerical Analysis	
MATH A430	Concepts of Topology	
MATH A431	Introduction to Differential Geometry	
MATH A432	Partial Differential Equations	
STAT A307	Probability and Statistics	
Total		**18-22**

A minimum of 18 credits is required for the minor, of which 6 must be approved upper-division mathematics credits.

Bachelor of Arts in Music

The Bachelor of Arts (BA) in Music degree offers a diverse curriculum for those desiring a broad liberal arts education with a concentration in music. Students pursuing this degree will sample courses in each of the major musical areas (history, theory and performance) in addition to strengthening their artistry on their primary instrument or voice. The degree prepares students for graduate school, careers in education and a wide variety of other musical activities and professions.

The Bachelor of Arts in Music is accredited by the National Association of Schools of Music (NASM).

Admission Requirements

- Complete the Application and Admission Requirements for Baccalaureate Degrees (p. 46).
- Declaring a major in music assumes basic evidence of musicianship and performance ability. To demonstrate music skills, all incoming first-year and transfer students are required to complete an audition/performance evaluation prior to their first semester. This assists faculty in determining each student's readiness for entry into juried private-lessons, ensembles and academic music classes. Upon completion of the performance evaluation, faculty advisors will assist students in planning a first year of study best suited to their needs.

Special Considerations

- The **Piano Proficiency examination** must be passed prior to completion of 60 credits in the program. Music majors may be denied enrollment in certain upper-division music courses until this jury examination is passed. While not a degree requirement, it is recommended that students take MUS A156 Functional Piano in their first two years to prepare for this exam.
- Music majors taking **juried private-lessons** must during each semester of enrollment: 1) perform in at least one student recital; 2) stand for jury finals; 3) attend and provide technical support for department-approved concerts and recitals.
- Music majors choosing the **Performance** emphasis must complete a 30-minute junior-year recital and 60-minute senior-year recital. In these recitals, students must satisfactorily perform a program of artistic merit in public.
- Music majors choosing the **Education** emphasis must complete a 30-minute senior recital. In this recital, students must satisfactorily perform a program of artistic merit in public.

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (p. 442).
- Complete the General Education Requirements for Baccalaureate Degrees (p. 443).
- Complete the following major requirements:

Code	Title	Credits
Core Academic Courses		
MUS A131	Music Theory I	3
MUS A132	Music Theory II	3
MUS A133	Aural Skills I	1
MUS A134	Aural Skills II	1
Complete one of the following two courses:		3

MUS/AKNS A215	Music of Alaska Natives and Indigenous Peoples of Northern Regions	
MUS/AKNS A216	World Indigenous Music	
MUS A220	Music in Western Culture	3
MUS A231	Music Theory III	3
MUS A232	Music Theory IV	3
MUS A233	Aural Skills III	1
MUS A234	Aural Skills IV	1
MUS A331	Form and Analysis	3
MUS A380	Conducting	3
Core Performing Courses		
Private lessons on the major instrument:		
MUS A161	Private Lessons	2
MUS A162	Private Lessons	2
MUS A261	Private Lessons	2
MUS A262	Private Lessons	2
Major Ensemble [1]		10
MUS A301B	University Singers (voice)	
MUS A302B	Chamber Music and Accompanying (piano)	
MUS A303B	University Wind Ensemble (brass, winds, saxophone, percussion)	
MUS A307B	University Sinfonia (strings)	
MUS A405B	University Jazz Ensemble (saxophone, guitar, percussion)	
MUS A409B	University Guitar Ensemble (guitar)	
Master Class [2]		4
MUS A466	Instrumental Master Class	
MUS A467	Piano Master Class	
MUS A468	Voice Master Class	
Total		**50**

[1] *Five semesters of Major Ensemble are required. Choose the class appropriate to the major instrument.*

[2] *Four semesters of Master Class are required. Choose the class appropriate to the major instrument.*

A minimum of 120 credits is required for the degree, of which 39 credits must be upper division.

Honors in Music

The Bachelor of Arts in Music recognizes distinguished achievement by conferring programmatic honors in music. In order to receive honors in music, a student must meet the following requirements:

- Be a declared music major;
- Meet all requirements for the Bachelor of Arts in Music;
- Maintain a minimum cumulative GPA of 3.50 in all music courses applicable to the degree;
- Meet the requirements for Graduation with Honors (p. 30);
- Receive an honors score (based on criteria established by the department) on a comprehensive examination for majors.

Program Student Learning Outcomes

Students completing a degree in Music will be able to:

- Demonstrate technical proficiency on a chosen instrument appropriate to the degree with an attendant functional proficiency on piano.
- Demonstrate and analyze through musical literacy the basic technical principles used in the construction of music and its basic forms.
- Communicate a knowledge of the various musical periods and representative forms from those periods in the social, artistic and political context of each.

Bachelor of Music

The Bachelor of Music (BM) is a professional degree in music. By focusing on the development of skills and concepts for success as a musician, students work to achieve a high level of technical competence in their performing area while gaining a broad knowledge of history, theory and literature. With emphases in Performance or Education, the Bachelor of Music gives students an inclusive and collaborative experience that fosters lifelong habits in performing, scholarship, teaching and community engagement. The BM degree prepares students for graduate school, careers in education and a wide variety of musical activities and professions.

The Bachelor of Music is accredited by the National Association of Schools of Music (NASM).

Admission Requirements

- Complete the Admission Requirements for Baccalaureate Degrees (p. 46).
- Declaring a major in music assumes evidence of basic musicianship and performance ability. To demonstrate music skills, all incoming first-year and transfer students are required to complete an audition/performance evaluation prior to their first semester. This assists faculty in determining each student's readiness for entry into juried private-lessons, ensembles, and academic music classes. Students judged not ready for juried private lessons will be required to complete non-juried private lessons to build performance skills. Upon completion of the performance evaluation, faculty advisors will assist students in planning a first year of study best suited to their needs.

Special Considerations

- The **Piano Proficiency examination** must be passed prior to completion of 60 credits in the program. Music majors may be denied enrollment in certain upper-division music courses until this jury examination is passed. While not a degree requirement, it is recommended that students take MUS A156 Functional Piano in their first two years to prepare for this exam.

- Music majors taking **juried private-lessons** must during each semester of enrollment: 1) perform in at least one student recital; 2) stand for jury finals; 3) attend and provide technical support at department-approved concerts and recitals.
- Music majors choosing the **Performance** emphasis must complete a 30-minute junior-year recital and a 60-minute senior-year recital. In these recitals, students must demonstrate the ability to satisfactorily perform a program of artistic merit in public.
- Music majors choosing the **Education** emphasis must complete a 30-minute senior-year recital. In this recital, students must demonstrate the ability to satisfactorily perform a program of artistic merit in public.

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (p. 442).
- Complete the General Education Requirements for Baccalaureate Degrees (p. 443).
- Complete the following major requirements:

Code	Title	Credits
Core Academic Courses		
MUS A131	Music Theory I	3
MUS A132	Music Theory II	3
MUS A133	Aural Skills I	1
MUS A134	Aural Skills II	1
Choose one of the following two courses:		3
MUS/AKNS A215	Music of Alaska Natives and Indigenous Peoples of Northern Regions	
MUS/AKNS A216	World Indigenous Music	
MUS A220	Music in Western Culture	3
MUS A231	Music Theory III	3
MUS A232	Music Theory IV	3
MUS A233	Aural Skills III	1
MUS A234	Aural Skills IV	1
MUS A331	Form and Analysis	3
MUS A380	Conducting	3
Core Performing Courses		
Private Lessons on the major instrument:		
MUS A161	Private Lessons	2
MUS A162	Private Lessons	2
MUS A261	Private Lessons	2
MUS A262	Private Lessons	2
MUS A361	Private Lessons	2
MUS A362	Private Lessons	2
MUS A461	Private Lessons	2
MUS A462	Private Lessons	2
Major Ensemble [1]		16
MUS A301B	University Singers (voice) [2]	
MUS A302B	Chamber Music and Accompanying (piano)	
MUS A303B	University Wind Ensemble (brass, winds, sax, percussion) [2]	
MUS A307B	University Sinfonia (strings) [2]	
MUS A405B	University Jazz Ensemble (sax, guitar, percussion) [2]	
MUS A409B	University Guitar Ensemble (guitar) [2]	
Master Class [3]		8
MUS A466	Instrumental Master Class	
MUS A467	Piano Master Class	
MUS A468	Voice Master Class	
Chamber Ensemble [4]		2
MUS A302A	Chamber Music and Accompanying	
MUS A313	Opera and Music Theatre Workshop	
MUS A365	Chamber Ensemble	
MUS A405A	University Jazz Ensemble	
Complete one of the emphases below		
Total		**70**

1 *Eight semesters of Major Ensemble are required. Choose the class appropriate to the major instrument. All music students may take up to two semesters of an ensemble outside of the one designated for their major to fulfill this requirement.*

2 *Of the eight required semesters, piano majors must choose two semesters from MUS A301B, MUS A303B, MUS A307B, MUS A405B or MUS A409B.*

3 *Eight semesters of Master Class are required. Choose the class appropriate to the major instrument.*

4 *Two semesters of Chamber Music are required. Choose the class appropriate to the major instrument.*

Performance Emphasis

Code	Title	Credits
Choose two of the following Music History electives:		6
MUS A424	History of Music in the 20th and 21st Centuries	
MUS A425	History of Vocal and Choral Music in Europe and North America	
MUS A426	History of Instrumental Music in Europe and North America	
Choose one of the following Music Theory electives:		3
MUS A431	Counterpoint	
MUS A432	Orchestration	
Choose one additional Music History or Theory elective from above		3
Complete any 7 additional MUS credits		7

MUS A156 is recommended for students who need additional skill development in piano proficiency.	
Total	**19**

Education Emphasis

Code	Title	Credits
Choose one of the following Music History electives:		3
MUS A424	History of Music in the 20th and 21st Centuries	
MUS A425	History of Vocal and Choral Music in Europe and North America	
MUS A426	History of Instrumental Music in Europe and North America	
Methods and Techniques Courses:		12
MUS A371	Brass Methods and Techniques	
MUS A372	Woodwind Methods and Techniques	
MUS A373	String Methods and Techniques	
MUS A374	Choral Methods and Techniques	
MUS A375	Percussion Methods and Techniques	
MUS A376	Elementary Music Methods and Techniques	
Complete any 4 additional MUS credits		4
Total		**19**

A minimum of 120 credits are required for the Bachelor of Music, Performance or Education emphasis, of which 39 credits must be upper division.

Honors in Music

The Bachelor of Music in Music recognizes distinguished achievement by conferring programmatic honors in music. In order to receive honors in music, a student must meet the following requirements:

- Be a declared Music major;
- Meet all requirements for the Bachelor of Music degree;
- Maintain a minimum cumulative GPA of 3.50 in all Music courses applicable to the degree;
- Meet the requirements for Graduation with Honors (p. 30);
- Complete MUS A462, which includes a senior recital, with a minimum grade of B;
- Receive an honors score (based on criteria established by the department) on a comprehensive examination for majors.

Program Student Learning Outcomes

Students completing a degree in Music will be able to:

- Demonstrate technical proficiency on a chosen instrument appropriate to the degree with an attendant functional proficiency on piano.
- Demonstrate and analyze through musical literacy the basic technical principles used in the construction of music and its basic forms.
- Communicate a knowledge of the various musical periods and representative forms from those periods in the social, artistic and political context of each.

Minor in Music

Students majoring in another subject who wish to minor in music must complete the following requirements in one of the following two emphases.

History/Theory Emphasis

Code	Title	Credits
MUS A131	Music Theory I	3
MUS A121	Music Appreciation	3
or MUS A220	Music in Western Culture	
Complete 6 credits from the following:		6
MUS A100	History of Rock & Pop	
MUS A110	Popular Songwriting	
MUS A132	Music Theory II	
MUS A133	Aural Skills I	
MUS A134	Aural Skills II	
MUS A156	Functional Piano	
MUS/AKNS A215	Music of Alaska Natives and Indigenous Peoples of Northern Regions	
MUS/AKNS A216	World Indigenous Music	
MUS A224	History of Jazz	
Complete 6 credits from the following:		6
MUS A140	Introduction to Guitar	
MUS A161	Private Lessons [1]	
MUS A162	Private Lessons [1]	
MUS A261	Private Lessons [1]	
MUS A262	Private Lessons [1]	
MUS A290	Selected Topics in Music	
MUS A301A	University Singers	
MUS A301B	University Singers	
MUS A302A	Chamber Music and Accompanying	
MUS A302B	Chamber Music and Accompanying	
MUS A303A	University Wind Ensemble	
MUS A303B	University Wind Ensemble	
MUS A305	University Pep Band	
MUS A307A	University Sinfonia	
MUS A307B	University Sinfonia	
MUS A313	Opera and Music Theatre Workshop	
MUS A365	Chamber Ensemble	

MUS A405A	University Jazz Ensemble
MUS A405B	University Jazz Ensemble
MUS A409A	University Guitar Ensemble
MUS A409B	University Guitar Ensemble
MUS A466	Instrumental Master Class
MUS A467	Piano Master Class
MUS A468	Voice Master Class
MUS A490	Selected Topics in Music
Total	**18**

Performance Emphasis

Code	Title	Credits
MUS A131	Music Theory I	3
MUS A121	Music Appreciation	3
or MUS A220	Music in Western Culture	
MUS A161	Private Lessons [1]	2
MUS A162	Private Lessons [1]	2
Complete 8 credits from the following:		8
MUS A140	Introduction to Guitar	
MUS A261	Private Lessons [1]	
MUS A262	Private Lessons [1]	
MUS A290	Selected Topics in Music	
MUS A301A	University Singers	
MUS A301B	University Singers	
MUS A302A	Chamber Music and Accompanying	
MUS A302B	Chamber Music and Accompanying	
MUS A303A	University Wind Ensemble	
MUS A303B	University Wind Ensemble	
MUS A305	University Pep Band	
MUS A307A	University Sinfonia	
MUS A307B	University Sinfonia	
MUS A313	Opera and Music Theatre Workshop	
MUS A365	Chamber Ensemble	
MUS A405A	University Jazz Ensemble	
MUS A405B	University Jazz Ensemble	
MUS A409A	University Guitar Ensemble	
MUS A409B	University Guitar Ensemble	
MUS A466	Instrumental Master Class	
MUS A467	Piano Master Class	
MUS A468	Voice Master Class	
MUS A490	Selected Topics in Music	
Total		**18**

[1] *Students register for the class appropriate to the primary instrument (e.g. A161V for voice lessons).*

A minimum of 18 credits is required for the minor.

Occupational Endorsement Certificate in Natural Resources Technician

This program is delivered only through Prince William Sound College.

The Occupational Endorsement Certificate (OEC) in Natural Resource Technician provides Alaskan students with the skills and knowledge necessary for successful employment at the technician level in natural resources through hands-on training and coursework. Students will learn technical skills from content experts, as well as communicative and social skills required for success in this growing field. They will also interact directly with natural resource management organizations that are in need of skilled technician level employees, facilitating a transition from the program to employment.

Admission Requirements

- Complete the Admission Requirements for Occupational Endorsement Certificates (p. 46).
- Complete the Natural Resource Technician student application form.

Special Considerations

- Travel to and work in field settings for some projects.
- Work in inclement weather and/or for extended periods of time for some courses.
- Lift up to 22 kilograms for some projects.

Graduation Requirements

- Complete the General University Requirements for Occupational Endorsement Certificates (p. 440).
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
AGRI A104	Conservation of Natural Resources	3
BIOL A128	Biota of Alaska: Introduction to Field Ecology	3
GEOG A111	Discovering Alaska and Earth's Physical Geography: From Weather to Glaciers	3
Complete one of the following		3
COMM A111	Fundamentals of Oral Communication	
COMM A235	Small Group Communication	
WRTG A110	Introduction to College Writing	
WRTG A111	Writing Across Contexts	
Complete four additional credits from the following: [1]		4
EMT A100	Wilderness First Aid	

ITEC A295	Industrial Technology Internship	
KIN A112	First Aid and CPR for Professionals	
OSH A100	Basic Workplace Safety	
PER A170	Backpack Alaska	
UNIV A150	Strategies for College Success	
Total		**16**

[1] *Other relevant electives may be applied with departmental approval.*

A minimum of 16 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with an Occupational Endorsement Certificate in Natural Resources Technician will be able to:

- Perform relevant field tasks required of natural resource technicians
- Use a broad range of technical tools to document, map, measure, record and analyze data.
- Demonstrate an understanding of concepts and principles in natural resource management
- Demonstrate a practical knowledge of Alaskan ecosystems
- Identify and describe the important physical processes that shape the surface of the earth and produce global patterns.
- Demonstrate proficiency in small group communication and collaboration

Bachelor of Science in Natural Sciences

The Bachelor of Science (BS) in Natural Sciences provides a broad, customizable program of studies in the sciences, with coursework across multiple disciplines. It prepares students for advanced study or careers in the environmental sciences and the health professions. Graduates of the program have gone on to further study and jobs in a diversity of fields, such as veterinary, medical, and dental schools, and environmental consulting.

Admission Requirements

- Complete the Admission Requirements for Baccalaureate Programs (p. 46).
- Declare the major (see major requirements) and select one of two options: Pre-health Professions or Environmental Sciences. To declare the BS in Natural Sciences as their major, students must meet with an advisor to be accepted into the major. To schedule an advising session, contact the Department of Biological Sciences. At the advising session students are required to choose one of the two options.

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (p. 442).
- Complete the General Education Requirements for Baccalaureate Degrees (p. 443).
- It is recommended that mathematical and statistical requirements be completed in the first two years of study.
- No more than 6 credits may come from courses designated as A495, A498 and A499 combined, with no more than 2 credits from A495.
- No more than 2 credits may be A492.
- Courses not listed as approved for the BS in Natural Sciences may be considered by petition, which should be signed by an advisor.
- All prerequisites for courses used to meet the natural sciences degree requirements must be completed with a minimum grade of C. Students who audit a course intended to meet the natural sciences degree requirements or who are unable to earn a minimum grade of C in the course may repeat the course. Students who audit or are unable to earn a minimum grade of C in a lower-division (100- or 200-level) Biology (BIOL) course may repeat the course two additional times on a space-available basis. Students who audit or are unable to earn a minimum grade of C in an upper-division (300- or 400-level) BIOL or Microbiology (MBIO) course may repeat the course one additional time on a space-available basis. Students repeating a BIOL or MBIO course are required to complete all components of that course during the semester in which the course is retaken. When repeating a course with a lecture and laboratory component, both components must be repeated. Students enrolled in a BIOL or MBIO laboratory must attend lab the first week of class or they may be administratively dropped.
- All natural sciences majors are required to take an exit examination, a standardized test of knowledge. There is no minimum score required for graduation. The exam may be completed at the UAA Testing Center and a fee will be charged to students, or as part of BIOL A492.
- Complete the following major requirements with a minimum grade of C:

Environmental Sciences Option

Code	Title	Credits
BIOL A108	Principles and Methods in Biology	6
BIOL A271	Principles of Ecology	3
BIOL A273	Experiential Learning: Ecology and Evolution	4
BIOL A288	Principles of Evolution	3
BIOL A492	Undergraduate Seminar	1
CHEM A105 & A105L	General Chemistry I and General Chemistry I Laboratory	4
CHEM A106 & A106L	General Chemistry II and General Chemistry II Laboratory	4
ECON A210	Environmental Economics and Policy	3

GEOL A115 & A115L	Dangerous Earth and Dangerous Earth Laboratory	4
GEOG A470	Environmental Policy and Regulation in Alaska	3
PHIL A303	Environmental Ethics	3
STAT A253	Applied Statistics for the Sciences	4
or STAT A307	Probability and Statistics	
Complete 51 elective credits from the following, of which 36 must be upper-division:		51
Biology and Microbiology		
Complete a minimum of 18 credits from the following, at least 12 credits must be upper division:		
BIOL A242	Fundamentals of Cell Biology	
BIOL A252	Principles of Genetics	
BIOL A310	Principles of Animal Physiology	
BIOL A311	Experiential Learning: Animal Physiology	
BIOL A330	Plant Biology	
BIOL A415	Comparative Animal Physiology	
BIOL A418	Fish Physiology	
BIOL A423	Ichthyology	
BIOL A424	Experiential Learning: Ichthyology	
BIOL A427	Marine Invertebrate Biology	
BIOL A430	Marine Mammal Biology	
BIOL A431	Plant Diversity and Evolution	
BIOL A441	Animal Behavior	
BIOL A442	Experiential Learning: Animal Behavior	
BIOL A446	Global Climate Change	
BIOL A455	Experiential Learning: Bioinformatics	
BIOL A467	Wildlife Ecology	
BIOL A469	Arctic Environmental Security	
BIOL A472	Biogeography	
BIOL A473	Conservation Biology	
BIOL/CHEM A474	Ecotoxicology	
BIOL A477	Tundra and Taiga Ecosystems	
BIOL A478	Biological Oceanography	
BIOL A481	Marine Biology	
BIOL A483	Exploration Ecology	
BIOL A484	Experiential Learning: Exploration Ecology Field Study	
BIOL A486	Evolutionary Ecology	
BIOL A490	Selected Lecture Topics in Biology	
BIOL A498	Individual Research	
BIOL A499	Senior Thesis	
MBIO A340	Microbial Biology	
MBIO A342	Experiential Learning: Microbial Biology	
MBIO A410	Microbial Physiology	
MBIO A440	Microbial Diversity	
MBIO A450	Microbial Ecology	
MBIO A468	Geomicrobiology	
MBIO A470	Ecology and Evolution of Infectious Disease	
Geology		
Complete a minimum of 15 credits from the following:		
GEOL A221	Journey Through Time	
GEOL A225	Earth Surface Processes	
GEOL A320	Volcanology	
GEOL A315	Geological Data Visualization and Analysis	
GEOL A331	Sedimentology and Stratigraphy	
GEOL A333	Earthquakes and Seismic Hazards	
GEOL A361	Earth Resources and Society	
GEOL A441	Paleoclimatology	
GEOL A444	The Cryosphere	
GEOL A461	Geochemistry	
GEOL A463	Environmental Geochemistry	
GEOL A480	Geologic Field Methods	
GEOL A490	Advanced Topics in Geology	
GEOL A498	Student Research	
GEOL A499	Senior Thesis	
Math and Computational Skills		
Complete a minimum of 12 credits from the following:		
CS A109	Computer Programming (Languages Vary)	
or CSCE A201	Computer Programming I	
CSCE A360	Database Systems	
GIS A458	Spatial Data Management	
GIS A466	Spatial Analysis	
GIS A467	Image Analysis	
MATH A251	Calculus I	
or MATH A251F	F.A.T. Calculus I	
MATH A252	Calculus II	
or MATH A252F	F.A.T. Calculus II	
MATH A253	Calculus III	
STAT A308	Intermediate Statistics for the Sciences	
STAT A402	Scientific Sampling	
STAT A403	Regression Analysis	
STAT A407	Time Series Analysis	
Social Sciences Upper Division		
Complete a minimum of 6 credits from the following:		
ANTH A454	Culture and Ecology	
ANTH A477	Cultural Resource Management	
CEL A390	Special Topics in Civic Engagement	

ECON A445	Methods for Public Policy Evaluation	
ENGL A478	Public Science Writing	
GEOG A475	Geospatial and Cartographic Techniques for the Sciences	
SOC A404	Environmental Sociology	
Total		**93**

Pre-Health Professions Option

Code	Title	Credits
BIOL A108	Principles and Methods in Biology	6
BIOL A242	Fundamentals of Cell Biology	3
BIOL A252	Principles of Genetics	3
BIOL A492	Undergraduate Seminar	1
CHEM A105 & A105L	General Chemistry I and General Chemistry I Laboratory	4
CHEM A106 & A106L	General Chemistry II and General Chemistry II Laboratory	4
CHEM A321	Organic Chemistry I	3
CHEM A441	Principles of Biochemistry I [1]	3
or MBIO A340	Microbial Biology	
PHYS A123 & A123L	College Physics I and College Physics I Laboratory	4
PHYS A124 & A124L	College Physics II and College Physics II Laboratory	4
Complete 54 elective credits from the following, of which 31 must be upper-division:		54
Natural Sciences		
Complete a minimum of 21 credits from the following:		
BIOL A111	Human Anatomy and Physiology I	
BIOL A111L	Human Anatomy and Physiology I Lab	
BIOL A112	Human Anatomy and Physiology II	
BIOL A112L	Human Anatomy and Physiology II Lab	
BIOL A200	Introduction to Complexity	
BIOL A240	Introductory Microbiology for Health Sciences [2]	
BIOL A240L	Introductory Microbiology for Health Sciences Laboratory [3]	
BIOL A243	Experiential Learning: Cell Biology and Genetics	
BIOL A288	Principles of Evolution	
BIOL A310	Principles of Animal Physiology	
BIOL A311	Experiential Learning: Animal Physiology	
BIOL A320	Vertebrate Biology	
BIOL A321	Experiential Learning: Vertebrate Biology	
BIOL A412	Behavioral Endocrinology	
BIOL A413	Neurophysiology	
BIOL A415	Comparative Animal Physiology	
BIOL A417	Applied Kinesiology and Exercise Physiology	
BIOL A419	Sleep and Chronobiology	
BIOL A452	Human Genome	
BIOL A455	Experiential Learning: Bioinformatics	
BIOL A461	Molecular Biology	
BIOL A463	Molecular Biology of Cancer	
BIOL A465	Experiential Learning: Molecular Biology	
BIOL/CHEM A471	Immunology	
BIOL A487	Comparative Anatomy of Vertebrates	
BIOL A490	Selected Lecture Topics in Biology	
BIOL A495A	Internship in the Biological Sciences	
BIOL A498	Individual Research	
BIOM A418	Human Gross Anatomy	
CHEM A312	Quantitative Analysis	
CHEM A322	Organic Chemistry II	
CHEM A323L	Organic Chemistry Laboratory	
CHEM A411	Biophysical Chemistry	
CHEM A442	Principles of Biochemistry II	
CHEM A443	Biochemistry Laboratory	
CHEM A498	Individual Research	
MBIO A342	Experiential Learning: Microbial Biology [3]	
MBIO A410	Microbial Physiology	
MBIO A460	Host-Microbiome Interactions	
MBIO A462	Virology	
MBIO A470	Ecology and Evolution of Infectious Disease	
PHYS/BIOL/CHEM A456	Nonlinear Dynamics and Chaos	
Social Sciences		
Complete a minimum of 15 credits from the following:		
ANTH A101	Introduction to Anthropology	
ANTH A205	Biological Anthropology	
ANTH A452	Culture and Human Biodiversity	
ANTH A455	Culture and Health	
ANTH A490	Selected Topics in Anthropology	
ECON A101	Principles of Microeconomics	
ECON A102	Principles of Macroeconomics	
HS A210	Introduction to Environmental Health	
HS A220	Introduction to Population Health Sciences	

HS A230	Introduction to Global Health
HS A326	Introduction to Epidemiology
HS A370	Social and Cultural Determinants of Health
HS A492	Senior Seminar: Contemporary Health Policy
KIN A383	Movement Theory and Motor Development
KIN A384	Cultural and Psychological Aspects of Health and Physical Activity
PHIL A302	Biomedical Ethics
PSY A111	Introduction to Psychology
PSY A143	Death and Dying
PSY A150	Lifespan Development
PSY A200	Introduction to Behavior Analysis
PSY A260	Statistics for Psychology
PSY A260L	Statistics for Psychology Lab
PSY A261	Research Methods in Psychology
PSY A261L	Research Methods in Psychology Laboratory
PSY A316	Motivation and Emotion
PSY A345	Psychopathology
PSY A366	Sensation and Perception
PSY A367	Cognitive Psychology
PSY A368	Personality
PSY A370	Behavioral Neuroscience
PSY A375	Social Psychology
PSY A398	Individual Research
PSY A400	Strategies of Behavior Change
PSY A412	History of Psychology
PSY A425	Clinical Psychology
PSY A428	Evolutionary Psychology
PSY A442	Psychopathology of Childhood and Adolescence
PSY A447	Behavioral Supports for Neurodivergence
PSY A450	Adult Development and Aging
PSY A455	Interventions for Challenging Behavior
PSY A485	Health Psychology
PSY A498	Individual Research
URS A121	Methods of Inquiry
Math and Computational Skills	
Complete a minimum of 9 credits from the following:	
MATH A221	Applied Calculus for Managerial and Social Sciences
or MATH A251	Calculus I
or MATH A251F	F.A.T. Calculus I
MATH A252	Calculus II
or MATH A252F	F.A.T. Calculus II
MATH A253	Calculus III
MATH A261	Introduction to Discrete Mathematics
MATH A265	Fundamentals of Mathematics
MATH A302	Ordinary Differential Equations
MATH A305	Introduction to Geometries
MATH A306	Discrete Methods
MATH A314	Linear Algebra
MATH A401	Introduction to Real Analysis
MATH A405	Introduction to Abstract Algebra
MATH A410	Introduction to Complex Analysis
MATH A432	Partial Differential Equations
MATH A498	Individual Research
STAT A253	Applied Statistics for the Sciences
or STAT A307	Probability and Statistics
STAT A308	Intermediate Statistics for the Sciences
STAT A402	Scientific Sampling
STAT A403	Regression Analysis
STAT A407	Time Series Analysis
Total	**89**

[1] *If both CHEM A441 and MBIO A340 are taken, one will count as the required course and the other will count as a natural sciences elective.*

[2] *Students may not apply BIOL A240 and MBIO A340 toward their natural sciences electives.*

[3] *Students may not apply BIOL A240L and MBIO A342 toward their natural sciences electives.*

A minimum of 120 credits is required for the degree, of which 39 must be upper-division.

Program Student Learning Outcomes

Students graduating with a Bachelor of Science in Natural Sciences will be able to:

- Design and implement scientific investigations to explore natural phenomena using experimentation, which includes exploration and discovery, and testing ideas (gathering and interpreting data)
- Clearly and accurately communicate scientific ideas, theories, and observations in oral and written forms
- Apply scientific data, concepts, and models to craft interdisciplinary explanations of scientific ideas across two of the natural sciences

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the

rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

Sample Plan - Environmental Sciences Option

First Year		
Fall		**Credits**
CHEM A105 & A105L	General Chemistry I and General Chemistry I Laboratory	4
GEOL A115 & A115L	Dangerous Earth and Dangerous Earth Laboratory	4
WRTG A111	Writing Across Contexts	3
GER Oral Communication Skills		3
Program Elective: Math & Computational Skills		3
	Credits	**17**
Spring		
BIOL A108	Principles and Methods in Biology	6
CHEM A106 & A106L	General Chemistry II and General Chemistry II Laboratory	4
STAT A253 or STAT A307	Applied Statistics for the Sciences or Probability and Statistics	4
WRTG A213	Writing and the Sciences	3
	Credits	**17**
Second Year		
Fall		
BIOL A271	Principles of Ecology	3
BIOL A288	Principles of Evolution	3
GER Humanities		3
Program Elective: Geology		3
Program Elective: Math & Computational Skills		3
	Credits	**15**
Spring		
PHIL A303	Environmental Ethics	3
GER Social Sciences		3
Program Elective: Biology & Microbiology		3
Program Elective: Math & Computational Skills		3
Program Upper Division Elective: Geology		3
	Credits	**15**
Third Year		
Fall		
BIOL A273	Experiential Learning: Ecology and Evolution	4
GEOG A470	Environmental Policy and Regulation in Alaska	3
Program Elective: Math & Computational Skills		3
Program Upper Division Elective: Biology & Microbiology		3
Program Upper Division Elective: Geology		3
	Credits	**16**
Spring		
ECON A210	Environmental Economics and Policy	3
GER Humanities		3
Program Upper Division Elective: Biology & Microbiology		3
Program Upper Division Elective: Geology		3
Program Upper Division Elective: Social Sciences		3
	Credits	**15**
Fourth Year		
Fall		
GER Fine Arts		3
Program Upper Division Elective: Biology & Microbiology		3
Program Upper Division Elective: Geology		3
Program Upper Division Elective: Social Sciences		3
	Credits	**12**
Spring		
BIOL A492	Undergraduate Seminar	1
GER Alaska Native-Themed		3
GER Intercultural Fluency		3
Program Elective: Biology & Microbiology		3
Program Upper Division Elective: Biology & Microbiology		3
	Credits	**13**
	Total Credits	**120**

Sample Plan - Pre-Health Professions Option

First Year		
Fall		**Credits**
BIOL A108	Principles and Methods in Biology	6
CHEM A105 & A105L	General Chemistry I and General Chemistry I Laboratory	4
WRTG A111	Writing Across Contexts	3
Program Elective: Math & Computational Skills		3
	Credits	**16**
Spring		
BIOL A242	Fundamentals of Cell Biology	3
CHEM A106 & A106L	General Chemistry II and General Chemistry II Laboratory	4
WRTG A213	Writing and the Sciences	3
GER Oral Communication Skills		3
Program Elective: Math & Computational Skills (GER Quantitative Skills if not yet met)		3
	Credits	**16**
Second Year		
Fall		
CHEM A321	Organic Chemistry I	3
BIOL A252	Principles of Genetics	3
GER Fine Arts		3
Program Elective: Math & Computational Skills		3
Program Elective: Social Sciences		3
	Credits	**15**
Spring		
CHEM A441 or MBIO A340	Principles of Biochemistry I or Microbial Biology	3
GER Humanities		3
GER Social Sciences		3
Program Elective: Natural Sciences		3
Program Elective: Social Sciences		3
	Credits	**15**
Third Year		
Fall		
PHYS A123 & A123L	College Physics I and College Physics I Laboratory	4
GER Humanities		3
GER Social Sciences		3
Program Upper Division Elective: Natural Sciences		3
Program Upper Division Elective: Social Sciences		3
	Credits	**16**
Spring		
PHYS A124 & A124L	College Physics II and College Physics II Laboratory	4
GER Alaska Native-Themed		3
GER Intercultural Fluency		3
Program Upper Division Elective: Natural Sciences		3
Program Upper Division: Social Sciences		3
	Credits	**16**
Fourth Year		
Fall		
BIOL A492	Undergraduate Seminar	1
GER Integrative Capstone		3
Program Elective: Natural Sciences		3
Program Upper Division Elective: Natural Sciences		3
Program Upper Division Elective: Social Sciences		3
	Credits	**13**
Spring		
Program Upper Division Elective		3
Program Upper Division Elective		3
Program Upper Division Elective		3
Program Upper Division Elective: Natural Sciences		3
Program Upper Division Elective: Natural Sciences		3
	Credits	**15**
	Total Credits	**122**

Minor in Neuroscience

Students who wish to minor in neuroscience must complete the following requirements:

Code	Title	Credits
Complete two of the following:		6
BIOL A412	Behavioral Endocrinology [1]	
BIOL A413	Neurophysiology [1]	
PSY A370	Behavioral Neuroscience [1]	
Complete 12 credits from the following: [2, 3]		12
ANTH A205	Biological Anthropology	
ATA A331	Human Factors in Aviation	
ATP A433	Aerospace Physiology	
BA A490A	Current Topics in Business (BA A490A Artificial Intelligence with Business Applications) [4]	
BA A608	Artificial Intelligence with Business Applications	
BIOL A111 & A111L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Lab	
BIOL A252	Principles of Genetics	
BIOL A310	Principles of Animal Physiology	
BIOL A311	Experiential Learning: Animal Physiology	
BIOL A412	Behavioral Endocrinology [1]	
BIOL A413	Neurophysiology [1]	
BIOL A419	Sleep and Chronobiology	

BIOL A452	Human Genome
BIOL A498	Individual Research
BIOL A499	Senior Thesis
CHEM A441	Principles of Biochemistry I
CHEM A442	Principles of Biochemistry II
CHEM A498	Individual Research
KIN A383	Movement Theory and Motor Development
KIN A384	Cultural and Psychological Aspects of Health and Physical Activity
MBIO A340	Microbial Biology
PHIL A309	Mind and Machines
PSY A316	Motivation and Emotion
PSY A345	Psychopathology
PSY A366	Sensation and Perception
PSY A367	Cognitive Psychology
PSY A370	Behavioral Neuroscience
PSY A398	Individual Research
PSY A428	Evolutionary Psychology
PSY A468	Learning and Behavior
PSY A468L	Learning and Behavior Laboratory
PSY A498	Individual Research
Total	**18**

1 *Only two of BIOL A412, BIOL A413, and PSY A370 can count toward the required credits. The other course may be taken as an elective. Each course can only count toward the required or elective credits but not both.*

2 *In combined total, no more than 6 credits of BIOL and MBIO can count toward the 12 elective credits required for the minor. No more than 6 credits of PSY can count toward the 12 elective credits required for the minor.*

3 *In combined total, up to 3 credits in BIOL A498, BIOL A499, CHEM A498, PSY A398, PSY A498 or PSY A499 can count toward the 12 elective credits for the minor. Research and/or thesis must be in a relevant topic with the approval of the neuroscience minor committee.*

4 *Students may apply a different selected topics course in a relevant topic with the approval of the neuroscience minor committee.*

A minimum of 18 credits is required for the minor, of which 6 must be upper-division.

Bachelor of Arts in Philosophy

Philosophy is the creative and critical reflection on enduring questions concerning the nature of the world and our place in it. For example, philosophy asks metaphysical questions about what exists, epistemic questions about what we can claim to know, and ethical questions about the nature of the good life and right action. In addition, philosophy involves the study and practice of good reasoning and clear thinking, skills that are essential to any discipline or profession.

Admission Requirements

- Complete the Admission Requirements for Baccalaureate Programs (p. 46).

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (p. 442).
- Complete the General Education Requirements for Baccalaureate Degrees (p. 443).
- Occasionally, other departments offer courses that are notably relevant for a student's academic focus. Students wishing to count such a course toward their philosophy degree must first consult with the Philosophy Department chair.
- Complete the following major requirements:

Code	Title	Credits
Core Courses		
PHIL A101	Introduction to Logic	3
PHIL A201	Introduction to Philosophy	3
PHIL A211	Ancient and Medieval Philosophy	3
PHIL A212	Early Modern Philosophy	3
PHIL A301	Ethics	3
PHIL A311	Truth and Reality	3
PHIL A309	Mind and Machines	3
or PHIL A321	God, Self, and the Afterlife	
PHIL A350	Contemporary Social and Political Philosophy	3
or PHIL A406	Philosophy of Law	
Mastery Course		
PHIL A490	Topics in Contemporary Philosophy	3
Electives		
Complete 9 additional upper-division credits from the department's course offerings.		9
Total		**36**

A minimum of 120 credits is required for the degree, of which 39 credits must be upper-division.

Honors in Philosophy

The Bachelor of Arts in Philosophy recognizes distinguished achievement by conferring programmatic honors in philosophy. In order to receive honors in philosophy, a student must meet the following requirements:

- Meet the requirements for a Bachelor of Arts in Philosophy;
- Meet the requirements for Graduation with Honors (p. 30) as outlined in the catalog;
- Maintain a minimum cumulative GPA of 3.75 in courses specific to the philosophy major;

- Complete PHIL A498 with a grade of A, and a recommendation for departmental honors from the student's faculty committee for this course;
- Notify the chair in writing on or before date on which the Application for Graduation is filed with the Office of the Registrar of the intention to graduate with departmental honors.

Program Student Learning Outcomes

Students completing a BA in Philosophy will be able to:

- Identify, comprehend, analyze, and evaluate complex philosophical arguments in oral and written discourse.
- Understand, analyze, interpret, and apply major works in the areas of the history of philosophy, ethics, and contemporary topics.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
PHIL A201	Introduction to Philosophy	3
WRTG A111	Writing Across Contexts	3
GER Fine Arts		3
GER Oral Communication Skills		3
GER Quantitative Skills		3
	Credits	**15**
Spring		
PHIL A101	Introduction to Logic	3
WRTG A211	Writing and the Humanities	3
GER Natural Sciences		3
GER Natural Sciences Lab		1
GER Social Sciences		3
Elective		2
	Credits	**15**
Second Year		
Fall		
PHIL A211	Ancient and Medieval Philosophy [1]	3
GER Natural Sciences		3
GER Social Sciences		3
Elective		3
Elective		3
	Credits	**15**
Spring		
PHIL A212	Early Modern Philosophy [2]	3
GER Alaska Native-Themed		3
Elective		3
Elective		3
Elective		3
	Credits	**15**
Third Year		
Fall		
PHIL A301	Ethics	3
PHIL A311	Truth and Reality [1]	3
Upper Division Elective		3
Upper Division Elective		3
Upper Division Elective		3
	Credits	**15**
Spring		
PHIL A309 or PHIL A321	Mind and Machines [2] or God, Self, and the Afterlife	3
Elective		3
Elective		3
Upper Division Elective		3
Upper Division Program Elective		3
	Credits	**15**

Fourth Year		
Fall		
PHIL A350 or PHIL A406	Contemporary Social and Political Philosophy or Philosophy of Law	3
PHIL A490	Topics in Contemporary Philosophy	3
Elective		3
Elective		3
Elective		3
	Credits	**15**
Spring		
GER Integrative Capstone		3
Elective		3
Elective		3
Upper Division Program Elective		3
Upper Division Program Elective		3
	Credits	**15**
	Total Credits	**120**

[1] *PHIL A211 and PHIL A311 are only offered in the fall.*
[2] *PHIL A212, PHIL A309, and PHIL A321 are only offered in the spring.*

Minor in Philosophy

Philosophy is the creative and critical reflection on enduring questions concerning the nature of the world and our place in it. For example, philosophy asks metaphysical questions about what exists, epistemic questions about what we can claim to know, and ethical questions about the nature of the good life and right action. In addition, philosophy involves the study and practice of good reasoning and clear thinking, skills that are essential to any discipline or profession.

Students majoring in another subject who wish to minor in philosophy must complete the following requirements.

Code	Title	Credits
Ways of Knowing:		
Complete one of the following:		3
PHIL A101	Introduction to Logic	
PHIL A201	Introduction to Philosophy	
PHIL A301	Ethics	
Foundations of Philosophy		
PHIL A211	Ancient and Medieval Philosophy	3
PHIL A212	Early Modern Philosophy	3
Upper Division Electives		
Choose any three upper-division philosophy courses.		9
Total		**18**

A total of 18 credits is required for the minor, 9 of which must be upper-division.

Bachelor of Arts in Political Science

Admission Requirements

Complete the Application and Admission Requirements for Baccalaureate Programs (p. 46).

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (p. 442).
- Complete the General Education Requirements for Baccalaureate Degrees (p. 443).
- Complete the following major requirements:

Code	Title	Credits
Core Courses		
PS A101	Introduction to American Government	3
PS A102	Introduction to Political Science	3
PS A492	Senior Seminar in Politics	3
Complete one course from each of the four areas below:		12
Comparative Politics		
PS A301	States and Markets	
PS A311	Comparative Politics	
International Relations		
PS A321	International Relations	
PS A322	United States Foreign Policy	
Political Philosophy		
PS A332	History of Political Philosophy I: Classical	
PS A333	History of Political Philosophy II: Modern	
American Politics		
PS A330	American Political Thought	
PS A353	American Political Development	
Electives		
Complete 12 additional credits in PS courses. PS A490 may be repeated for up to 6 credits with a change in subtitle.		12

A total of 120 credits is required for the degree, of which 39 credits must be upper-division; a minimum of 33 credits must be from PS courses.

Honors in Political Science

Students majoring in political science are eligible to graduate with departmental honors if they satisfy all of the following requirements:

- Meet the requirements for a Bachelor of Arts in Political Science;
- Maintain a minimum GPA of 3.50 in courses applicable to the degree requirements;
- Complete PS A492 in the final term of study with a grade of A or B;

- Receive an honors score (based upon criteria established by the department) on a comprehensive examination for majors.

Departmental honors are awarded by the political science faculty.

Program Student Learning Outcomes

Students graduating with a Bachelor of Arts in Political Science will be able to:

- Demonstrate the ability to write clear and precise English prose.
- Demonstrate the ability to understand basic principles of American government.
- Demonstrate the ability to understand the relationship between the United States and the larger world.
- Demonstrate the ability to identify and criticize competing political science arguments.
- Demonstrate the ability to identify and interpret important political texts.
- Demonstrate the ability to write a satisfactory senior-level research paper.
- Demonstrate knowledge of each recognized field within political science.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
PS A101	Introduction to American Government	3
WRTG A111	Writing Across Contexts	3
GER Fine Arts		3
GER Humanities		3
GER Quantitative Skills		3
	Credits	**15**
Spring		
PS A102	Introduction to Political Science	3
GER Humanities		3
GER Natural Sciences Lab		1
GER Natural Sciences Lecture		3
GER Oral Communication Skills		3
GER Written Communication Skills (200-level)		3
	Credits	**16**
Second Year		
Fall		
PS A301 or PS A311	States and Markets or Comparative Politics	3
PS A321 or PS A322	International Relations or United States Foreign Policy	3
GER Alaska Native-Themed		3
GER Intercultural Fluency		3
GER Natural Sciences Lecture		3
	Credits	**15**
Spring		
PS A330 or PS A353	American Political Thought or American Political Development	3
PS A332 or PS A333	History of Political Philosophy I: Classical or History of Political Philosophy II: Modern	3
Upper Division Program Elective (300-400 level PS course)		3
Upper Division Program Elective (300-400 level PS course)		3
Upper Division Elective		3
	Credits	**15**
Third Year		
Fall		
PS A492	Senior Seminar in Politics	3
Upper Division Program Elective (300-400 level PS course)		3
Upper Division Program Elective (300-400 level PS course)		3
Upper Division Elective		3

Upper Division Elective	3
Credits	**15**
Spring	
Upper Division Elective	3
Upper Division Elective	3
Elective	3
Elective	3
Elective	3
Credits	**15**
Fourth Year	
Fall	
Elective	3
Elective	3
Elective	3
Elective	3
Elective	3
Credits	**15**
Spring	
Elective	3
Elective	3
Elective	3
Elective	3
Elective	2
Credits	**14**
Total Credits	**120**

Minor in Political Science

Students wishing to minor in political science must complete the following requirements.

Code	Title	Credits
Introductory Courses		
PS A101	Introduction to American Government *	3
PS A102	Introduction to Political Science *	3
Upper-division Political Science courses		12
Total		**18**

* *Courses required for political science minors that may be used to meet General Education Requirements.*

A total of 18 credits is required for the minor.

Minor in Physics

Students majoring in another subject who wish to minor in physics must complete the following requirements:

Code	Title	Credits
PHYS A211	General Physics I	3
PHYS A211L	General Physics I Laboratory	1
PHYS A212	General Physics II	3
PHYS A212L	General Physics II Laboratory	1
PHYS A303	Modern Physics	3
Upper-division physics electives		7
Students may also select one of the courses listed below:		
ME A408	Mechanical Vibrations	
ME A442	Advanced Fluid Mechanics	
EE A324L	Electromagnetics Laboratory II	
Total		**18**

A minimum of 18 credits is required for the minor.

Occupational Endorsement Certificate in Professional Writing

The Occupational Endorsement Certificate (OEC) in Professional Writing provides students focused training in writing, offering skills in multiple genres and styles of written communication used in the workplace.

Admission Requirements

- Complete the Admission Requirements for Occupational Endorsement Certificates (p. 46).
- Placement into WRTG A111 or higher. For testing schedule, contact the UAA Testing Center.

Graduation Requirements

- Complete the General University Requirements for Occupational Endorsement Certificates (p. 440).
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
WRTG A111	Writing Across Contexts	3
Complete 3 credits from the following:		3
WRTG A211	Writing and the Humanities	
WRTG A212	Writing and the Professions	
WRTG A213	Writing and the Sciences	
WRTG A214	Arguing Across Contexts	
Complete 6 credits from the following:		6
ENGL A311	Writing in Public Life	
ENGL A312	Technical Writing and Design	
ENGL A313	Professional Writing	
ENGL A478	Public Science Writing	
WRTG A280	Introduction to Grant Writing	
WRTG A290	Selected Topics in Writing	
WRTG A295	Internship in Community or Professional Writing	

Complete 6 credits from the following:		6
ENGL A414	Research Writing	
ENGL A433	Literacy, Rhetoric and Social Practice	
ENGL A495	Internship in Professional Writing	
JPC A345	Web Design	
or JPC A362	Principles of Strategic Communications	
or JPC A366	Planning and Writing for Strategic Communications	
or PHIL A305	Professional Ethics	
Total		**18**

A minimum of 18 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with an Occupational Endorsement Certificate in Professional Writing will be able to:

- Construct texts that are responsive to audience, purpose, genre, and voice
- Engage in written discourse in diverse communities
- Revise texts based on evidence and style

Bachelor of Arts in Psychology

The Department of Psychology at the University of Alaska Anchorage offers undergraduate and graduate degree and certificate programs aimed at preparing students 1) for advanced study in the social and health sciences and 2) to become members of the behavioral health workforce. The department also maintains the Psychological Services Center, a clinic that provides low cost mental health services to campus and community members. The department strives to offer degree and certificate programs that meet the needs of the state of Alaska.

Licensure and/or Certification

The Bachelor of Arts in Psychology with a Concentration in Behavior Analysis is designed to meet the educational requirements for professional licensure or certification in the State of Alaska. However, the program might not meet the educational requirements for professional licensure or certification in other states. Please see UAA's Licensure and Certification website (https://www.uaa.alaska.edu/academics/office-of-academic-affairs/licensure.cshtml/) for more information.

Admission Requirements

- Complete the Admission Requirements for Baccalaureate Degrees (p. 46).
- Students wishing to declare psychology as a major must have earned a minimum GPA of 2.50.

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (p. 442).
- Complete the General Education Requirements for Baccalaureate Degrees. (p. 443)
- All psychology majors are also required to take the exit examination, a standardized test of knowledge of psychology approved by the Department of Psychology. There is no minimum score required for graduation. This exam is taken in the UAA Testing Center, and a fee will be charged to students.
- Complete the following major requirements with a minimum cumulative GPA of 2.00 (C):

Code	Title	Credits
Core Courses		
PSY A111	Introduction to Psychology	3
PSY A150	Lifespan Development	3
PSY A200	Introduction to Behavior Analysis	3
PSY A260	Statistics for Psychology	3
PSY A260L	Statistics for Psychology Lab	1
PSY A261 & A261L	Research Methods in Psychology and Research Methods in Psychology Laboratory	4
PSY A345	Psychopathology	3
PSY A370	Behavioral Neuroscience	3
PSY A375	Social Psychology	3
PSY A468 & A468L	Learning and Behavior and Learning and Behavior Laboratory	4
Psychology Capstone Requirement [1]		**3**
Each capstone option is designed to synthesize and apply material from the psychology major. Choice of a capstone should be based, at least in part, on the student's future career plans. Students planning to work in human service jobs following graduation should consider taking PSY A495B. Students planning on graduate work in psychology should consider taking PSY A412, PSY A428, PSY A490, or PSY A499. Students may elect to take all of these courses as upper-division electives.		
PSY A412	History of Psychology	
PSY A428	Evolutionary Psychology	
PSY A490	Advanced Topics in Psychology	
PSY A495B	Applied Clinical Skills Practicum	
PSY A499	Senior Thesis	
Psychology Electives		**9**
Complete an additional 9 credits of upper-division psychology courses.		
Writing		**3**
WRTG A213	Writing and the Sciences	
Mathematics and Statistics		**3**
MATH A121	Applied College Algebra	
or STAT A200	Elementary Statistics	
Biology		**3-6**
BIOL A102	Introductory Biology	
or BIOL A108	Principles and Methods in Biology	

Additional Electives	**6-8**
Complete any two-semester sequence in humanities or any language	
Total	**57-62**

[1] *All of the psychology capstone courses have rigorous prerequisites. Minimum grades of C in these prerequisites are required for admission into the capstone courses. See course descriptions of each capstone course for more details.*

A minimum of 120 credits is required for this degree, of which 39 credits must be upper-division.

Concentration in Behavior Analysis

This concentration provides foundational knowledge and professional skills to apply the science of behavior analysis across a range of settings and client populations, including staff in the workplace, children and adults with intellectual and cognitive disabilities, and individuals with autism spectrum disorder.

Completing the coursework below, in addition to required supervised practicum experience with a Board Certified Behavior Analyst, helps prepare students to apply for the Behavior Analysis Certification Board examination for becoming a Board Certified Assistant Behavior Analyst.

Code	Title	Credits
PSY A400	Strategies of Behavior Change	3
PSY A410	Single Subject Research Designs	3
PSY A411B	Ethics for Behavior Analysts	3
PSY A468	Learning and Behavior	3
PSY A468L	Learning and Behavior Laboratory	1
PSY A478	Applications of Behavior Analysis	3
PSY A495B	Applied Clinical Skills Practicum	3
Complete a minimum of 3 credits from the following:		3
PSY A413	Behavioral Assessment	
PSY A447	Behavioral Supports for Neurodivergence	
PSY A455	Interventions for Challenging Behavior	
PSY A467	Organizational Behavior Management	
Total		**22**

Honors in Psychology

The Bachelor of Arts in Psychology recognizes distinguished achievement by conferring programmatic honors in psychology. In order to receive honors in psychology, a student must meet the following requirements:

- Satisfy all requirements for a Bachelor of Arts in Psychology;
- Maintain a minimum overall and psychology specific GPA of 3.50;
- Complete a total of three capstone courses:
  - One Psychology Capstone taken to meet the degree requirements
  - PSY A499. The thesis project must be approved by the Undergraduate Studies Committee and carried out by following applicable departmental guidelines
  - One additional Capstone course or a second term of PSY A499.
- Students intending to graduate with departmental honors must notify the Departmental Honors Committee in writing on or before the date they file their Application for Graduation with the Office of the Registrar.

Honors Student Learning Outcomes

Students graduating with departmental honors in psychology will possess:

- An advanced understanding and application of descriptive and inferential statistics and use of statistical software in data analysis.
- A broad knowledge of psychology's historical foundation.
- The ability to conduct a critical review and analysis of existing psychological literature.
- The ability to design and execute empirical research that tests clearly stated hypotheses or addresses clearly articulated research questions.
- A clear understanding of research ethics and the responsible conduct of research in the field of psychology.
- The ability to communicate effectively in writing, in poster format, and in oral presentations, including mastery of APA style.
- The ability to draw conclusions from research findings, including recognition of the limitations, applications, and implications of the data, and a discussion of alternative explanations of the results.

Program Student Learning Outcomes

Students graduating with a Bachelor of Arts in Psychology will be able to:

- Possess a broad knowledge of contemporary psychology.
- Have experience conducting psychological research.
- Be able to demonstrate skills in research design and data analysis.
- Be prepared for advanced study in psychology and related disciplines.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year

Fall		**Credits**
BIOL A102	Introductory Biology	3
MATH A105	Intermediate Algebra	4
PSY A111	Introduction to Psychology	3
WRTG A111	Writing Across Contexts	3
Elective		2
	Credits	**15**
Spring		
MATH A121 or STAT A200	Applied College Algebra or Elementary Statistics	3
PSY A150	Lifespan Development	3
WRTG A213	Writing and the Sciences	3
GER Natural Sciences		3
GER Natural Sciences Lab		1
GER Oral Communication Skills		3
	Credits	**16**

Second Year

Fall		
PSY A200	Introduction to Behavior Analysis	3
PSY A260 & A260L	Statistics for Psychology and Statistics for Psychology Lab	4
GER Alaska Native-Themed		3
GER Fine Arts		3
Elective		3
	Credits	**16**
Spring		
PSY A261 & A261L	Research Methods in Psychology and Research Methods in Psychology Laboratory	4
PSY A345	Psychopathology	3
GER Intercultural Fluency		3
Elective		3
Upper Division Elective		3
	Credits	**16**

Third Year

Fall		
PSY A375	Social Psychology	3
PSY A468 & A468L	Learning and Behavior and Learning and Behavior Laboratory	4
Program Elective: Humanities or Language Sequence 1		3
Upper Division Program Elective		3
	Credits	**13**
Spring		
PSY A370	Behavioral Neuroscience	3
Elective		3
Program Elective: Humanities or Language Sequence 2		3
Upper Division Elective		3
Upper Division Elective		3
	Credits	**15**

Fourth Year

Fall		
PSY A412 or PSY A428 or PSY A490 or PSY A495B or PSY A499	History of Psychology or Evolutionary Psychology or Advanced Topics in Psychology or Applied Clinical Skills Practicum or Senior Thesis	1-3
Elective		3
Elective		3
Upper Division Elective		3
Upper Division Program Elective		3
	Credits	**13-15**
Spring		
Elective		3
Elective		3
Elective		3
Upper Division Elective		3
Upper Division Program Elective		3
	Credits	**15**
	Total Credits	**119-121**

Bachelor of Science in Psychology

The Department of Psychology at the University of Alaska Anchorage offers undergraduate and graduate degree and certificate programs

aimed at preparing students: (1) for advanced study in the social and health sciences, and (2) to become members of the behavioral health workforce. The department also maintains the Psychological Services Center, a clinic that provides low-cost mental health services to campus and community members. The department strives to offer degree and certificate programs that meet the needs of the state of Alaska.

Licensure and/or Certification

The Bachelor of Science in Psychology with a Concentration in Behavior Analysis is designed to meet the educational requirements for professional licensure or certification in the State of Alaska. However, the program might not meet the educational requirements for professional licensure or certification in other states. Please see UAA's Licensure and Certification website (https://www.uaa.alaska.edu/academics/office-of-academic-affairs/licensure.cshtml/) for more information.

Admission Requirements

- Complete the Admission Requirements for Baccalaureate Degrees (p. 46).
- Students wishing to declare psychology as a major must have earned a minimum GPA of 2.50.

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (p. 442).
- Complete the General Education Requirements for Baccalaureate Degrees (p. 443).
- All psychology majors are required to take the exit examination, a standardized test of knowledge of psychology approved by the Department of Psychology. There is no minimum score required for graduation. The exam is taken in the UAA Testing Center, and a fee will be charged to students.
- Complete the following major requirements with a minimum cumulative GPA of 2.00 (C):

Code	Title	Credits
Core Courses		
PSY A111	Introduction to Psychology	3
PSY A150	Lifespan Development	3
PSY A200	Introduction to Behavior Analysis	3
PSY A260	Statistics for Psychology	3
PSY A260L	Statistics for Psychology Lab	1
PSY A261 & A261L	Research Methods in Psychology and Research Methods in Psychology Laboratory	4
PSY A345	Psychopathology	3
PSY A370	Behavioral Neuroscience	3
PSY A375	Social Psychology	3
PSY A468 & A468L	Learning and Behavior and Learning and Behavior Laboratory	4
Psychology Capstone Requirement [1]		**3**

Each capstone option is designed to synthesize and apply material from the psychology major. Choice of a capstone should be based, at least in part, on the student's future career plans. Students planning to work in human service jobs following graduation should consider taking PSY A495B. Students planning on graduate work in psychology should consider taking PSY A412, PSY A428, PSY A490, or PSY A499. Students may elect to take all of these courses as upper-division electives.

PSY A412	History of Psychology	
PSY A428	Evolutionary Psychology	
PSY A490	Advanced Topics in Psychology	
PSY A495B	Applied Clinical Skills Practicum	
PSY A499	Senior Thesis	
Psychology Electives		**9**
Complete an additional 9 credits of upper-division psychology courses.		
Writing		**3**
WRTG A213	Writing and the Sciences	
Mathematics and Statistics		**6-8**
Complete two of the following:		
MATH A121	Applied College Algebra	
or MATH A151	College Algebra for Calculus	
MATH A221	Applied Calculus for Managerial and Social Sciences	
SOC A462	Social Science Statistics	
STAT A200	Elementary Statistics	
STAT A253	Applied Statistics for the Sciences	
Biology		**7-16**
BIOL A102	Introductory Biology	
or BIOL A108	Principles and Methods in Biology	
Complete at least two of the following courses:		
BIOL A111 & A111L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Lab	
BIOL A112 & A112L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Lab	
BIOL A200	Introduction to Complexity	
BIOL A240 & A240L	Introductory Microbiology for Health Sciences and Introductory Microbiology for Health Sciences Laboratory	
BIOL A242	Fundamentals of Cell Biology	
BIOL A252	Principles of Genetics	
BIOL A273	Experiential Learning: Ecology and Evolution	
BIOL A288	Principles of Evolution	
BIOL A311	Experiential Learning: Animal Physiology	

BIOL A320	Vertebrate Biology
BIOL A321	Experiential Learning: Vertebrate Biology
BIOL A412	Behavioral Endocrinology
BIOL A413	Neurophysiology
BIOL A415	Comparative Animal Physiology
BIOL A417	Applied Kinesiology and Exercise Physiology
BIOL A418	Fish Physiology
BIOL A419	Sleep and Chronobiology
BIOL A423	Ichthyology
BIOL A424	Experiential Learning: Ichthyology
BIOL A427	Marine Invertebrate Biology
BIOL A430	Marine Mammal Biology
BIOL A441	Animal Behavior
BIOL A442	Experiential Learning: Animal Behavior
BIOL A452	Human Genome
BIOL A455	Experiential Learning: Bioinformatics
BIOL A461	Molecular Biology
BIOL A463	Molecular Biology of Cancer
BIOL A467	Wildlife Ecology
BIOL/CHEM A471	Immunology
BIOL A472	Biogeography
BIOL A473	Conservation Biology
BIOL/CHEM A474	Ecotoxicology
BIOL A477	Tundra and Taiga Ecosystems
BIOL A481	Marine Biology
BIOL A483	Exploration Ecology
BIOL A484	Experiential Learning: Exploration Ecology Field Study
BIOL A486	Evolutionary Ecology
BIOL A487	Comparative Anatomy of Vertebrates
Experimental and Scientific Foundations	**6-7**
Complete two of the following:	
ANTH A205	Biological Anthropology
ANTH A452	Culture and Human Biodiversity
ANTH A455	Culture and Health
CHEM A103	Introduction to General Chemistry
CHEM A104	Introduction to Organic and Biochemistry
CHEM A105	General Chemistry I
CHEM A106	General Chemistry II
CHEM A321	Organic Chemistry I
CHEM A322	Organic Chemistry II
CHEM A441	Principles of Biochemistry I
CHEM A442	Principles of Biochemistry II
CS A109	Computer Programming (Languages Vary)
ECON A101	Principles of Microeconomics
ECON A102	Principles of Macroeconomics
ECON A333	Experimental Economics
ECON A456	Behavioral Economics
Total	**64-76**

[1] *All of the above psychology capstone courses have rigorous prerequisites. Minimum grades of C in these prerequisites are required for admission into psychology's capstone courses.*

A minimum of 120 credits is required for this degree, of which 39 credits must be upper-division.

Concentration in Behavior Analysis

This concentration provides foundational knowledge and professional skills to apply the science of behavior analysis across a range of settings and client populations, including staff in the workplace, children and adults with intellectual and cognitive disabilities, and individuals with autism spectrum disorder.

Completing the coursework below, in addition to required supervised practicum experience with a Board Certified Behavior Analyst, helps prepare students to apply for the Behavior Analysis Certification Board examination for becoming a Board Certified Assistant Behavior Analyst.

This program is designed to meet the requirements for professional licensure or certification in the State of Alaska. However, the program might not meet the educational requirements for professional licensure or certification in other states. Please see UAA's Licensure and Certification website (https://www.uaa.alaska.edu/academics/office-of-academic-affairs/licensure.cshtml/) for more information.

Code	Title	Credits
Concentration requirements:		
PSY A400	Strategies of Behavior Change	3
PSY A410	Single Subject Research Designs	3
PSY A411B	Ethics for Behavior Analysts	3
PSY A468	Learning and Behavior	3
PSY A468L	Learning and Behavior Laboratory	1
PSY A478	Applications of Behavior Analysis	3
PSY A495B	Applied Clinical Skills Practicum	3
Complete a minimum of 3 credits of the following:		3
PSY A413	Behavioral Assessment	
PSY A447	Behavioral Supports for Neurodivergence	
PSY A455	Interventions for Challenging Behavior	
PSY A467	Organizational Behavior Management	
Total		**22**

Honors in Psychology

The Bachelor of Science in Psychology recognizes distinguished achievement by conferring programmatic honors in psychology. In order to receive honors in psychology, a student must meet the following requirements:

- Satisfy all requirements for a Bachelor of Science in Psychology;
- Maintain a minimum overall and psychology specific GPA of 3.50;
- Complete a total of three capstone courses:
  - One Psychology Capstone taken to meet the degree requirements.
  - PSY A499. The thesis project must be approved by the Undergraduate Studies Committee and carried out by following applicable departmental guidelines.
  - One additional Psychology Capstone course or a second term of PSY A499.
- Students intending to graduate with departmental honors must notify the Departmental Honors Committee in writing on or before the date they file their Application for Graduation with the Office of the Registrar.

Honors Student Learning Outcomes

Students graduating with departmental honors in psychology will possess:

- An advanced understanding and application of descriptive and inferential statistics and use of statistical software in data analysis.
- A broad knowledge of psychology's historical foundation.
- The ability to conduct a critical review and analysis of existing psychological literature.
- The ability to design and execute empirical research that tests clearly stated hypotheses or addresses clearly articulated research questions.
- A clear understanding of research ethics and the responsible conduct of research in the field of psychology.
- The ability to communicate effectively in writing, in poster format, and in oral presentations, including mastery of APA style.
- The ability to draw conclusions from research findings, including recognition of the limitations, applications, and implications of the data, and a discussion of alternative explanations of the results.

Program Student Learning Outcomes

Students graduating with a Bachelor of Science in Psychology will be able to:

- Possess a broad knowledge of contemporary psychology.
- Have experience conducting psychological research.
- Be able to demonstrate skills in research design and data analysis.
- Be prepared for advanced study in psychology and related disciplines.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
BIOL A102	Introductory Biology	3
MATH A105	Intermediate Algebra	4
PSY A111	Introduction to Psychology	3
WRTG A111	Writing Across Contexts	3
Elective		2
	Credits	**15**
Spring		
BIOL A111 & A111L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Lab	4
MATH A121	Applied College Algebra	3
PSY A150	Lifespan Development	3
WRTG A213	Writing and the Sciences	3
GER Oral Communication Skills		3
	Credits	**16**

Second Year		
Fall		
BIOL A112 & A112L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Lab	4
PSY A200	Introduction to Behavior Analysis	3
PSY A260	Statistics for Psychology	3
PSY A260L	Statistics for Psychology Lab	1
PSY A345	Psychopathology	3
	Credits	**14**
Spring		
PSY A261 & A261L	Research Methods in Psychology and Research Methods in Psychology Laboratory	4
PSY A375	Social Psychology	3
GER Alaska Native-Themed		3
GER Fine Arts		3
GER Humanities		3
	Credits	**16**
Third Year		
Fall		
PSY A370	Behavioral Neuroscience	3
PSY A468 & A468L	Learning and Behavior and Learning and Behavior Laboratory	4
STAT A200	Elementary Statistics	3
GER Humanities		3
Program Elective: Experimental and Scientific Foundations		3
	Credits	**16**
Spring		
GER Intercultural Fluency		3
Elective		3
Program Elective: Experimental and Scientific Foundations		3
Upper Division Program Elective		3
Upper Division Program Elective		3
	Credits	**15**
Fourth Year		
Fall		
PSY A412 or PSY A428 or PSY A490 or PSY A495B or PSY A499	History of Psychology or Evolutionary Psychology or Advanced Topics in Psychology or Applied Clinical Skills Practicum or Senior Thesis	1-3
Elective		3
Upper Division Elective		3
Upper Division Elective		3
Upper Division Program Elective		3
	Credits	**13-15**
Spring		
Elective		3
Elective		3
Upper Division Elective		3
Upper Division Elective		3
Upper Division Elective		2
	Credits	**14**
	Total Credits	**119-121**

Minor in Psychology

Students majoring in another subject who wish to minor in psychology must complete the following requirements:

Code	Title	Credits
PSY A111	Introduction to Psychology	3
Complete at least nine credits from the following:		9-10
PSY A150	Lifespan Development	
PSY A260	Statistics for Psychology	
PSY A260L	Statistics for Psychology Lab	
PSY A261 & A261L	Research Methods in Psychology and Research Methods in Psychology Laboratory	
PSY A345	Psychopathology	
PSY A370	Behavioral Neuroscience	
PSY A375	Social Psychology	
PSY A468 & A468L	Learning and Behavior and Learning and Behavior Laboratory	
Complete six additional credits with a PSY prefix		6
Total		**18-19**

A minimum of 18 credits is required for the minor, 6 of which must be upper-division

Minor in Sociology

The Minor in Sociology provides students with a fundamental understanding of social institutions, human relationships, and the forces that shape our daily lives. The course of study complements degrees in disciplines across the university by encouraging students to apply sociological concepts to see beyond the individual experiences to discover the broader patterns that shape our society and public policy. Drawing from coursework in multiple disciplines, the minor builds an interdisciplinary perspective of social factors that influence human experience and interaction.

Students majoring in another subject who wish to minor in sociology must complete the following requirements:

Code	Title	Credits
Core Sociology Courses		
Complete the following two courses:		
SOC A101	Introduction to Sociology	3
SOC A201	Social Problems and Solutions	3
Methodological Perspectives Course		

Complete at least one of the following courses:		3
ANTH/SOC A430	Social Science Research Methods	
SOC/GEOG A307	Demography	
Advanced Sociology Course		
Complete at least one of the following courses:		3
SOC A309	Urban Sociology	
SOC/PS A351	Political Sociology	
SOC A380	Sociology of Globalization	
SOC A404	Environmental Sociology	
SOC A490	Special Topics in Sociology	
Complementary Social Science Perspective Courses		
Complete at least one of the following lower-division courses:		3
ANTH A200	Alaska Native Cultures	
ANTH A202	Cultural Anthropology	
GEOG/INTL A101	Local Places/Global Regions: An Introduction to Geography	
HS A220	Introduction to Population Health Sciences	
HS A230	Introduction to Global Health	
JPC A104	Media Literacy	
PS A102	Introduction to Political Science	
WSGS A200	Introduction to Women's and Gender Studies	
WSGS A201	Introduction to Gender and Sexuality Studies	
Complete at least one of the following upper-division courses:		3
ANTH A390C	Comparative Culture Studies	
ANTH/AKNS A461	Decolonizing Methodologies	
GEOG A470	Environmental Policy and Regulation in Alaska	
HS A370	Social and Cultural Determinants of Health	
JPC A362	Principles of Strategic Communications	
PS A312	Arctic and Northern Politics	
Total		**18**

A total of 18 credits is required for the minor.

Minor in Women's and Gender Studies

Students majoring in another subject who wish to minor in women's studies must complete the following requirements. Other courses may apply to the minor with approval of the Department of Women's Studies chair.

Code	Title	Credits
WSGS A200	Introduction to Women's and Gender Studies	3
WSGS A400	Feminist and Gender Theories	3
WSGS A401	Seminar in Women's and Gender Studies	3
Pre-Approved Electives [2]		
Complete 9 credits of the following:		9
ENGL A490E	Selected Topics in Women's Literature	
PSY A313	Psychology of Sex and Gender	
SOC A342	Marriages and Families	
SOC A377	Sociology of Gender	
WSGS/PS A355	Women and Gender in Politics	
WSGS A401	Seminar in Women's and Gender Studies [1]	
Total		**18**

[1] *WSGS A401 may be taken a second time with a change of subtitle as an elective.*

[2] *Students must select electives from at least two different disciplines (as defined by prefix). At least one elective must be upper-division (300-level or higher). Relevant courses not listed as approved electives may apply with the approval of women's studies chair.*

A total of 18 credits is required for the minor, of which 9 must be upper-division.

College of Business and Public Policy

College of Business and Public Policy (https://business.uaa.alaska.edu/academics/)

Department of Accounting and Finance (https://business.uaa.alaska.edu/departments/accounting-finance/)
Edward & Cathryn Rasmuson Hall (RH), Room 203
(907) 786-4100

Department of Economics and Public Policy (https://business.uaa.alaska.edu/departments/economics-public-policy/)
Edward & Cathryn Rasmuson Hall (RH), Room 203
(907) 786-4100

Department of Management, Marketing, Logistics, and Business Analytics (https://business.uaa.alaska.edu/departments/mmlba/programs/index.cshtml/)
Edward & Cathryn Rasmuson Hall (RH), Room 203
(907) 786-4100

CBPP Bachelor of Business Administration Requirements

- Complete the following courses with a minimum grade of C:

Code	Title	Credits
BBA Lower-Division Core		
ACCT A201	Principles of Financial Accounting	3-6

or ACCT A101 & ACCT A102	Principles of Financial Accounting I and Principles of Financial Accounting II	
ACCT A202	Principles of Managerial Accounting	3
BA A241	Business Law I	3
BA A280	Managerial Communications	3
BADA A110	Computer Concepts in Business	3
ECON A101	Principles of Microeconomics	3
ECON A102	Principles of Macroeconomics	3
ECON A227	Introductory Statistics for Economics and Business	3
MATH A121	Applied College Algebra	3-4
or MATH A151	College Algebra for Calculus	
MATH A221	Applied Calculus for Managerial and Social Sciences	3-6
or MATH A251	Calculus I	
or MATH A251F	F.A.T. Calculus I	
WRTG A212	Writing and the Professions	3
Upper-Division Core		
ACCT A316	Accounting Information Systems [1]	3
or BA A376	Management Information Systems	
BA A300	Organizational Theory and Behavior	3
BA A325	Corporate Finance	3
BA A343	Principles of Marketing	3
BA A375	Statistics for Business and Economics [2]	3
or BADA A470	Business Analytics, Data Science, and Machine Learning	
or ECON A312	Econometrics for Business and Economics	
or ECON A329	Economic and Business Forecasting	
Total		**48-55**

[1] *Accounting majors must take ACCT A316. All other majors must take BA A376.*

[2] *Accounting and Finance majors must choose from: BA A375, ECON A312, or ECON A329. Economics majors must take ECON A312. Global Logistics, Management, and Marketing majors must choose from: BA A375, BADA A470, ECON A312 or ECON A329. Business and Data Analytics majors must choose BADA A470.*

Please contact the CBPP student advising center at SAC@alaska.edu or 907-786-4100 for assistance.

Associate of Applied Science in Accounting

The Associate of Applied Science (AAS) in Accounting emphasizes understanding the accounting cycle, processes and procedures, as well as generally accepted accounting principles. The AAS in Accounting prepares students for entry-level accounting positions such as bookkeeper, accounts receivable, accounts payable, payroll clerk, assistant to line and staff accountants, or as paraprofessionals in Certified Public Accountant (CPA) firms.

To provide maximum transferability to a Bachelor of Business Administration, it is recommended that students meet with an advisor to selectively choose courses.

Admission Requirements

- Complete the Admission Requirements for Associate Degrees. (p. 46)

Graduation Requirements

- Complete the General University Requirements for Associate Degrees (p. 441).
- Complete the General Education Requirements for Associate of Applied Science Degrees (p. 441).
  - For the Quantitative Skills requirement choose MATH A105 or higher, except MATH A113 and MATH A115.
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
Core Courses		
ACCT A101	Principles of Financial Accounting I	3
ACCT A102	Principles of Financial Accounting II	3
ACCT A202	Principles of Managerial Accounting	3
ACCT A210	Income Tax Preparation	3
ACCT A222	Introduction to Computerized Accounting	3
ACCT A225	Payroll Accounting	3
ACCT A230	Workpaper Preparation and Presentation	3
BA A151	Business Foundations	3
BA A241	Business Law I	3
BADA A110	Computer Concepts in Business	3
ECON A102	Principles of Macroeconomics	3
MATH A105	Intermediate Algebra [1]	4
Electives		
Complete 12 credits of electives. Students may choose any course at the 100-level or above in ACCT, BA, BADA, CIOS, ECON, LGOP, HA or LOG but may not choose more than 6 credits from one discipline and may not use ACCT A120.		12
Total		**49**

[1] *Any higher-level MATH course, except MATH A113 and MATH A115, with a minimum grade of C will satisfy the MATH A105 requirement.*

A minimum of 60 credits is required for the degree.

Honors in Accounting

The Associate of Applied Science in Accounting recognizes distinguished achievement by conferring programmatic honors in accounting. In order to receive honors in accounting, a student must meet the following requirements:

- Meet the requirements for the Associate of Applied Science in Accounting;
- Earn a minimum cumulative UAA GPA of 3.75;
- Meet requirements for graduation with honors as published in the UAA catalog;
- Notify the program director or program chair, in writing, of the intent to graduate with honors at the time of or before submittal of an Application for Graduation.

Program Student Learning Outcomes

Students graduating with an Associate of Applied Science in Accounting will be able to:

- Demonstrate the ability to provide written documentation summarizing accounting information in an organized manner.
- Demonstrate the ability to apply the fundamental accounting equation in the analysis and recording of business transactions and understand the concepts underlying the preparation of financial statements.
- Demonstrate the ability to use special journals and subsidiary ledgers in the analysis and recording of business transactions.
- Demonstrate an understanding of state and federal payroll tax laws and properly calculate, record, and report payroll transactions for an organization.
- Demonstrate an understanding of fundamental income tax laws and prepare an individual income tax return.
- Demonstrate competency in using computer technology in the accounting processing cycle.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
ACCT A101	Principles of Financial Accounting I	3
BA A151	Business Foundations	3
BADA A110	Computer Concepts in Business	3
MATH A105 or MATH A121 or MATH A151	Intermediate Algebra or Applied College Algebra or College Algebra for Calculus	3-4
WRTG A111	Writing Across Contexts	3
	Credits	**15-16**
Spring		
ACCT A102	Principles of Financial Accounting II	3
ECON A102	Principles of Macroeconomics	3
GER Oral Communication Skills		3
GER Written Communication Skills		3
Elective		3
	Credits	**15**
Second Year		
Fall		
ACCT A202	Principles of Managerial Accounting	3
ACCT A210	Income Tax Preparation	3
ACCT A222	Introduction to Computerized Accounting	3
Program Elective (ACCT, BA, BADA, CIOS, ECON, LGOP, or LOG)		3
Program Elective (ACCT, BA, BADA, CIOS, ECON, LGOP, or LOG)		3
	Credits	**15**
Spring		
ACCT A225	Payroll Accounting	3

ACCT A230	Workpaper Preparation and Presentation	3
BA A241	Business Law I	3
Program Elective (ACCT, BA, BADA, CIOS, ECON, LGOP, or LOG)		3
Program Elective (ACCT, BA, BADA, CIOS, ECON, LGOP, or LOG)		3
	Credits	**15**
	Total Credits	**60-61**

Bachelor of Business Administration in Accounting

The Bachelor of Business Administration (BBA) in Accounting gives students a broad-based business background and provides a solid foundation for careers in public accounting, private accounting, and accounting for government or non-profit organizations. The program also provides a foundation for graduates to pursue additional professional certification, particularly the Certified Public Accountant (CPA) certification.

The BBA in Accounting is accredited by the Association to Advance Collegiate Schools of Business (AACSB International).

Admission Requirements

- Complete the Admission Requirements for Baccalaureate Degrees (p. 46).

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (p. 442).
- Complete the General Education Requirements for Baccalaureate Degrees (p. 443).
  - For 3 credits of Tier 1 Quantitative Skills, choose MATH A121 or MATH A151.
  - For 3 credits of Tier 1 Written Communication Skills, choose WRTG A212.
  - For 3 credits of Tier 1 Oral Communication Skills, choose COMM A111 or COMM A241.
  - For 6 credits of Tier 2 Social Sciences, choose ECON A101 and ECON A102.
- Complete the CBPP Bachelor of Business Administration Requirements. (p.)
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
ACCT A301	Intermediate Accounting I [1]	3
ACCT A302	Intermediate Accounting II [1]	3
ACCT A342	Managerial Cost Accounting	3
ACCT A409	Individual Income Tax	3
or ACCT A410	Corporate and Partnership Income Tax	
ACCT A452	Auditing	3
BA A151	Business Foundations	3
BA A377	Operations Management	3
3 credits of 200-level or above ACCT course		3
3 credits of 200-level or above in ACCT, BA, BADA, ECON, HA, or LOG		3
Complete 9 credits from the following upper-division accounting electives:		9
ACCT A320	Fundamentals of Accounting Data Analytics	
ACCT A401	Advanced Accounting	
ACCT A409	Individual Income Tax [2]	
ACCT A410	Corporate and Partnership Income Tax [2]	
ACCT A420	Fraud Examination	
ACCT A422	Justice for Fraud Victims	
ACCT A430	Governmental and Not-for-Profit Accounting	
Total		**36**

[1] *ACCT A301 and ACCT A302 must be completed at the University of Alaska Anchorage or another AACSB-accredited institution.*

[2] *This course may not be used to fulfill both a core course requirement and an elective requirement.*

A minimum of 120 credits is required for the degree, of which 39 credits must be upper-division.

Honors in Accounting

The Bachelor of Business Administration (BBA) in Accounting recognizes distinguished achievement by conferring programmatic honors in accounting. In order to receive honors in accounting, a student must meet the following requirements:

- Declare BBA in Accounting as their major;
- Meet the requirements for the BBA in Accounting;
- Earn a minimum cumulative UAA GPA of 3.75;
- Meet requirements for graduation with honors as published in the UAA catalog.

Program Student Learning Outcomes

Students graduating with a Bachelor of Business Administration in Accounting will be able to have:

- A baccalaureate content knowledge of their major discipline;
- Knowledge of business environments;
- Analytical skills;
- Professional communication skills.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors

and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

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- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year

Fall		**Credits**
BA A151	Business Foundations	3
COMM A111 or COMM A241	Fundamentals of Oral Communication or Public Speaking	3
WRTG A111	Writing Across Contexts	3
GER Humanities		3
GER Natural Sciences		3
	Credits	**15**
Spring		
BADA A110	Computer Concepts in Business	3
MATH A121 or MATH A151	Applied College Algebra or College Algebra for Calculus	3-4
WRTG A212	Writing and the Professions	3
GER Fine Arts		3
GER Natural Sciences w/ Lab		4
	Credits	**16-17**

Second Year

Fall		
ACCT A201	Principles of Financial Accounting	3
BA A241	Business Law I	3
BA A280	Managerial Communications	3
ECON A101	Principles of Microeconomics	3
MATH A221 or MATH A251 or MATH A251F	Applied Calculus for Managerial and Social Sciences or Calculus I or F.A.T. Calculus I	3-6
	Credits	**15-18**
Spring		
ACCT A202	Principles of Managerial Accounting	3
ECON A102	Principles of Macroeconomics	3
ECON A227	Introductory Statistics for Economics and Business	3
GER Humanities		3
Program Elective (200-level or above in ACCT, BA, BADA, ECON OR LOG)		3
	Credits	**15**

Third Year

Fall		
ACCT A301	Intermediate Accounting I	3
ACCT A342	Managerial Cost Accounting	3
BA A300	Organizational Theory and Behavior	3
BA A343	Principles of Marketing	3
GER Alaska Native-Themed or Elective		3
	Credits	**15**
Spring		
ACCT A302	Intermediate Accounting II	3
ACCT A316	Accounting Information Systems	3
BA A325	Corporate Finance	3
BA A375 or ECON A312 or ECON A329	Statistics for Business and Economics or Econometrics for Business and Economics or Economic and Business Forecasting	3
GER Intercultural Fluency or Elective		3
	Credits	**15**

Fourth Year

Fall		
ACCT A409 or ACCT A410	Individual Income Tax or Corporate and Partnership Income Tax	3
BA A377	Operations Management	3
Elective		3
Program Elective (ACCT, 200-level or above)		3
Program Elective (ACCT, upper division)		3
	Credits	**15**

Spring		
ACCT A452	Auditing	3
Elective		3
Elective		3
Program Elective (ACCT, upper division)		3
Program Elective (ACCT, upper division)		3
	Credits	**15**
	Total Credits	**121-125**

Minor in Accounting

The Accounting minor is designed for non-accounting majors. It provides a solid foundation beyond the principles of accounting and enhances students' major degree programs with a higher level of knowledge and expertise in accounting.

Students who wish to minor in accounting must complete the following requirements with a minimum grade of C. This minor is not available to Bachelor of Business Administration in Accounting majors.

Code	Title	Credits
ACCT A201	Principles of Financial Accounting	3-6
or ACCT A101 & ACCT A102	Principles of Financial Accounting I and Principles of Financial Accounting II	
ACCT A202	Principles of Managerial Accounting	3
ACCT A301	Intermediate Accounting I [1]	3
ACCT A302	Intermediate Accounting II [1]	3
Upper-division ACCT electives		6
Total		**18-21**

[1] *ACCT A301 and ACCT A302 must be completed at UAA or another AACSB-accredited institution.*

A minimum of 18 credits is required for the minor.

Minor in Alaska Native Business Management

The Minor in Alaska Native Business Management prepares students for a unique segment of business in Alaska. Alaska Native corporations are an economic force in the state of Alaska, and there is a need for business professionals educated in the culture and management practices of these organizations. This minor is for Alaska Native and non-Native students alike who plan to live and work in Alaska.

Students who wish to minor in Alaska Native Business Management must complete the following requirements with a minimum grade of C. Students pursuing a baccalaureate degree outside the College of Business and Public Policy (p. 540) (CBPP) should contact the CBPP Student Advising Center (http://www.uaa.alaska.edu/cbpp/studentadvisingcenter/).

Code	Title	Credits
AKNS A201	Alaska Native Perspectives	3
BA A151	Business Foundations	3
BA A202	Alaska Native Organizations	3
BA A401	Alaska Native Corporation Business Management	3
BA A402	Alaska Native Corporation Leadership	3
Alaska Native Studies (AKNS) electives		3
Total		**18**

A minimum of 18 credits is required for the minor.

Occupational Endorsement Certificate in Alaska Native Business Management

The Occupational Endorsement Certificate (OEC) in Alaska Native Business Management (ANBM) prepares students for the unique business landscape in Alaska. The certificate provides students with the history, culture, and management practices of the Alaska Native corporation, their subsidiaries and non-profits and the Alaska Native Claims Settlement Act of 1971, an Act that launched the largest land reclamation of Indigenous people in the entire nation.

Admission Requirements

- Complete the Admission Requirements for Occupational Endorsement Certificate (p. 46)s (p. 46).

Graduation Requirements

- Complete the General University Requirements for Occupational Endorsement Certificates (p. 440).
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
AKNS A201	Alaska Native Perspectives	3
BA A202	Alaska Native Organizations	3
BA A401	Alaska Native Corporation Business Management	3
BA A402	Alaska Native Corporation Leadership	3
Alaska Native Studies (AKNS) course		3
Total		**15**

A minimum of 15 credits is required for the certificate.

Program Student Learning Outcomes

Students graduating with an Occupational Endorsement Certificate in Alaska Native Business Management will be able to:

- Demonstrate knowledge of and proficiency in defining the objectives of the Alaska Native Claims Settlement Act and the businesses formed or impacted by this historic legislation.
- Navigate effectively within the Alaska Native corporate world while utilizing the appropriate terminology and sensitivity in describing the history, culture and impact of these organizations.
- Describe the Alaska Native corporate landscape in all its complexity.
- Effectively use the managerial functions of leading, planning, organizing and communicating in the Alaska Native corporate world.

Occupational Endorsement Certificate in Bookkeeping

The Occupational Endorsement Certificate (OEC) in Bookkeeping prepares students to record and analyze accounting transactions. Students will gain a fundamental understanding of current and long-term assets and current and long-term liabilities. In addition, students will gain experience with a computerized accounting program.

Admission Requirements

- Complete the Admission Requirements for Occupational Endorsement Certificates (p. 46).

Graduation Requirements

- Complete the General University Requirements for Occupational Endorsement Certificates (p. 440).
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
ACCT A101	Principles of Financial Accounting I	3
ACCT A102	Principles of Financial Accounting II	3
ACCT A222	Introduction to Computerized Accounting	3
BA A151	Business Foundations	3
BADA A110	Computer Concepts in Business	3
Total		**15**

A minimum of 15 credits is required for this certificate.

Program Student Learning Outcomes

Students graduating with an Occupational Endorsement Certificate in Bookkeeping will be able to:

1. Demonstrate the ability to apply the fundamental accounting equation in the analysis and recording of business transactions and understand the concepts underlying the preparation of financial statements.
2. Demonstrate the ability to use special journals and subsidiary ledgers in the analysis and recording of business transactions.
3. Demonstrate competency in using computer technology in the accounting processing cycle.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
ACCT A101	Principles of Financial Accounting I	3
BADA A110	Computer Concepts in Business	3
	Credits	**6**
Spring		
ACCT A102	Principles of Financial Accounting II	3
BA A151	Business Foundations	3
	Credits	**6**

Second Year		
Fall		
ACCT A222	Introduction to Computerized Accounting	3
	Credits	**3**
	Total Credits	**15**

Minor in Business Administration

The Business Administration Minor is a valuable way to learn various aspects of business. It offers a collection of courses that introduces students to many business areas that include: finance, accounting, economics, and a choice of electives in business courses that are aligned with the student's interests.

Students majoring in another subject who wish to minor in business administration must complete the following requirements.[1] Prerequisites for the following courses must also be satisfied.

Code	Title	Credits
ACCT A201	Principles of Financial Accounting	3
ACCT A202	Principles of Managerial Accounting	3
ECON A101	Principles of Microeconomics	3
ECON A102	Principles of Macroeconomics	3
Upper-division business electives		9
Total		**21**

[1] *Not available to Bachelor of Business Administration majors.*

A total of 21 credits is required for the minor.

Occupational Endorsement Certificate in Business Analytics

The Occupational Endorsement Certificate in Business Analytics helps students to acquire skills to meet workforce needs by preparing them for a high-demand job area in Business Analytics that cuts across multiple areas: healthcare, finance, marketing, management, global supply chain management, and logistics to name a few.

Admission Requirements

- Complete the Admission Requirements for Occupational Endorsement Certificates (p. 46).

Graduation Requirements

- Complete the General University Requirements for Occupational Endorsement Certificates. (p. 440)
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
BADA A110	Computer Concepts in Business	3
BADA A210	Introduction to Programming for Business Analytics	3
ECON A227	Introductory Statistics for Economics and Business	3
MATH A121	Applied College Algebra [1]	3-4
or MATH A151	College Algebra for Calculus	
Choose two courses from the list below:		**6**
BADA A330	Database Systems	
BADA A470	Business Analytics, Data Science, and Machine Learning	
BADA A490	Advanced Topics in Management Information Systems [2]	
Total		**18-19**

[1] *Some of these courses have prerequisites or require a placement exam prior to registration. Please see an advisor for assistance.*

[2] *Approved course titles include* ***Data Visualization using one or more of the major software/tools such as Python, Tableau, R, Spotfire, and Power BI.*** *All other course titles must be approved by the student's academic advisor.*

A minimum of 18 credits is required for this certificate.

Program Student Learning Outcomes

Students graduating with the Occupational Endorsement Certificate in Business Analytics will be able to:

- Complete a comprehensive, hands-on project utilizing spreadsheet, database, word processing, and presentation software.
- Define and describe current technologies and their applications to business.
- Use appropriate analytical techniques to identify, evaluate, and select logical solutions that meet the strategic goals of the organization.
- Demonstrate knowledge of and proficiency in the use of current information technologies for analyzing data of importance to business.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear

as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.

- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
BADA A110	Computer Concepts in Business	3
MATH A121 or MATH A151	Applied College Algebra or College Algebra for Calculus	3-4
	Credits	**6-7**
Spring		
BADA A210	Introduction to Programming for Business Analytics	3
ECON A227	Introductory Statistics for Economics and Business	3
	Credits	**6**
Second Year		
Fall		
Program Elective		3
Program Elective		3
	Credits	**6**
	Total Credits	**18-19**

Bachelor of Business Administration in Business and Data Analytics

The Bachelor of Business Administration (BBA) in Business and Data Analytics is a STEM-designated program that provides students with the knowledge and skills for careers in the fields of data science, business analytics, and data analytics. The program equips students with the technical and analytical skills necessary to make informed decisions in a variety of industries.

The BBA in Business and Data Analytics is accredited by the Association to Advance Collegiate Schools of Business (AACSB International).

Admission Requirements

- Complete the Admission Requirements for Baccalaureate Degrees (p. 46).

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (p. 442).
- Complete the General Education Requirements for Baccalaureate Degrees (p. 443).
  - For 3 credits of Tier 1 Quantitative Skills, choose MATH A121 or MATH A151.
  - For 3 credits of Tier 1 Written Communication Skills, choose WRTG A212.
  - For 3 credits of Tier 1 Oral Communication Skills, choose COMM A111 or COMM A241.
  - For 6 credits of Tier 2 Social Sciences, choose ECON A101 and ECON A102.
- Complete the CBPP Bachelor of Business Administration Requirements (p. 540).
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
BADA A210	Introduction to Programming for Business Analytics	3
BADA A310	Systems Analysis and Design	3
BADA A330	Database Systems	3
BADA A370	Data Mining and Machine Learning	3
BADA A412	Ethics and Privacy Issues in AI, Big Data and Business Analytics	3
BADA A487	Business Analytics Senior Project [1]	3
Complete 15 credits of the following upper-division program electives: [2]		15
BA A375	Statistics for Business and Economics	
BA A608	Artificial Intelligence with Business Applications	
BADA A390	Selected Topics in Management Information Systems	
BADA A490	Advanced Topics in Management Information Systems	
BADA A495	Systems Analyst/User Support Internship	
BADA A498	Individual Research Project	
ECON A312	Econometrics for Business and Economics	

ECON A329	Economic and Business Forecasting	
Advisor approved elective		
Total		**33**

[1] *BADA A487 and 9 credits of major requirements must be completed at the University of Alaska Anchorage.*

[2] *Other upper-division electives may be approved by the department.*

A minimum of 120 credits is required for the degree, of which 39 credits must be upper-division.

Honors in Business and Data Analytics

The Bachelor of Business Administration in Business and Data Analytics recognizes distinguished achievement by conferring programmatic honors in business and data analytics. In order to receive honors in business and data analytics, a student must meet the following requirements:

- Declare BBA in Business and Data Analytics as their major;
- Meet the requirements for the BBA in Business and Data Analytics;
- Earn a minimum cumulative UAA GPA of 3.50;
- Meet the requirements for graduation with honors as published in the UAA catalog.

Program Student Learning Outcomes

Students graduating with a Bachelor of Business Administration in Business and Data Analytics will be able to have:

- A baccalaureate content knowledge of their major discipline;
- Knowledge of business environments;
- Analytical skills;
- Professional communication skills.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

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- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
BA A151	Business Foundations	3
COMM A111 or COMM A241	Fundamentals of Oral Communication or Public Speaking	3
MATH A121 or MATH A151	Applied College Algebra or College Algebra for Calculus	3-4
WRTG A111	Writing Across Contexts	3
GER Fine Arts		3
	Credits	**15-16**
Spring		
BADA A110	Computer Concepts in Business	3
MATH A221 or MATH A251 or MATH A251F	Applied Calculus for Managerial and Social Sciences or Calculus I or F.A.T. Calculus I	3-6
WRTG A212	Writing and the Professions	3
GER Humanites		3
GER Natural Sciences		3
GER Natural Sciences Lab		1
	Credits	**16-19**
Second Year		
Fall		
ACCT A201	Principles of Financial Accounting	3
BA A241	Business Law I	3
BA A280	Managerial Communications	3
BADA A210	Introduction to Programming for Business Analytics	3
ECON A101	Principles of Microeconomics	3
	Credits	**15**

Spring		
ACCT A202	Principles of Managerial Accounting	3
BADA A330	Database Systems	3
ECON A102	Principles of Macroeconomics	3
ECON A227	Introductory Statistics for Economics and Business	3
GER Natural Sciences		3
	Credits	**15**
Third Year		
Fall		
BA A300	Organizational Theory and Behavior	3
BA A325	Corporate Finance	3
BADA A310	Systems Analysis and Design	3
BADA A470	Business Analytics, Data Science, and Machine Learning	3
GER Alaska Native-Themed or Elective		3
	Credits	**15**
Spring		
BA A343	Principles of Marketing	3
BA A376	Management Information Systems	3
GER Humanities		3
GER Intercultural Fluency or Elective		3
Elective		3
	Credits	**15**
Fourth Year		
Fall		
BADA A370	Data Mining and Machine Learning	3
BADA A412	Ethics and Privacy Issues in AI, Big Data and Business Analytics	3
Elective		3
Upper Division Program Elective (BADA or ECON or BA)		3
Upper Division Program Elective (BADA or ECON or BA)		3
	Credits	**15**
Spring		
BADA A487	Business Analytics Senior Project	3
Elective		3
Upper Division Program Elective (BADA or ECON or BA)		3
Upper Division Program Elective (BADA or ECON or BA)		3
Upper Division Program Elective (BADA or ECON or BA)		3
	Credits	**15**
	Total Credits	**121-125**

Associate of Applied Science in Business Computer Information Systems

Admission to this program is currently suspended. Contact the College of Business and Public Policy for more information.

Occupational Endorsement Certificate in Business Leadership

The Occupational Endorsement Certificate in Business Leadership prepares students for entry-level leadership roles in supervisor and management positions. The program focus on students developing skills to effectively manage and supervise individuals to achieve organizational objectives. In addition, students will learn Microsoft Office to augment their leadership and communication competencies.

Admission Requirements

- Complete the Admission Requirements for Occupational Endorsement Certificates (p. 46).

Graduation Requirements

- Complete the General University Requirements for Occupational Endorsement Certificates (p. 440).
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
BA A151	Business Foundations	3
BA A231	Fundamentals of Supervision	3
BA A264	Personal Selling	3
BADA A110	Computer Concepts in Business [2]	3
COMM A111	Fundamentals of Oral Communication [2]	3
or COMM A241	Public Speaking	
UNIV A190	Selected Topics in University Studies [1]	1
Total		**16**

[1] *Approved course titles include Success in Online Activities, Strategies for Success in College, and Community Leadership. All other course titles must be approved by the student's academic advisor.*

[2] *Some of these courses have prerequisites or require a placement exam prior to registration. Please see an advisor for assistance.*

A minimum of 16 credits is required for this certificate.

Program Student Learning Outcomes

Students graduating with the Occupational Endorsement Certificate in Business Leadership will be able to:

- Describe the process of achieving organizational objectives through people and other resources.
- Communicate effectively in a variety of contexts and formats.
- Use prominent operating system software to create, save, move, copy, delete, and rename folders and files.
- Effectively use the managerial functions of planning, organizing, leading, and controlling.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
BA A151	Business Foundations	3
COMM A111 or COMM A241	Fundamentals of Oral Communication or Public Speaking	3
	Credits	**6**
Spring		
BADA A110	Computer Concepts in Business	3
UNIV A190	Selected Topics in University Studies	1
	Credits	**4**
Second Year		
Fall		
BA A231	Fundamentals of Supervision	3
BA A264	Personal Selling	3
	Credits	**6**
	Total Credits	**16**

Minor in Computer Information Systems

The Computer Information Systems (CIS) Minor is an excellent way for students to acquire knowledge and skills to meet workforce needs by preparing them for high-demand jobs in areas such as business analytics or cybersecurity. This minor offers three different tracks affording students the ability to customize the minor to best fit their career goals. The tracks are in the following areas: business analytics, cybersecurity, and a general area for an overview of the CIS field.

This minor is not available to students majoring in a Bachelor of Business Administration (BBA) in Management Information Systems.

Students who wish to minor in CIS must complete requirements in one of the following three tracks.

Business Analytics Track

Code	Title	Credits
BA A375	Statistics for Business and Economics	3
or ECON A312	Econometrics for Business and Economics	
BADA A110	Computer Concepts in Business	3
BADA A210	Introduction to Programming for Business Analytics	3
BADA A330	Database Systems	3
BADA A470	Business Analytics, Data Science, and Machine Learning	3
Complete one upper-division course from the following:		3
ACCT A316	Accounting Information Systems	
BA A452	Financial Derivatives	
BA A480	Marketing Media Analytics	
BADA A310	Systems Analysis and Design	
BADA A361	Advanced Contemporary Business Applications Development	
ECON A329	Economic and Business Forecasting	
Total		**18**

Cybersecurity Track

Code	Title	Credits
BADA A110	Computer Concepts in Business	3
BADA A210	Introduction to Programming for Business Analytics	3
BADA A330	Database Systems	3
BADA A345	Managing Data Communications and Computer Networks	3

Complete two advisor-approved BADA electives related to Cybersecurity	6
Total	**18**

General Track

Code	Title	Credits
BADA A110	Computer Concepts in Business	3
BADA A210	Introduction to Programming for Business Analytics	3
BADA A310	Systems Analysis and Design	3
BADA A330	Database Systems	3
Complete two upper-division courses from the following:		6
BADA A345	Managing Data Communications and Computer Networks	
BADA A350	Advanced Web Page Development for Business Applications	
BADA A361	Advanced Contemporary Business Applications Development	
BADA A390	Selected Topics in Management Information Systems	
BADA A395	Programmer/Analyst Internship	
BADA A445	Advanced Network Management	
BADA A470	Business Analytics, Data Science, and Machine Learning	
BADA A490	Advanced Topics in Management Information Systems	
BADA A495	Systems Analyst/User Support Internship	
BADA A498	Individual Research Project	
ECON A312	Econometrics for Business and Economics	
ECON A329	Economic and Business Forecasting	
Total		**18**

A total of 18 credits is required for the minor, 12 of which must be upper-division.

Bachelor of Arts in Economics

The Bachelor of the Arts (BA) in Economics prepares students for a variety of careers and for graduate studies in multiple disciplines; students develop essential skills in problem-solving, critical thinking, and data analytics. We offer electives, such as behavioral economics, resource & energy economics, public policy, pandemic economics, economic development, experimental economics, health, and economic history. The BA in Economics is selected by many students pursuing a double major.

The Bachelor of Arts (BA) in Economics is accredited by the Association to Advance Collegiate Schools of Business (AACSB International).

Admission Requirements

- Complete the Admission Requirements for Baccalaureate D (p. 46)egrees (p. 46).

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (p. 442).
- Complete the General Education Requirements for Baccalaureate Degrees (p. 443).
  - For 3 credits of Tier 1 Quantitative Skills, choose MATH A221 or MATH A251 or MATH A251F.
  - For 6 credits of Tier 2 Social Sciences, choose ECON A101 and ECON A102.
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
BADA A110	Computer Concepts in Business	3
ECON A101	Principles of Microeconomics	3
ECON A102	Principles of Macroeconomics	3
ECON A227	Introductory Statistics for Economics and Business	3
ECON A312	Econometrics for Business and Economics	3
ECON A321	Intermediate Microeconomics	3
ECON A324	Intermediate Macroeconomics	3
ECON A492	Seminar in Economic Research	3
MATH A221	Applied Calculus for Managerial and Social Sciences [1]	3-6
or MATH A251	Calculus I	
or MATH A251F	F.A.T. Calculus I	
3 credits of 100-level or above ECON elective		3
15 credits of upper-division ECON electives [2]		15
3 credits of 400-level ECON elective [3]		3
Total		**48-51**

1. *Math skills are important in the study of economics. For this reason, majors are to complete their math requirements early in their program. Students planning on graduate school are advised to take the entire calculus sequence (MATH A251 or MATH A251F, MATH A252 or MATH A252F, and MATH A253).*
2. *No more than a total of 6 credits earned in an independent study, or ECON A454, may be used to satisfy requirements for the major (6 credits of independent study or 3 credits of independent study and 3 credits of ECON A454).*
3. *ECON A454 cannot be counted towards the 400-level ECON requirement.*

A minimum of 120 credits is required for the degree, of which 39 credits must be upper-division.

Honors in Economics

The Bachelor of Arts (BA) in Economics recognizes distinguished achievement by conferring programmatic honors in economics. In order to receive honors in economics, a student must meet the following requirements:

- Meet requirements for BA in Economics;
- Maintain a minimum GPA of 3.50 in their major requirements;
- Complete ECON A492 with a grade of A, or complete a research paper with a grade of A which demonstrates independent economic research in a semester-length independent study course.

Students not meeting all these requirements may be awarded honors through a vote of the faculty.

Program Student Learning Outcomes

Students graduating with a Bachelor of Arts (BA) in Economics will be able to:

- Demonstrate the economic way of thinking and apply it to a wide variety of issues and problems.
- Use economic concepts and analytical skills to address economic problems.
- Demonstrate a basic descriptive knowledge of the U.S. and world economies.
- Understand the role of institutions, especially markets and government, in shaping economic outcomes.
- Obtain and analyze relevant economic data to test hypotheses against evidence.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
ECON A101	Principles of Microeconomics	3
MATH A121 or MATH A151	Applied College Algebra or College Algebra for Calculus	3-4
WRTG A111	Writing Across Contexts	3
GER Natural Sciences		3
GER Oral Communication Skills		3
	Credits	**15-16**
Spring		
BADA A110	Computer Concepts in Business	3
ECON A102	Principles of Macroeconomics	3
GER Natural Sciences w/ Lab		4
GER Written Communication Skills (200-level)		3
Elective		3
	Credits	**16**
Second Year		
Fall		
MATH A221 or MATH A251 or MATH A251F	Applied Calculus for Managerial and Social Sciences or Calculus I or F.A.T. Calculus I	3-6
GER Fine Arts		3
GER Humanities		3
GER Intercultural Fluency or Elective		3
Program Elective (ECON, 100-level)		3
	Credits	**15-18**
Spring		
ECON A227	Introductory Statistics for Economics and Business	3
GER Alaska Native-Themed or Elective		3
GER Humanities		3
Elective		3
Elective		3
	Credits	**15**

Third Year		
Fall		
ECON A312	Econometrics for Business and Economics	3
ECON A321	Intermediate Microeconomics	3
Upper Division Program Elective (ECON) [1]		3
Upper Division Elective		3
Elective		3
	Credits	**15**
Spring		
ECON A324	Intermediate Macroeconomics	3
Program Elective (ECON, 400-level) [2]		3
Upper Division Program Elective (ECON) [1]		3
Elective		3
Elective		3
	Credits	**15**
Fourth Year		
Fall		
Upper Division Program Elective (ECON) [1]		3
Upper Division Program Elective (ECON) [1]		3
Upper Division Elective		3
Upper Division Elective		3
Elective		3
	Credits	**15**
Spring		
ECON A492	Seminar in Economic Research	3
Upper Division Program Elective (ECON) [1]		3
Elective		3
Elective		3
Elective		0-2
	Credits	**12-14**
	Total Credits	**118-124**

[1] *No more than 6 credits earned in an independent study or ECON A454 may be used to satisfy requirements for the major (6 credits of independent study, or 3 credits of independent study and 3 credits of ECON A454).*

[2] *ECON A454 cannot be counted toward the 400-level ECON elective requirement.*

Bachelor of Business Administration in Economics

The Bachelor of Business Administration (BBA) in Economics provides students with the breadth of knowledge and skills across business-related disciplines that prepares them for careers in the public or private sector and non-profit organizations. The major emphasizes problem-solving, critical thinking, and data analytics; upper-division electives such as money and banking, macroeconomics, public finance, and econometrics address current issues and develop core competencies in business and economics.

The BBA in Economics is accredited by the Association to Advance Collegiate Schools of Business (AACSB International).

Admission Requirements

- Complete the Admission Requirements for Baccalaureate Degrees (p. 46).

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (p. 442).
- Complete the General Education Requirements for Baccalaureate Degrees (p. 443).
  - For 3 credits of Tier 1 Quantitative Skills, choose MATH A121 or MATH A151.
  - For 3 credits of Tier 1 Written Communication Skills, choose WRTG A212.
  - For 3 credits of Tier 1 Oral Communication Skills, choose COMM A111 or COMM A241.
  - For 6 credits of Tier 2 Social Science, choose ECON A101 and ECON A102.
- Complete the CBPP Bachelor of Business Administration Requirements. (p.)
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
ECON A321	Intermediate Microeconomics	3
ECON A324	Intermediate Macroeconomics	3
ECON A492	Seminar in Economic Research	3
3 credits of 100-level or above ECON elective		3
3 credits of 100-level or above business elective (ACCT, BA, BADA, ECON, HA, or LOG)		3
18 credits of upper-division ECON electives (may include BA A375 or BADA A470) [1]		18
3 credits of 400-level ECON elective [2]		3
Total		**36**

[1] *No more than a total of 6 credits of independent study or ECON A454 may be used to satisfy the major requirements (6 credits of independent study or 3 credits of independent study and 3 credits of ECON A454).*

[2] *ECON A454 cannot be counted towards the 400-level ECON requirement.*

A minimum of 120 credits is required for the degree, of which 45 must be upper-division.

Honors in Economics

The Bachelor of Business Administration in Economics recognizes distinguished achievement by conferring programmatic honors in

economics. In order to receive honors in economics, a student must meet the following requirements:

- Meet requirements for Bachelor of Business Administration in Economics;
- Maintain a minimum GPA of 3.50 in their major requirements;
- Complete ECON A492 with a grade of A, or complete a research paper with a grade of A which demonstrates independent economic research in a semester-length independent study course.

Students not meeting all these requirements may be awarded honors through a vote of the faculty.

Program Student Learning Outcomes

Students graduating with a BBA in Economics will be able to:

- Demonstrate baccalaureate content knowledge of their major discipline.
- Convey knowledge of business perspectives.
- Apply analytical techniques to solve business problems.
- Demonstrate professional communication skills.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
COMM A111 or COMM A241	Fundamentals of Oral Communication or Public Speaking	3
WRTG A111	Writing Across Contexts	3
GER Humanities		3
Program Elective (100-level or above in ECON)		3
Program Elective (100-level or above in ACCT, BA, BADA, ECON, HA, or LOG)		3
	Credits	**15**
Spring		
BADA A110	Computer Concepts in Business	3
MATH A121 or MATH A151	Applied College Algebra or College Algebra for Calculus	3-4
WRTG A212	Writing and the Professions	3
GER Humanities		3
GER Natural Sciences w/ Lab		4
	Credits	**16-17**
Second Year		
Fall		
ACCT A201	Principles of Financial Accounting	3
BA A241	Business Law I	3
BA A280	Managerial Communications	3
ECON A101	Principles of Microeconomics	3
MATH A221 or MATH A251 or MATH A251F	Applied Calculus for Managerial and Social Sciences or Calculus I or F.A.T. Calculus I	3-6
	Credits	**15-18**
Spring		
ACCT A202	Principles of Managerial Accounting	3
ECON A102	Principles of Macroeconomics	3
ECON A227	Introductory Statistics for Economics and Business	3
GER Fine Arts		3
GER Natural Sciences		3
	Credits	**15**
Third Year		
Fall		
BA A300	Organizational Theory and Behavior	3
ECON A312	Econometrics for Business and Economics	3
ECON A321	Intermediate Microeconomics	3

GER Alaska Native-Themed or Elective		3
Program Elective (upper division, ECON) [1]		3
	Credits	**15**
Spring		
BA A325	Corporate Finance	3
BA A343	Principles of Marketing	3
ECON A324	Intermediate Macroeconomics	3
GER Intercultural Fluency or Elective		3
Program Elective (upper division, ECON) [1]		3
	Credits	**15**
Fourth Year		
Fall		
BA A376	Management Information Systems	3
Program Elective (400-level in ECON except ECON A454)		3
Program Elective (upper division, ECON) [1]		3
Program Elective (upper division, ECON) [1]		3
Elective		3
	Credits	**15**
Spring		
ECON A492	Seminar in Economic Research	3
Program Elective (upper division, ECON) [1]		3
Program Elective (upper division, ECON) [1]		3
Elective		3
Elective		0-2
	Credits	**12-14**
	Total Credits	**118-124**

[1] *Complete 18 credits of 300- or 400-level ECON courses, BA A375 and/or BADA A470. No more than a total of 6 credits earned in an independent study or ECON A454 may be used to satisfy requirements for the major (e.g. 6 credits of independent study, or 3 credits of independent study and 3 credits of ECON A454).*

Minor in Economics

The Minor in Economics provides students with broad exposure to economics and develops core analytical and critical thinking skills. The minor is flexible, allowing students to choose from a wide range of courses in economics including behavioral economics, resource and energy economics, pandemic economics, economic development, health economics, econometrics, and business forecasting.

Students majoring in another subject who wish to minor in economics must complete the following requirements.[1]

Code	Title	Credits
ECON A101	Principles of Microeconomics	3
ECON A102	Principles of Macroeconomics	3
Any economics elective (100-400)		3
Upper-division economics electives		9
Total		**18**

[1] *Not available to Bachelor of Arts and Bachelor of Business Administration in Economics majors.*

A total of 18 credits is required for the minor; 9 credits must be upper-division.

Minor in Entrepreneurship

The Entrepreneurship Minor provides you with the knowledge to transform your entrepreneurial ideas into reality, whether you are considering starting your own business, growing an existing business, or driving change in a larger organization. You will develop skills essential to creating a business, including how to recognize opportunities, create strategic business plans, acquire and manage resources, and grow the business.

Students who wish to minor in entrepreneurship must complete the following requirements. All courses must be completed with a minimum grade of C.

Code	Title	Credits
Complete the following courses in sequence (12 credits):		
BA A166	Entrepreneurship and Small Business Management	3
BA A286	Entrepreneurship and Innovation	3
BA A386	The Startup Venture	3
BA A489	From Startup to Growth	3
Complete 6 credits from the following (or other courses approved by advisor):		**6**
ACCT A202	Principles of Managerial Accounting	
BA A241	Business Law I	
BA A233	Survey of Finance	
BA A300	Organizational Theory and Behavior	
BA A325	Corporate Finance	
BA A343	Principles of Marketing	
BA A388	Globalization and Business Environment	
BA A460	Marketing Management	
BA A461	Negotiation and Conflict Management	
BA A480	Marketing Media Analytics	
CE A438	Design of Civil Engineering Systems	
CSCE A401	Software Engineering	
CSCE A470	Computer Science and Engineering Capstone Project	
EE A438	Design of Electrical Engineering Systems	

ESM A450	Economic Analysis and Operations	
GEO A460	Geomatics Capstone Project	
LOG A378	Foundations of Logistics and Supply Chain Management	
ME A438	Design of Mechanical Engineering Systems	
Total		**18**

A total of 18 credits is required for this minor, at least 6 of which must be 300-level or above.

Occupational Endorsement Certificate in Entrepreneurship

The Occupational Endorsement Certificate in Entrepreneurship will help students develop an entrepreneurial approach enabling them to launch new ventures, manage and grow small businesses, and create strategic business plans.

Admission Requirements

- Complete the Admission Requirements for Occupational Endorsement Certificates (p. 46).

Graduation Requirements

- Complete the General University Requirements for Occupational Endorsement Certificates. (p. 441)
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
BA A166	Entrepreneurship and Small Business Management	3
BA A286	Entrepreneurship and Innovation	3
BA A386	The Startup Venture	3
Complete 9 credits from the following: [1]		9
BA A131	Personal Finance	
BA A151	Business Foundations	
BA A201	Introduction to Alaska Native Business	
BA A215	Introduction to Real Estate Management	
BA A231	Fundamentals of Supervision	
BA A260	Marketing Practices	
BA A264	Personal Selling	
BADA A110	Computer Concepts in Business	
COMM A241	Public Speaking	
Total		**18**

[1] *Some of these courses have prerequisites or require a placement exam prior to registration. Please see an advisor for assistance.*

A minimum of 18 credits is required for this certificate.

Program Student Learning Outcomes

Students graduating with the Occupational Endorsement Certificate in Entrepreneurship will be able to:

- Develop the framework to create an effective business plan for a startup.
- Identify and evaluate new business, marketing, and technology opportunities.
- Choose the best financing options and prepare the necessary materials for potential investor funding.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
BA A166	Entrepreneurship and Small Business Management	3
Program Elective		3
	Credits	**6**

Spring		
BA A286	Entrepreneurship and Innovation	3
Program Elective		3
	Credits	**6**
Second Year		
Fall		
BA A386	The Startup Venture	3
Program Elective		3
	Credits	**6**
	Total Credits	**18**

Bachelor of Business Administration in Finance

The Bachelor of Business Administration (BBA) in Finance provides students with the knowledge, analytical skills, and perspectives in finance needed to engage in careers in the fields of investments, corporate finance, and banking. The program also provides an excellent foundation for graduates to pursue professional certifications in investment advisory and financial analyst areas.

The BBA in Finance is accredited by the Association to Advance Collegiate Schools of Business (AACSB International).

Admission Requirements

- Complete the Admission Requirements for Baccalaureate Degrees. (p. 46)

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (p. 442).
- Complete the General Education Requirements for Baccalaureate Degrees (p. 443).
  - For 3 credits of Tier 1 Quantitative Skills, choose MATH A121 or MATH A151.
  - For 3 credits of Tier 1 Written Communication Skills, choose WRTG A212.
  - For 3 credits of Tier 1 Oral Communication Skills, choose COMM A111 or COMM A241.
  - For 3 credits of Tier 2 Humanities, choose PHIL A101.
  - For 6 credits of Tier 2 Social Sciences, choose ECON A101 and ECON A102.
- Complete the CBPP Bachelor of Business Administration Requirements. (p.)
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
BA A131	Personal Finance	3
BA A242	Business Law II	3
BA A377	Operations Management	3
BA A380	Investment Management	3
BA A385	Intermediate Financial Management	3
BA A462	Strategic Management	3
PHIL A101	Introduction to Logic	3
Complete at least 12 credits from the following:		12
BA A426	Financial Institutions	
BA A427	International Finance	
BA A451	Advanced Investment Strategies	
BA A452	Financial Derivatives	
BA A453	Bond Market Analysis	
BA A491A	Student Managed Portfolio	
Complete 9 credits of upper-division business electives in ACCT, BA, BADA, ECON, HA, or LOG		9
Total		**42**

A minimum of 120 credits is required for the degree, of which 48 credits must be upper-division.

Honors in Finance

The Bachelor of Business Administration (BBA) in Finance recognizes distinguished achievement by conferring programmatic honors in finance. In order to receive honors in finance, a student must meet the following requirements:

- Declare BBA in Finance as their major;
- Meet the requirements for the BBA in Finance;
- Earn a minimum cumulative UAA GPA of 3.75;
- Meet the requirements for graduation with honors as published in the UAA catalog.

Program Student Learning Outcomes

Students graduating with a BBA in Finance will be able to have:

- A baccalaureate content knowledge of his/her major discipline.
- Knowledge of business environments.
- Analytical skills.
- Professional communication skills.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with

university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.

- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year

Fall		**Credits**
BA A131	Personal Finance	3
COMM A111 or COMM A241	Fundamentals of Oral Communication or Public Speaking	3
PHIL A101	Introduction to Logic	3
WRTG A111	Writing Across Contexts	3
GER Natural Sciences		3
	Credits	**15**
Spring		
BADA A110	Computer Concepts in Business	3
MATH A121 or MATH A151	Applied College Algebra or College Algebra for Calculus	3-4
WRTG A212	Writing and the Professions	3
GER Humanities		3
GER Natural Sciences w/ Lab		4
	Credits	**16-17**

Second Year

Fall		
ACCT A201	Principles of Financial Accounting	3
BA A241	Business Law I	3
BA A280	Managerial Communications	3
ECON A101	Principles of Microeconomics	3
MATH A221 or MATH A251 or MATH A251F	Applied Calculus for Managerial and Social Sciences or Calculus I or F.A.T. Calculus I	3-6
	Credits	**15-18**
Spring		
ACCT A202	Principles of Managerial Accounting	3
BA A242	Business Law II	3
ECON A102	Principles of Macroeconomics	3
ECON A227	Introductory Statistics for Economics and Business	3
GER Fine Arts		3
	Credits	**15**

Third Year

Fall		
BA A300	Organizational Theory and Behavior	3
BA A325	Corporate Finance	3
BA A343	Principles of Marketing	3
BA A375 or ECON A312 or ECON A329	Statistics for Business and Economics or Econometrics for Business and Economics or Economic and Business Forecasting	3
GER Alaska Native-Themed or Elective		3
	Credits	**15**
Spring		
BA A376	Management Information Systems	3
BA A377	Operations Management	3
BA A380	Investment Management	3
BA A385	Intermediate Financial Management	3
GER Intercultural Fluency or Elective		3
	Credits	**15**

Fourth Year

Fall		
BA A462	Strategic Management	3
Upper Division Program Elective		3
Upper Division Program Elective		3
Upper Division Program Elective (ACCT, BA, BADA, ECON, HA, or LOG)		3
Elective		3
	Credits	**15**
Spring		
Upper Division Program Elective		3
Upper Division Program Elective		3
Upper Division Program Elective (ACCT, BA, BADA, ECON, HA, or LOG)		3
Upper Division Program Elective (ACCT, BA, BADA, ECON, HA, or LOG)		3

Elective	0-2
Credits	**12-14**
Total Credits	**118-124**

Associate of Applied Science in General Business

The Associate of Applied Science (AAS) in General Business provides students with a general knowledge of entrepreneurship, human resource management, business law concepts, marketing, and financial statement analysis. Students will gain a better understanding of for-profit and not-for-profit businesses, issues of social responsibility, business ethics, and forms of business ownership.

To provide maximum transferability to a Bachelor of Business Administration, it is recommended that students meet with an advisor to selectively choose courses.

Admission Requirements

- Complete the Admission Requirements for Associate Degrees. (p. 46)

Graduation Requirements

- Complete the General University Requirements for Associate Degrees (p. 441).
- Complete the General Education Requirements for Associate of Applied Science Degrees (p. 441).
  - For the Quantitative Skills requirement choose MATH A105 higher, but not MATH A104 or MATH A115.
  - For the Written Communication Skills requirement, WRTG A212 is recommended.
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
Core Courses		
ACCT A201	Principles of Financial Accounting [1]	3
ACCT A202	Principles of Managerial Accounting	3
BA A151	Business Foundations	3
BA A166	Entrepreneurship and Small Business Management	3
BA A231	Fundamentals of Supervision	3
BA A233	Survey of Finance	3
BA A241	Business Law I	3
BA A260	Marketing Practices	3
BADA A110	Computer Concepts in Business	3
ECON A101	Principles of Microeconomics	3
ECON A102	Principles of Macroeconomics	3
LGOP A110	Logistics, Information Systems and Customer Service	3
MATH A105	Intermediate Algebra	3-6
or MATH A121	Applied College Algebra	
or MATH A151	College Algebra for Calculus	
or MATH A221	Applied Calculus for Managerial and Social Sciences	
or MATH A251	Calculus I	
or MATH A251F	F.A.T. Calculus I	
Electives		
Complete 9 credits of advisor-approved electives. Courses must be from: ACCT, BA, BADA, ECON, LGOP or LOG		9
Total		**48-51**

[1] *The ACCT A101 and ACCT A102 sequence may be used to satisfy the ACCT A201 requirement for this degree.*

A minimum of 60 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with an Associate of Applied Science in General Business will be able to:

- Convey knowledge of business concepts and applications
- Illustrate knowledge of how business practices impact society
- Apply quantitative techniques to solve business problems
- Demonstrate proficient oral and/or written communication skills

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.

- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
BA A151	Business Foundations	3
BA A166	Entrepreneurship and Small Business Management	3
COMM A111 or COMM A241	Fundamentals of Oral Communication or Public Speaking	3
MATH A105 or MATH A121 or MATH A151	Intermediate Algebra or Applied College Algebra or College Algebra for Calculus	3-4
WRTG A111	Writing Across Contexts	3
	Credits	**15-16**
Spring		
BADA A110	Computer Concepts in Business	3
ECON A101	Principles of Microeconomics	3
LGOP A110	Logistics, Information Systems and Customer Service	3
WRTG A212	Writing and the Professions	3
Program Elective (ACCT, BA, BADA, ECON, LGOP or LOG)		3
	Credits	**15**
Second Year		
Fall		
ACCT A201	Principles of Financial Accounting	3
BA A231	Fundamentals of Supervision	3
BA A260	Marketing Practices	3
ECON A102	Principles of Macroeconomics	3
Program Elective (ACCT, BA, BADA, ECON, LGOP or LOG)		3
	Credits	**15**
Spring		
BA A233	Survey of Finance	3
BA A241	Business Law I	3
ACCT A202	Principles of Managerial Accounting	3
Program Elective (ACCT, BA, BADA, ECON, LGOP or LOG)		3
Elective		3
	Credits	**15**
	Total Credits	**60-61**

Bachelor of Business Administration in Global Logistics and Supply Chain Management

Admission to this program is currently suspended. Contact the College of Business and Public Policy for more information.

Occupational Endorsement Certificate in Hospitality

Admission to this program is currently suspended. Contact the College of Business and Public Policy for more information.

Minor in Hospitality Administration

This minor is not available.

Bachelor of Business Administration in Management

The Bachelor of Business Administration (BBA) in Management prepares students for career opportunities as managers, leaders, entrepreneurs, and innovators in corporations, non-profit organizations, and government agencies. Students will learn a broad array of knowledge, skills, and abilities, such as effective negotiation strategies, conflict resolutions and arbitrations, strategic business plans, strategy formulation for complex and dynamic environments, tools to solve business challenges, and the value of ethics and social responsibility.

The BBA in Management is accredited by the Association to Advance Collegiate Schools of Business (AACSB International).

Admission Requirements

- Complete the Admission Requirements for Baccalaureate (p. 46)Degrees (p. 46).

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (p. 442).
- Complete the General Education Requirements for Baccalaureate Degrees (p. 443).
  - For 3 credits of Tier 1 Quantitative Skills, choose MATH A121 or MATH A151.
  - For 3 credits of Tier 1 Written Communication Skills, choose WRTG A212.
  - For 3 credits of Tier 1 Oral Communication Skills, choose COMM A111 or COMM A241.
  - For 6 credits of Tier 2 Social Sciences, choose ECON A101 and ECON A102.

- Complete the CBPP Bachelor of Business Administration Requirements (p.).
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
BA A215	Introduction to Real Estate Management	3
BA A361	Human Resource Management	3
BA A461	Negotiation and Conflict Management	3
Total		**9**

Choose one of the following concentrations: management or property management and real estate.

Code	Title	Credits
Management Concentration		
BA A151	Business Foundations	3
BA A388	Globalization and Business Environment	3
BA A462	Strategic Management	3
BA A481	Applications in Management	3
BA A489	From Startup to Growth	3
12 credits of upper-division business electives in ACCT, BA, BADA, ECON, HA, or LOG		12
Total		**27**

Code	Title	Credits
Property Management and Real Estate Concentration		
BA A225	Real Estate Leasing	3
BA A302	Real Estate Maintenance and Risk Management	3
BA A303	Real Estate Investment Finance	3
BA A306	Real Estate Principles	3
BA A421	Real Estate Management Capstone	3
BA A432	Real Estate Law	3
6 credits from the following:		6
BA A395	Property Management and Real Estate Internship [1]	
BA A431	Real Estate Appraisal	
BA A489	From Startup to Growth	
6 credits of upper-division business electives in ACCT, BA, BADA, ECON, HA, or LOG		6
Total		**30**

[1] *Students with a concentration in property management and real estate may apply 6 credits of BA A395 to meeting degree requirements.*

A minimum of 120 credits is required for the degree, of which 45-48 credits must be upper-division.

Program Student Learning Outcomes

Students graduating with a BBA in Management will be able to have:

- A baccalaureate content knowledge of his/her major discipline.
- Knowledge of business environments.
- Analytical skills.
- Professional communication skills.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

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- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

Sample Plan - Management

First Year		
Fall		**Credits**
BA A151	Business Foundations	3
COMM A111	Fundamentals of Oral Communication	3
WRTG A111	Writing Across Contexts	3
GER Fine Arts		3

GER Humanities		3
	Credits	**15**
Spring		
BADA A110	Computer Concepts in Business	3
MATH A121 or MATH A151	Applied College Algebra or College Algebra for Calculus	3-4
WRTG A212	Writing and the Professions	3
GER Humanities		3
GER Natural Sciences w/ Lab		4
	Credits	**16-17**
Second Year		
Fall		
ACCT A201	Principles of Financial Accounting	3
BA A241	Business Law I	3
BA A280	Managerial Communications	3
ECON A101	Principles of Microeconomics	3
MATH A221 or MATH A251 or MATH A251F	Applied Calculus for Managerial and Social Sciences or Calculus I or F.A.T. Calculus I	3-6
	Credits	**15-18**
Spring		
ACCT A202	Principles of Managerial Accounting	3
BA A215	Introduction to Real Estate Management	3
ECON A102	Principles of Macroeconomics	3
ECON A227	Introductory Statistics for Economics and Business	3
GER Natural Sciences		3
	Credits	**15**
Third Year		
Fall		
BA A300	Organizational Theory and Behavior	3
BA A325	Corporate Finance	3
BA A343	Principles of Marketing	3
GER Alaska Native-Themed or Elective		3
Elective		3
	Credits	**15**
Spring		
BA A361	Human Resource Management	3
BA A375 or BADA A470 or ECON A312 or ECON A329	Statistics for Business and Economics or Business Analytics, Data Science, and Machine Learning or Econometrics for Business and Economics or Economic and Business Forecasting	3
BA A376	Management Information Systems	3
GER Intercultural Fluency or Elective		3
Upper Division Program Elective (ACCT, BA, BADA, ECON, HA, or LOG)		3
	Credits	**15**
Fourth Year		
Fall		
BA A388	Globalization and Business Environment	3
BA A461	Negotiation and Conflict Management	3
BA A462	Strategic Management	3
Upper Division Program Elective (ACCT, BA, BADA, ECON, HA, or LOG)		3
Elective		3
	Credits	**15**
Spring		
BA A481	Applications in Management	3
BA A489	From Startup to Growth	3
Upper Division Program Elective (ACCT, BA, BADA, ECON, HA, or LOG)		3
Upper Division Program Elective (ACCT, BA, BADA, ECON, HA, or LOG)		3
Elective		0-2
	Credits	**12-14**
	Total Credits	**118-124**

Sample Plan - Property Management & Real Estate

First Year		
Fall		**Credits**
COMM A111	Fundamentals of Oral Communication	3
WRTG A111	Writing Across Contexts	3
GER Fine Arts		3
GER Humanities		3
Elective		3
	Credits	**15**
Spring		
BA A215	Introduction to Real Estate Management	3
BADA A110	Computer Concepts in Business	3
MATH A121 or MATH A151	Applied College Algebra or College Algebra for Calculus	3-4
WRTG A212	Writing and the Professions	3
GER Natural Sciences w/ Lab		4
	Credits	**16-17**
Second Year		
Fall		
ACCT A201	Principles of Financial Accounting	3
BA A225	Real Estate Leasing	3
BA A280	Managerial Communications	3
ECON A101	Principles of Microeconomics	3

MATH A221 or MATH A251 or MATH A251F	Applied Calculus for Managerial and Social Sciences or Calculus I or F.A.T. Calculus I	3-6
	Credits	**15-18**
Spring		
ACCT A202	Principles of Managerial Accounting	3
ECON A102	Principles of Macroeconomics	3
ECON A227	Introductory Statistics for Economics and Business	3
GER Humanities		3
GER Natural Sciences		3
	Credits	**15**
Third Year		
Fall		
BA A241	Business Law I	3
BA A300	Organizational Theory and Behavior	3
BA A302	Real Estate Maintenance and Risk Management	3
BA A325	Corporate Finance	3
BA A343	Principles of Marketing	3
	Credits	**15**
Spring		
BA A303	Real Estate Investment Finance	3
BA A361	Human Resource Management	3
BA A375 or BADA A470 or ECON A312 or ECON A329	Statistics for Business and Economics or Business Analytics, Data Science, and Machine Learning or Econometrics for Business and Economics or Economic and Business Forecasting	3
BA A376	Management Information Systems	3
Upper Division Program Elective (concentration)		3
	Credits	**15**
Fourth Year		
Fall		
BA A306	Real Estate Principles	3
BA A461	Negotiation and Conflict Management	3
Upper Division Program Elective (concentration)		3
Upper Division Program Elective (ACCT, BA, BADA, ECON, HA, or LOG)		3
GER Alaska Native-Themed or Elective		3
	Credits	**15**
Spring		
BA A421	Real Estate Management Capstone	3
BA A432	Real Estate Law	3
GER Intercultural Fluency or Elective		3
Upper Division Program Elective (ACCT, BA, BADA, ECON, HA, or LOG)		3
Elective		0-2
	Credits	**12-14**
	Total Credits	**118-124**

Bachelor of Business Administration in Marketing

The Bachelor of Business Administration (BBA) in Marketing prepares students for careers in the marketing profession in business corporations, governments as well as non-profit organizations. Students gain knowledge in principles of marketing, essential skills to create, communicate, deliver, and exchange marketing information and values for customers, clients, partners, and society at large. Students learn various tools for marketing planning, pricing, promotion, and distribution of ideas, goods, and services in local, national, and global markets as well as designing, executing, and analyzing social media, marketing research, and analytics. This degree also prepares students for graduate studies in marketing.

The BBA in Marketing is accredited by the Association to Advance Collegiate Schools of Business (AACSB International).

Admission Requirements

- Complete the Admission Requirements for Baccalaureate D (p. 46)egrees (p. 46).

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (p. 442).
- Complete the General Education Requirements for Baccalaureate Degrees (p. 443).
  - For 3 credits of Tier 1 Quantitative Skills, choose MATH A121 or MATH A151.
  - For 3 credits of Tier 1 Written Communication Skills, choose WRTG A212.
  - For 3 credits of Tier 1 Oral Communication Skills, choose COMM A111 or COMM A241.
  - For 6 credits of Tier 2 Social Sciences, choose ECON A101 and ECON A102.
- Complete the CBPP Bachelor of Business Administration Requirements (p.).
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
BA A151	Business Foundations	3
BA A381	Consumer Behavior and Relationship Management	3
BA A383	Market Research: Methods, Metrics and Strategies	3
BA A388	Globalization and Business Environment	3

BA A460	Marketing Management	3
BA A462	Strategic Management	3
BA A480	Marketing Media Analytics	3
BA A482	Integrated Marketing Communications	3
9 additional credits of upper-division electives in ACCT, BA, BADA, ECON, HA, or LOG. Recommended courses include:		9
BA A347	International Marketing	
BA A387	International Business Management	
BA A461	Negotiation and Conflict Management	
ECON A363	International Economics	
Total		**33**

A minimum of 120 credits is required for the degree, of which 45 must be upper-division.

Program Student Learning Outcomes

Students graduating with a Bachelor of Business Administration in Marketing will be able to have:

- A baccalaureate content knowledge of his/her major discipline.
- Knowledge of business environments.
- Analytical skills.
- Professional communication skills.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

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- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
BA A151	Business Foundations	3
COMM A111	Fundamentals of Oral Communication	3
WRTG A111	Writing Across Contexts	3
GER Fine Arts		3
GER Humanities		3
	Credits	**15**
Spring		
BADA A110	Computer Concepts in Business	3
MATH A121 or MATH A151	Applied College Algebra or College Algebra for Calculus	3-4
WRTG A212	Writing and the Professions	3
GER Humanities		3
GER Natural Sciences w/ Lab		4
	Credits	**16-17**
Second Year		
Fall		
ACCT A201	Principles of Financial Accounting	3
BA A241	Business Law I	3
BA A280	Managerial Communications	3
ECON A101	Principles of Microeconomics	3
MATH A221 or MATH A251 or MATH A251F	Applied Calculus for Managerial and Social Sciences or Calculus I or F.A.T. Calculus I	3-6
	Credits	**15-18**
Spring		
ACCT A202	Principles of Managerial Accounting	3
ECON A102	Principles of Macroeconomics	3
ECON A227	Introductory Statistics for Economics and Business	3
GER Natural Sciences		3
Elective		3
	Credits	**15**

Third Year		
Fall		
BA A300	Organizational Theory and Behavior	3
BA A325	Corporate Finance	3
BA A343	Principles of Marketing	3
BA A375 or BADA A470 or ECON A312 or ECON A329	Statistics for Business and Economics or Business Analytics, Data Science, and Machine Learning or Econometrics for Business and Economics or Economic and Business Forecasting	3
GER Alaska Native-Themed or Elective		3
	Credits	**15**
Spring		
BA A376	Management Information Systems	3
BA A381	Consumer Behavior and Relationship Management	3
BA A482	Integrated Marketing Communications	3
GER Intercultural Fluency or Elective		3
Upper Division Program Elective (ACCT, BA, BADA, ECON, HA, or LOG)		3
	Credits	**15**
Fourth Year		
Fall		
BA A383	Market Research: Methods, Metrics and Strategies	3
BA A388	Globalization and Business Environment	3
BA A462	Strategic Management	3
Upper Division Program Elective (ACCT, BA, BADA, ECON, HA, or LOG)		3
Elective		3
	Credits	**15**
Spring		
BA A460	Marketing Management	3
BA A480	Marketing Media Analytics	3
Upper Division Program Elective (ACCT, BA, BADA, ECON, HA, or LOG)		3
Elective		3
Elective		0-2
	Credits	**12-14**
	Total Credits	**118-124**

Minor in Real Estate

The Real Estate Minor is a valuable way to augment your degree. It offers a collection of courses that introduce students to the many facets of real estate -- for both professional and personal use. Topics include real estate management, lease agreements, real estate finance, and property law.

Students majoring in another subject who wish to minor in real estate must complete the following requirements.[1] All courses must be completed with a minimum grade of C. Students pursuing a baccalaureate degree outside the College of Business and Public Policy (CBPP) should see the departmental advisor.

Code	Title	Credits
BA A215	Introduction to Real Estate Management	3
BA A241	Business Law I	3
BA A303	Real Estate Investment Finance	3
BA A306	Real Estate Principles	3
BA A432	Real Estate Law	3
ECON A102	Principles of Macroeconomics	3
Total		**18**

[1] *Not available to Bachelor of Business Administration in Management majors.*

A total of 18 credits is required for the minor.

Associate of Applied Science in Small Business Administration

Admission to this program is currently suspended. Contact the College of Business and Public Policy for more information.

School of Education

School of Education

Department of Early Learning and Teaching (https://www.uaa.alaska.edu/academics/school-of-education/contact-us.cshtml/)

Professional Studies Building, Room 102
(907) 786-4402, uaa_soedu@alaska.edu

Associate of Applied Science in Early Childhood Development

The Associate of Applied Science (AAS) in Early Childhood Development is a program in the School of Education (SOE) that prepares teaching assistants, Head Start teachers, preschool teachers, and other learning professionals to work in early care and education settings, including the public school system. The program prepares candidates to work with young children from birth to eight years. Unique features of the program include a foundation in content with coursework in child development, culturally responsive curriculum practices, and family engagement. Candidates engage in field experiences throughout their coursework to directly apply teaching and learning principles. In addition, candidates complete a culminating semester-long practicum experience.

The AAS in Early Childhood Development is accredited by the National Association for the Education of Young Children (NAEYC).

Admission Requirements

- Complete the Admission Requirements for Associate Degrees (p. 46).

Special Considerations

- Most courses in the Core Requirements include a clinical field experience expectation. Candidates must complete and clear a background check from the Alaska Department of Health within the first semester of enrollment to participate in these experiences. The SOE Office of Student Services will facilitate this process.
- Candidates must submit an application to the SOE Office of Student Services for placement in the Early Childhood Practicum. The SOE Office of Student Services will facilitate this process.
- Some schools and agencies may require a tuberculosis (TB) test before entering their facility.
- Practica, internships, and other field placements are made only in partnering school districts and agencies. Placements outside of partner facilities will be considered on a case-by-case basis. The school districts and agencies partnering with the School of Education reserve the right to request additional information and/or preparation from candidates as determined by their established policies and practices. Cooperating districts and agencies also determine the available spaces and placements for candidates. Placements may become competitive if the number of applicants exceeds the number of spaces. Districts and agencies also reserve the right to refuse or terminate placements when candidates do not meet an acceptable standard of performance. Thus, while the university makes every effort to find appropriate field placements for candidates, admittance to a degree/certificate/endorsement program does not guarantee acceptance by cooperating school districts or agencies. Unacceptable academic performance, an unprofessional attitude, unsatisfactory field reports, violation of professional ethics or other factors may result in removal from the field placement.
- Candidates who have taken all or part of an approved program at another university must take at least 9 credits of approved education courses at the University of Alaska prior to being admitted to an advanced practicum or internship.

Graduation Requirements

- Complete the General University Requirements for Associate Degrees (p. 441).
- Complete the General Education Requirements for Associate of Applied Science Degrees (p. 441).
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
Core Courses		
EDEC A105	Introduction to the Field of Early Childhood Education	3
EDEC A106	Creativity and the Arts in Early Childhood	3
EDEC A107	Child Development and Learning	3
EDEC A108	Health, Nutrition and Wellness for Children Birth-12	3
EDEC A190	Selected Topics in Early Childhood	3
EDEC A206	Interdisciplinary Curriculum for Young Children	3
EDEC A210	Guiding Young Children	3
EDEC A241	Infant and Toddler Development	3
EDEC A242	Culturally Responsive Family Engagement	3
EDEC A292	Early Childhood Practicum Seminar	3
EDEC A295	Early Childhood Practicum [1]	3
EDEC A303	Young Children in Inclusive Settings	3
Total		**36**

[1] *To be admitted to EDEC A295, applicants must complete an application and have earned a minimum grade of C in all EDEC courses.*

A minimum of 60 credits is required for the degree.

Program Student Learning Outcomes

Student outcomes are based on the Standards for Alaska's Teachers (http://www.eed.state.ak.us/standards/). Outcomes are also based on the professional preparation standards of the National Association for the Education of Young Children (NAEYC) (http://www.naeyc.org). The students will demonstrate the following outcomes:

- Create a healthy, respectful, supportive, and challenging learning environment based on knowledge of child development.
- Create respectful, reciprocal relationships that support and empower families, and involve all families in their children's development and learning.
- Use systematic observations, documentation, and other effective assessment strategies in a responsible way, in partnership with families and other professionals, to positively influence children's development and learning.
- Design effective approaches to teaching and learning, implement and evaluate experiences that promote positive development and learning for all children.
- Incorporate knowledge of content areas to create appropriate experiences for young children.
- Use ethical guidelines and other professional standards related to early childhood practice.
- Demonstrate knowledgeable, reflective, and critical perspectives on professional practice, making informed decisions that integrate knowledge from a variety of sources.

The expected mastery of student outcomes differs in accordance with program level. Students who complete the Associate of Applied Science in Early Childhood Development will be proficient entry-level child

care workers, have knowledge of child development and demonstrate basic abilities in child care paraprofessional skills.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

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First Year		
Fall		**Credits**
COMM A235 or COMM A241	Small Group Communication or Public Speaking	3
EDEC A105	Introduction to the Field of Early Childhood Education	3
EDEC A106	Creativity and the Arts in Early Childhood	3
EDEC A107	Child Development and Learning	3
GER Written Communication Skills		3
	Credits	**15**
Spring		
EDEC A108	Health, Nutrition and Wellness for Children Birth-12	3
EDEC A190	Selected Topics in Early Childhood	1-3
EDEC A241	Infant and Toddler Development	3
MATH A121 or MATH A151 or STAT A200	Applied College Algebra or College Algebra for Calculus or Elementary Statistics	3
GER Written Communication Skills		3
	Credits	**13-15**
Second Year		
Fall		
EDEC A206	Interdisciplinary Curriculum for Young Children	3
EDEC A210	Guiding Young Children	3
EDEC A242	Culturally Responsive Family Engagement	3
Elective [1]		3
	Credits	**12**
Spring		
EDEC A292	Early Childhood Practicum Seminar	3
EDEC A295	Early Childhood Practicum	3
EDEC A303	Young Children in Inclusive Settings	3
Elective [1]		6
	Credits	**15**
	Total Credits	**55-57**

[1] *If a student is planning on completing the BA in Early Childhood Education, the program recommends taking Tier Two GER requirements (ANTH A200 or PSY A111 or HIST A132) for the elective credits.*

Bachelor of Arts in Early Childhood Education

The Bachelor of Arts (BA) in Early Childhood Education is a program in the School of Education (SOE) that prepares Head Start teachers, preschool teachers, and other learning professionals to work in early care and education settings, including the public school system, agencies, and hospitals. The program prepares candidates to work with young children from birth to eight years. Unique features of the program include a foundation in content with coursework in child development, culturally responsive curriculum practices, and family engagement. Candidates engage in field experiences throughout their coursework to directly apply teaching and learning principles. In addition, candidates complete a formative semester-long practicum experience midway through the program and a culminating year-long internship.

Licensure and/or Certification

All professionals who are new to the teaching profession or are new to teaching in Alaska must apply for Initial teacher certification (Type A license) from the Alaska Department of Education &

Early Development. The licensure concentration of the BA in Early Childhood Education is provisionally approved by the Alaska Department of Education & Early Development (DEED) for teacher licensure in PK-3. The following requirements must be met in order to receive a State Approved Verification form for teacher certification:

- Complete the graduation requirements, with a minimum grade of C in all courses.
- Cumulative GPA of 2.75.
- Passing scores on the Praxis Core for Academic Skills for Educators (CASE).
- Passing scores on Praxis II Content Knowledge Exam (See Alaska Department of Education).

This program is designed to meet the educational requirements for professional licensure or certification in the State of Alaska. However, the program might not meet the educational requirements for professional licensure or certification in other states. Please see UAA's Licensure and Certification website (https://www.uaa.alaska.edu/academics/office-of-academic-affairs/licensure.cshtml/) for more information.

Admission Requirements

- Complete the Admission Requirements for Baccalaureate Degrees (p. 46).

Special Considerations

- Most courses in the Professional Requirements include a clinical field experience expectation. Candidates must complete and clear a background check from the Alaska Department of Health within the first semester of enrollment to participate in these experiences. The SOE Office of Student Services will facilitate this process.
- Candidates must submit an application to the SOE Office of Student Services for placement in the Early Childhood Practicum. The SOE Office of Student Services will facilitate this process.
- Candidates must submit an application, including the DEED Student Teaching Authorization, to the SOE Office of Student Services for placement in Early Childhood Student Teaching 1. The SOE Office of Student Services will facilitate this process.
- Candidates must demonstrate professional behaviors and dispositions consistent with the School of Education's Core Values and abide by the UAA Student Code of Conduct and the Code of Ethics and Professional Teaching Standards adopted by the Alaska Professional Teaching Practices Commission. Candidates are formally assessed on professional dispositions separately from academic assessments for the purposes of quality monitoring.
- Some schools and agencies may require a tuberculosis (TB) test before entering their facility.
- Practica, internships, and other field placements are made only in partnering school districts and agencies. Placements outside of partner facilities will be considered on a case-by-case basis. The school districts and agencies partnering with the School of Education reserve the right to request additional information and/or preparation from candidates as determined by their established policies and practices. Cooperating districts and agencies also determine the available spaces and placements for candidates. Placements may become competitive if the number of applicants exceeds the number of spaces. Districts and agencies also reserve the right to refuse or terminate placements when candidates do not meet an acceptable standard of performance. Thus, while the university makes every effort to find appropriate field placements for candidates, admittance to a degree/certificate/endorsement program does not guarantee acceptance by cooperating school districts or agencies. Unacceptable academic performance, an unprofessional attitude, unsatisfactory field reports, violation of professional ethics or other factors may result in removal from the field placement.
- Candidates who have taken all or part of an approved program at another university must take at least 9 credits of approved education courses at the University of Alaska prior to being admitted to an advanced practicum or internship.

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (p. 442).
- Complete the General Education Requirements for Baccalaureate Degrees (p. 443).
  - For the Quantitative Skills GER, MATH A121, MATH A151 or STAT A200 are recommended.
  - For the Social Sciences GER, ANTH A200 is recommended for the Licensure and Professional concentrations; PSY A111 or PSY A150 are recommended for the Child Life Specialist concentration.
  - For the Humanities GER, HIST A132 is recommended
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
Core Courses		
EDEC A105	Introduction to the Field of Early Childhood Education	3
EDEC A106	Creativity and the Arts in Early Childhood	3
EDEC A107	Child Development and Learning	3
EDEC A108	Health, Nutrition and Wellness for Children Birth-12	3
EDEC A206	Interdisciplinary Curriculum for Young Children	3
EDEC A210	Guiding Young Children	3
EDEC A241	Infant and Toddler Development	3
EDEC A242	Culturally Responsive Family Engagement	3
EDEC A292	Early Childhood Practicum Seminar	3
EDEC A295	Early Childhood Practicum	3
EDEC A303	Young Children in Inclusive Settings	3

EDEC A320	Foundations of Literacy and Language Development	3
EDEC A321	Language, Reading and Culture	3
EDEC A407	Observation, Documentation, and Assessment of Young Children	3
EDEC A408	Children's Literature: Early Childhood Years	3
EDEC A490	Selected Topics in Early Childhood Education	3
EDFN A300	Philosophical and Social Context of American Education	3
or EDFN A304	Comparative Education	
Complete one of the tracks outlined below.		
Total		**51**

Licensed Birth-3rd grade Teacher Track

A teaching certificate is required for students who wish to teach in public schools from Preschool through Third grade, or who desire to work with the Alaska Infant Learning Programs through the Department of Health and Social Services and require a teaching license in early childhood education.

In addition to the Internship and Seminar requirements, the following foundation courses are selected to provide future early childhood educators with the skills and background knowledge in the various subjects they will be expected to teach. The selection is based on national and state standards for content preparation.

Code	Title	Credits
Foundation Courses		
Humanities (Select one of the following)		3
HIST A131	History of the United States I	
HIST A132	History of the United States II	
Quantitative Skills (Select one of the following or higher)		3
MATH A121	Applied College Algebra	
MATH A151	College Algebra for Calculus	
STAT A200	Elementary Statistics	
Quantitative Reasoning (Select one of the following)		3
MATH A211	Mathematics for Elementary School Teachers I	
MATH A212	Mathematics for Elementary School Teachers II	
Alaska Studies (Select one of the following)		3
AKNS A201	Alaska Native Perspectives	
AKNS A240	Alaska Native Cultural Orientation - Alutiiq/Sugpiaq	
AKNS/PS A313	Tribes, Nations and Peoples	
AKNS/PS A346	Alaska Native Politics	
ANTH A200	Alaska Native Cultures	
EDFN A478	Issues in Alaska Native Education, K-12	
HIST A341	History of Alaska	
PS A345	Alaska Government and Politics	
Internship and Seminar Requirements		
EDEC A403	Mathematics and Science in Early Childhood	3
EDEC A404	Literacy Methods for Young Children	3
EDEC A492Y	Early Childhood Student Teaching 1 Seminar	3
EDEC A492Z	Early Childhood Capstone Seminar	3
EDEC A495Y	Early Childhood Student Teaching 1	3
EDEC A495Z	Early Childhood Student Teaching 2	9
Total		**36**

Child Life Specialist Track

The Child Life Specialist track is for students who wish to help infants, children, youth, and families cope with the stress and uncertainty of acute and chronic illness, injury, trauma, disability, loss, and bereavement in both hospital and community settings. This program can lead to becoming a certified Child Life Specialist.

Code	Title	Credits
EDEC A190	Selected Topics in Early Childhood (Selected topic must be "Child Life Specialist" and taught by a certified Child Life Specialist)	3
EDEC A492	Early Childhood Professional Seminar	3
EDEC A495	Early Childhood Internship	9
PSY A143	Death and Dying	3
PSY A348	Infant and Early Childhood Mental Health	3
PSY A365	Child and Adolescent Development	3
Total		**24**

Early Childhood Education Professional Track

The Early Childhood Education Professional track is for students who wish to work with infants, children, youth and families in public, private, and community settings as leaders in the field. Leadership opportunities may include becoming a director, manager, or cultural leader in settings such as Head Start, local preschools and childcares, public agencies, and the Alaska Native Studies Language Nests programs.

Code	Title	Credits
EDEC A492	Early Childhood Professional Seminar	3
EDEC A495	Early Childhood Internship	9
Advisor approved electives		12
Total		**24**

A minimum of 120 credits is required for the degree, of which 39 must be upper division.

Program Student Learning Outcomes

Student outcomes for the early childhood programs are based on the Standards for Alaska Beginning Teachers (https://education.alaska.gov/standards/). Outcomes are also based on the professional preparation standards of the National Association for the Education of Young Children (https://www.naeyc.org/) (NAEYC) and the Department of Education and Early Development Core Knowledge and Competencies (https://www.threadalaska.org/wp-content/uploads/imported_files/docs/SEED/CKC%202nd%20Edition%20March%202020%20digital.pdf) Students will demonstrate the following outcomes:

- Create a healthy, respectful, supportive, and challenging learning environment based on knowledge of child development and learning to meet diverse children's needs.
- Create respectful, culturally responsive relationships that support and empower families, and involve all families in their children's development and learning.
- Use systematic observations, documentation, and other effective assessment strategies in a responsible way, in partnership with families and other professionals, to positively influence children's development and learning.
- Design effective approaches to teaching and learning, implement and evaluate experiences that promote positive development and learning for all children.
- Incorporate knowledge of content areas to create appropriate experiences for young children.
- Use ethical guidelines and other professional standards related to early childhood practice.
- Demonstrate knowledgeable, reflective, and critical perspectives on professional practice, making informed decisions that integrate knowledge from a variety of sources.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

Sample Plan - Licensed Birth-3rd Grade Teacher Track

First Year		
Fall		**Credits**
COMM A235 or COMM A241	Small Group Communication or Public Speaking	3
EDEC A105	Introduction to the Field of Early Childhood Education	3
EDEC A106	Creativity and the Arts in Early Childhood	3
EDEC A107	Child Development and Learning	3
WRTG A111	Writing Across Contexts	3
	Credits	**15**
Spring		
EDEC A108	Health, Nutrition and Wellness for Children Birth-12	3
EDEC A241	Infant and Toddler Development	3
MATH A121 or MATH A151 or STAT A200	Applied College Algebra or College Algebra for Calculus or Elementary Statistics	3-4
GER Natural Science		3
GER Written Communication Skills		3
	Credits	**15-16**
Second Year		
Fall		
ANTH A200 or PSY A111 or PSY A150	Alaska Native Cultures or Introduction to Psychology or Lifespan Development	3
EDEC A206	Interdisciplinary Curriculum for Young Children	3
EDEC A210	Guiding Young Children	3

EDEC A242	Culturally Responsive Family Engagement	3
GER Natural Sciences		3
GER Natural Sciences Lab		1
	Credits	**16**
Spring		
EDEC A292	Early Childhood Practicum Seminar	3
EDEC A295	Early Childhood Practicum	3
EDEC A303	Young Children in Inclusive Settings	3
HIST A132	History of the United States II	3
GER Fine Arts		3
	Credits	**15**
Third Year		
Fall		
EDEC A320	Foundations of Literacy and Language Development	3
EDEC A321	Language, Reading and Culture	3
MATH A211 or MATH A212	Mathematics for Elementary School Teachers I or Mathematics for Elementary School Teachers II	3
GER Humanites		3
Elective		3
	Credits	**15**
Spring		
EDEC A407	Observation, Documentation, and Assessment of Young Children	3
EDEC A408	Children's Literature: Early Childhood Years	3
EDFN A300	Philosophical and Social Context of American Education	3
Program Elective (Alaska Studies)		3
Elective		3
	Credits	**15**
Fourth Year		
Fall		
EDEC A403	Mathematics and Science in Early Childhood	3
EDEC A404	Literacy Methods for Young Children	3
EDEC A490	Selected Topics in Early Childhood Education	3
EDEC A492Y	Early Childhood Student Teaching 1 Seminar	3
EDEC A495Y	Early Childhood Student Teaching 1	3
	Credits	**15**
Spring		
EDEC A492Z	Early Childhood Capstone Seminar	3
EDEC A495Z	Early Childhood Student Teaching 2	9
Upper Division Elective		3
	Credits	**15**
	Total Credits	**121-122**

Sample Plan - Child Life Specialist Track

First Year		
Fall		**Credits**
COMM A235 or COMM A241	Small Group Communication or Public Speaking	3
EDEC A105	Introduction to the Field of Early Childhood Education	3
EDEC A106	Creativity and the Arts in Early Childhood	3
EDEC A107	Child Development and Learning	3
WRTG A111	Writing Across Contexts	3
	Credits	**15**
Spring		
EDEC A108	Health, Nutrition and Wellness for Children Birth-12	3
EDEC A241	Infant and Toddler Development	3
MATH A121 or MATH A151 or STAT A200	Applied College Algebra or College Algebra for Calculus or Elementary Statistics	3-4
GER Natural Science		3
GER Written Communication Skills		3
	Credits	**15-16**
Second Year		
Fall		
EDEC A206	Interdisciplinary Curriculum for Young Children	3
EDEC A210	Guiding Young Children	3
EDEC A242	Culturally Responsive Family Engagement	3
PSY A111 or PSY A150	Introduction to Psychology or Lifespan Development	3
GER Natural Sciences		3
GER Natural Sciences Lab		1
	Credits	**16**
Spring		
EDEC A292	Early Childhood Practicum Seminar	3
EDEC A295	Early Childhood Practicum	3
EDEC A303	Young Children in Inclusive Settings	3
HIST A132	History of the United States II	3
GER Fine Arts		3
	Credits	**15**
Third Year		
Fall		
EDEC A190	Selected Topics in Early Childhood	1-3

EDEC A320	Foundations of Literacy and Language Development	3
EDEC A321	Language, Reading and Culture	3
GER Alaska Native-Themed		3
GER Humanites		3
	Credits	**13-15**
Spring		
EDEC A407	Observation, Documentation, and Assessment of Young Children	3
EDEC A408	Children's Literature: Early Childhood Years	3
EDFN A300	Philosophical and Social Context of American Education	3
PSY A143	Death and Dying	3
GER Intercultural Fluency		3
	Credits	**15**
Fourth Year		
Fall		
EDEC A490	Selected Topics in Early Childhood Education	3
PSY A348	Infant and Early Childhood Mental Health	3
PSY A365	Child and Adolescent Development	3
Upper Division Elective		3
Upper Division Elective		3
	Credits	**15**
Spring		
EDEC A492	Early Childhood Professional Seminar	3
EDEC A495	Early Childhood Internship	9
Elective		2
	Credits	**14**
	Total Credits	**118-121**

Sample Plan - Early Childhood Education Professional Track

First Year		
Fall		**Credits**
COMM A235 or COMM A241	Small Group Communication or Public Speaking	3
EDEC A105	Introduction to the Field of Early Childhood Education	3
EDEC A106	Creativity and the Arts in Early Childhood	3
EDEC A107	Child Development and Learning	3
WRTG A111	Writing Across Contexts	3
	Credits	**15**
Spring		
EDEC A108	Health, Nutrition and Wellness for Children Birth-12	3
EDEC A241	Infant and Toddler Development	3
MATH A121 or MATH A151 or STAT A200	Applied College Algebra or College Algebra for Calculus or Elementary Statistics	3-4
GER Natural Sciences		3
GER Written Communication Skills		3
	Credits	**15-16**
Second Year		
Fall		
ANTH A200 or PSY A111 or PSY A150	Alaska Native Cultures or Introduction to Psychology or Lifespan Development	3
EDEC A206	Interdisciplinary Curriculum for Young Children	3
EDEC A210	Guiding Young Children	3
EDEC A242	Culturally Responsive Family Engagement	3
GER Natural Sciences		3
GER Natural Sciences Lab		1
	Credits	**16**
Spring		
EDEC A292	Early Childhood Practicum Seminar	3
EDEC A295	Early Childhood Practicum	3
EDEC A303	Young Children in Inclusive Settings	3
HIST A132	History of the United States II	3
GER Fine Arts		3
	Credits	**15**
Third Year		
Fall		
EDEC A320	Foundations of Literacy and Language Development	3
EDEC A321	Language, Reading and Culture	3
EDEC A190	Selected Topics in Early Childhood	3
GER Humanities		3
GER Intercultural Fluency		3
	Credits	**15**
Spring		
EDEC A407	Observation, Documentation, and Assessment of Young Children	3
EDEC A408	Children's Literature: Early Childhood Years	3
EDFN A300	Philosophical and Social Context of American Education	3
GER Alaska Native-Themed		3
Elective [1]		3
	Credits	**15**

Fourth Year		
Fall		
EDEC A490	Selected Topics in Early Childhood Education	3
Upper Division Program Elective [1]		3
Upper Division Program Elective [1]		3
Upper Division Program Elective [1]		3
Upper Division Program Elective [1]		3
	Credits	**15**
Spring		
EDEC A492	Early Childhood Professional Seminar	3
EDEC A495	Early Childhood Internship	9
Upper Division Elective		3
	Credits	**15**
	Total Credits	**121-122**

[1] *Requires advisor approval*

Post-Baccalaureate Certificate in Early Childhood Education Pre-K - Third Grade

The Post-baccalaureate (PBCT) in Early Childhood Education prepares PK-3 licensed teachers and other learning professionals to work in the public school system. The program prepares candidates with an existing baccalaureate degree to work with young children from birth to eight years.

Licensure and/or Certification

This program is designed to meet the educational requirements for professional licensure or certification in the State of Alaska. However, the program might not meet the educational requirements for professional licensure or certification in other states. Please see UAA's Licensure and Certification website (https://www.uaa.alaska.edu/academics/office-of-academic-affairs/licensure.cshtml/) for more information.

Admission Requirements

- Complete the Admission Requirements for Post-Baccalaureate Certificates (p. 45).
- Have a minimum cumulative grade point average of 3.00 for the baccalaureate degree.

Graduation Requirements

- Complete the General University Requirements for Post-Baccalaureate Certificates (p. 461). (https://catalog.uaa.alaska.edu/undergraduateprograms/postbaccalaureaterequirements/)
- Complete the following major requirements with a minimum grade of C:

Satisfaction of all major requirements must be demonstrated through coursework completed either before or after the award of the student's first baccalaureate degree.

Code	Title	Credits
Foundations		
EDEC A107	Child Development and Learning	3
EDFN A300	Philosophical and Social Context of American Education	3
Major		
EDEC A242	Culturally Responsive Family Engagement	3
EDEC A303	Young Children in Inclusive Settings	3
Literacy & Methods		
EDEC A320	Foundations of Literacy and Language Development	3
EDEC A321	Language, Reading and Culture	3
EDEC A403	Mathematics and Science in Early Childhood	3
EDEC A404	Literacy Methods for Young Children	3
Advanced Practicum, Internship and Seminar Requirements		
EDEC A492Y	Early Childhood Student Teaching 1 Seminar	3
EDEC A492Z	Early Childhood Capstone Seminar	3
EDEC A495Y	Early Childhood Student Teaching 1	3
EDEC A495Z	Early Childhood Student Teaching 2	9
Total		**42**

A minimum of 42 credits is required for the certificate.

Program Student Learning Outcomes

Students graduating with a Post-Baccalaureate Certificate in Early Childhood Education Pre-K - Third Grade will be able to:

- Create a healthy, respectful, supportive, and challenging learning environment based on knowledge of child development and learning to meet diverse children's needs.
- Create respectful, culturally responsive relationships that support and empower families, and involve all families in their children's development and learning.
- Use systematic observations, documentation, and other effective assessment strategies in a responsible way, in partnership with families and other professionals, to positively influence children's development and learning.
- Design effective approaches to teaching and learning, implement and evaluate experiences that promote positive development and learning for all children.

- Incorporate knowledge of content areas to create appropriate experiences for young children.
- Use ethical guidelines and other professional standards related to early childhood practice.
- Demonstrate knowledgeable, reflective, and critical perspectives on professional practice, making informed decisions that integrate knowledge from a variety of sources.

Occupational Endorsement Certificate in Infant and Toddler Development

The Occupational Endorsement Certificate in Infant and Toddler Development prepares students to work with infants and toddlers and their families in a variety of settings including childcare, family care settings, and Early Head Start programs.

Admission Requirements

- Complete the Admission Requirements for Occupational Endorsement Certificates (p. 46).

Graduation Requirements

- Complete the General University Requirements for Occupational Endorsement Certificates (p. 440).
- Complete the following major requirements:

Code	Title	Credits
EDEC A105	Introduction to the Field of Early Childhood Education	3
EDEC A106	Creativity and the Arts in Early Childhood	3
EDEC A107	Child Development and Learning	3
EDEC A108	Health, Nutrition and Wellness for Children Birth-12	3
EDEC A241	Infant and Toddler Development	3
EDEC A242	Culturally Responsive Family Engagement	3
Total		**18**

A minimum of 18 credits is required for the certificate.

Program Student Learning Outcomes

Students graduating with an Occupational Endorsement Certificate in Infant and Toddler Development will be able to:

- Create a healthy, respectful, supportive, and challenging learning environment based on knowledge of infant and toddler development.
- Create respectful, reciprocal relationships that support and empower families, and involve all families in their children's development and learning.
- Use systematic observations, documentation, and other effective assessment strategies in a responsible way, in partnership with families and other professionals, to positively influence infant and toddler's development and learning.
- Use ethical guidelines and other professional standards related to early childhood practice.
- Demonstrate knowledgeable, reflective, and critical perspectives on professional practice, making informed decisions that integrate knowledge from a variety of sources.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
EDEC A105	Introduction to the Field of Early Childhood Education	3
EDEC A106	Creativity and the Arts in Early Childhood	3
EDEC A107	Child Development and Learning	3
	Credits	**9**

Spring		
EDEC A108	Health, Nutrition and Wellness for Children Birth-12	3
EDEC A241	Infant and Toddler Development	3
EDEC A242	Culturally Responsive Family Engagement	3
	Credits	**9**
	Total Credits	**18**

College of Engineering

College of Engineering (https://www.uaa.alaska.edu/academics/college-of-engineering/)

Department of Civil Engineering (https://www.uaa.alaska.edu/academics/college-of-engineering/departments/civil-engineering/)
Engineering and Industry Building (EIB), Room 301
(907) 786-1900

Department of Computer Science and Engineering (https://www.uaa.alaska.edu/academics/college-of-engineering/departments/computer-science-and-engineering/)
Engineering and Computation Building (ECB), Room 308
(907) 786-1900

Department of Electrical Engineering (https://www.uaa.alaska.edu/academics/college-of-engineering/departments/electrical-engineering/)
Engineering and Industry Building (EIB), Room 409
(907) 786-1900

Department of Geomatics (https://www.uaa.alaska.edu/academics/college-of-engineering/departments/geomatics/)
Engineering and Computation Building (ECB), Room 302
(907) 786-1900

Department of Mechanical Engineering (https://www.uaa.alaska.edu/academics/college-of-engineering/departments/mechanical-engineering/)
Engineering and Computation Building (ECB), Room 301
(907) 786-1900

Department of Project Management (https://www.uaa.alaska.edu/academics/college-of-engineering/departments/project-management/)
Engineering and Industry Building (EIB), Room 301
(907) 786-1900

Bachelor of Science in Civil Engineering

The Bachelor of Science (BS) in Civil Engineering prepares students for a career in Civil Engineering and associated professional fields. Civil engineering is the design, construction, and maintenance of the built environment, including roads, bridges, buildings, harbors and other public works. The Civil Engineering program partners with local consulting firms, government agencies and non-profit organizations to offer students hands-on experience designing real-world projects that make a difference in our community.

The BS in Civil Engineering is accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org (https://www.abet.org/).

Licensure and/or Certification

Graduates of the BS in Civil Engineering gain four years of education credit toward obtaining a Professional Engineer (P.E.) license. It also fulfills the “Arctic Engineering” requirement for registration as a P.E. in Alaska as set forth in 12 AAC 36.110.

This program is designed to meet the educational requirements for professional licensure or certification in the State of Alaska. However, the program might not meet the educational requirements for professional licensure or certification in other states.
Please see UAA's Licensure and Certification website (https://www.uaa.alaska.edu/academics/office-of-academic-affairs/licensure.cshtml/) for more information.

Admission Requirements

- Complete the Admission Requirements for Baccalaureate Degrees (p. 46).

Special Considerations

- Students who intend to enroll in this degree of study are strongly encouraged to complete the following courses in high school with a minimum grade of C. Insufficient preparation may increase the number of semesters required to complete the degree.
  - Algebra - 2 years
  - Chemistry - 1 year
  - English - 3 years
  - Physics - 1 year
  - Trigonometry - 1/2 year
- Bachelor of Science in Civil Engineering students must meet with their faculty advisor at least once per semester to review their academic progress and future course plan.

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (p. 442).
  - Complete the General Education Requirements for Baccalaureate Degrees (p. 443).
  - For 3 credits of Tier 1 Quantitative Skills, choose MATH A251 or MATH A251F.
  - For 3 credits of Tier 2 Humanities, choose PHIL A305.
- Complete the following major requirements:

Code	Title	Credits
CE A201	Introduction to Civil Engineering [1]	1
CE A206	Civil Engineering 3D Modeling	1
CE A310 & A310L	Introduction to Geotechnical Engineering and Introduction to Geotechnical Engineering Lab [1]	4

CE A334 & A334L	Properties of Materials and Properties of Materials Laboratory [1]	3
CE A341	Environmental Engineering [1]	3
CE A351	Structural Analysis [1]	4
CE A403	Arctic Engineering	3
CE A420	Fundamentals of Transportation Engineering [1]	3
CE A437	Project Planning [1]	1
CE A438	Design of Civil Engineering Systems	3
CE A461	Hydraulic Analysis and Design	3
CHEM A105 & A105L	General Chemistry I and General Chemistry I Laboratory [1]	4
CHEM A106 & A106L	General Chemistry II and General Chemistry II Laboratory [1]	4
ENGR A151	Introduction to Engineering [1]	1
ES A106	Engineering Graphics	2
ES A209	Statics [1]	3
ES A210	Dynamics [1]	3
ES A261	Introduction to Engineering Computation [1]	3
ES A302	Engineering Data Analysis [1]	3
ES A331	Mechanics of Materials [1]	3
ES A341 & A341L	Fluid Mechanics and Fluid Mechanics Laboratory [1]	4
ESM A450	Economic Analysis and Operations [1]	3
GEO A155 & A155L	Introduction to Surveying and Introduction to Surveying Laboratory [1]	3
MATH A251	Calculus I [1]	4-6
or MATH A251F	F.A.T. Calculus I	
MATH A252	Calculus II [1]	4-6
or MATH A252F	F.A.T. Calculus II	
MATH A253	Calculus III [1]	4
MATH A302	Ordinary Differential Equations [1]	3
PHIL A305	Professional Ethics	3
PHYS A211 & A211L	General Physics I and General Physics I Laboratory [1]	4
Discipline-Specific Courses		
Complete 12 credits of discipline-specific courses from the following list in the disciplines of environmental, geotechnical, structural, transportation and water resources engineering. At least one course must be taken in four of the five disciplines.		12
Environmental Engineering		
CE A442	Environmental Engineering Design	
Geotechnical Engineering		
CE A410	Foundation Engineering	
Structural Engineering		
CE A432	Steel Design [2]	
CE A433	Reinforced Concrete Design	
Transportation Engineering		
CE A421	Design of Highways	
Water Resources Engineering		
CE A464	Hydrologic Analysis and Design	
Basic Science Elective		
Select one of the following:		3
BIOL/GEOL A178	Introduction to Oceanography	
BIOL A271	Principles of Ecology	
GEOL A111	Planet Earth	
GEOL A115	Dangerous Earth	
Technical Electives		
Complete 6 credits of technical elective courses from the following list. Graduate courses may not be applied to both a baccalaureate and master degree unless a student has been accepted into the Accelerated Masters program. Students are encouraged to take 6 credits from a single subdiscipline. [3]		6
Geotechnical Engineering		
CE A414	Soil Strength and Slope Stability	
CE A611	Geotechnical Earthquake Engineering	
CE A612	Advanced Foundation Design	
Structural Engineering		
CE A432	Steel Design [2]	
or CE A433	Reinforced Concrete Design	
CE A451	Advanced Structural Analysis	
CE A454	Timber Design	
CE A652	Advanced Steel Design	
Transportation Engineering		
CE A423	Traffic Engineering	
CE A424	Pavement Design	
CE A425	Highway Engineering	
Water Resources Engineering		
CE A462	Surface Water Dynamics	
CE A476	Coastal Engineering	
CE A479	Sediment Transport and Coastal Processes	
CE A663	Ground Water Dynamics	
Total		**108-112**

[1] *Must be completed with a minimum grade of C.*

[2] *Either CE A432 or CE A433 may be chosen as a technical elective if not applied to satisfy the requirements described above.*

[3] *Three credits of technical electives may be substituted for one discipline-specific course, provided the following criteria are met: all 9 credits of technical electives are completed in the same discipline,*

and the student has a minimum GPA of 3.00 prior to enrolling in the third technical elective.

A minimum of 129 credits is required for the degree, of which 39 credits must be upper-division.

Honors in Civil Engineering

The Bachelor of Science in Civil Engineering recognizes distinguished achievement by conferring programmatic honors in civil engineering. In order to receive honors in civil engineering, a student must meet the following requirements:

- Complete all requirements for a BS in Civil Engineering. A minimum of 30 credits applicable to the civil engineering degree must be completed at UAA;
- Be an active member for at least one year of both a national and an on-campus student chapter of a professional engineering society that addresses issues relevant to the civil engineering profession;
- Have a minimum GPA of 3.30 in courses applicable to the BS in Civil Engineering;
- Complete one of the following:
  - Complete an approved design or research project (other than projects completed in CE A438) prior to applying for graduation. Gain project approval through a written proposal submitted to the project advisor no later than the semester prior to applying for graduation. Present an oral presentation and written report of project results four weeks prior to graduation. The project proposal and final written report must be approved by the student's project advisor and acknowledged by the chair of the Department of Civil Engineering.
  - Document a minimum of eight weeks of work experience in an engineering or engineering-related position and pass the Fundamentals of Engineering Examination prior to applying for graduation.

Program Student Learning Outcomes

Students graduating with a Bachelor of Science in Civil Engineering will be able to:

- Identify, formulate, and solve complex civil engineering problems by applying principles of engineering, science, and mathematics;
- Apply civil engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as cold regions, global, cultural, social, environmental, and economic factors;
- Communicate effectively with a range of audiences;
- Recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts;
- Function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives;
- Develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions; and
- Acquire and apply new knowledge as needed, using appropriate learning strategies.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year

Fall		**Credits**
CHEM A105 & A105L	General Chemistry I and General Chemistry I Laboratory	4
ENGR A151	Introduction to Engineering	1
ES A106	Engineering Graphics	2
MATH A251 or MATH A251F	Calculus I [1] or F.A.T. Calculus I	4-6
WRTG A111	Writing Across Contexts	3

GER Oral Communication Skills		3
	Credits	**17-19**
Spring		
CHEM A106 & A106L	General Chemistry II and General Chemistry II Laboratory	4
ES A261	Introduction to Engineering Computation	3
GEO A155	Introduction to Surveying	2
MATH A252 or MATH A252F	Calculus II or F.A.T. Calculus II	4-6
PHYS A211 & A211L	General Physics I and General Physics I Laboratory	4
	Credits	**17-19**
Second Year		
Fall		
CE A201	Introduction to Civil Engineering	1
ES A209	Statics	3
MATH A253	Calculus III	4
PHYS A212 & A212L	General Physics II and General Physics II Laboratory	4
GER Written Communication Skills (200-level)		3
GER Social Sciences		3
	Credits	**18**
Spring		
CE A206	Civil Engineering 3D Modeling	1
ES A210	Dynamics	3
ES A302	Engineering Data Analysis	3
MATH A302	Ordinary Differential Equations	3
PHIL A305	Professional Ethics	3
Program Elective		3
	Credits	**16**
Third Year		
Fall		
CE A334 & A334L	Properties of Materials and Properties of Materials Laboratory	3
CE A341	Environmental Engineering	3
ES A331	Mechanics of Materials	3
ES A341 & A341L	Fluid Mechanics and Fluid Mechanics Laboratory	4
GER Social Sciences [2]		3
	Credits	**16**
Spring		
CE A310 & A310L	Introduction to Geotechnical Engineering and Introduction to Geotechnical Engineering Lab	4
CE A351	Structural Analysis	4
CE A420	Fundamentals of Transportation Engineering	3
ESM A450	Economic Analysis and Operations	3
GER Humanities [2]		3
	Credits	**17**
Fourth Year		
Fall		
CE A437	Project Planning	1
CE A461	Hydraulic Analysis and Design	3
Discipline-Specific course [3]		3
Discipline-Specific course [3]		3
GER Fine Arts		3
Upper Division Program Elective		3
	Credits	**16**
Spring		
CE A403	Arctic Engineering	3
CE A438	Design of Civil Engineering Systems	3
Discipline-Specific Course [3]		3
Discipline-Specific Course [3]		3
Upper Division Program Elective		3
	Credits	**15**
	Total Credits	**132-136**

[1] *MATH A251 or MATH A251F have prerequisites.*

[2] *Choose a course that also fulfills the Alaska Native-Themed GER or Intercultural Fluency GER.*

[3] *Students must take one course in four out of the following five categories: Environmental, Water Resources, Transportation, Geotechnical, and Structural. See the section* Graduation Requirements *(*https://catalog.uaa.alaska.edu/undergraduateprograms/coeng/civilengineering/bs-civilengineering/*): Discipline-Specific Courses for the list of approved courses.*

Bachelor of Arts in Computer Science

The Bachelor of Arts (BA) in Computer Science (CS) at the University of Alaska Anchorage teaches students the fundamental principles of computer science and topical issues in computing so they may pursue advanced degrees or enter the workplace as productive, competent software development or information technology professionals. The program seeks to further the profession of computer science through professional activities and public service within the local community and beyond. Faculty engage in and disseminate research to advance the development of computer science and provide innovative technological solutions to address the needs of modern society.

Admission Requirements

- Complete the Admission Requirements for Baccalaureate Degrees (p. 46).

Special Considerations

- Students who intend to enroll in this degree of study are strongly encouraged to complete the following content in high school with a grade of C or better: Trigonometry (1/2 year), Physics (1 year),

Algebra (2 years), Chemistry (1 year), and English (3 years). Insufficient preparation may increase the number of semesters required to complete the degree.

- A student who is unable to earn a minimum grade of C in any course offered by the College of Engineering may retake that course up to two additional times. A student who fails to earn a minimum grade of C on the second attempt will be required to meet with an academic advisor and a member of the College of Engineering professional advising staff to develop a plan for improvement of academic performance before continuing in the program. Failure to earn a minimum grade of C on the third attempt will result in removal from the program. Re-admittance requires a letter of appeal from the student with an explanation of any mitigating factors and how these factors have been addressed. Re-admittance is subject to approval by the department chair of the program.

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (p. 442).
- Complete the General Education Requirements for Baccalaureate Degrees (p. 443).
  - For 3 credits of Quantitative Skills GER, choose MATH A221 or MATH A251 or MATH A251F.
  - For 3 credits of Humanities GER, choose PHIL A305.
- All computer science majors must take a standardized test of knowledge of computer science approved by the CS faculty for the purpose of evaluating program effectiveness. There is no minimum score required for graduation. This test will normally be taken during the senior year.
- Complete the following major requirements with a minimum grade of C in all CSCE, MATH and STAT courses:

Code	Title	Credits
Core Courses		
CSCE A101	Introduction to Computer Science	3
CSCE A201	Computer Programming I	4
CSCE A211	Computer Programming II	4
CSCE/EE A241	Computer Hardware Concepts	4
CSCE A248	Computer Organization and Assembly Language Programming	3
CSCE A311	Data Structures and Algorithms	3
CSCE A321	Operating Systems	3
CSCE A331	Programming Language Concepts	3
CSCE A351	Automata, Algorithms and Complexity	3
CSCE A360	Database Systems	3
CSCE A365	Computer Networks	3
CSCE A401	Software Engineering	3
CSCE A465	Computer and Network Security	3
CSCE A470	Computer Science and Engineering Capstone Project	3
Required Support Courses		
ENGL A313	Professional Writing	3
or ENGL A414	Research Writing	
or ENGL A478	Public Science Writing	
MATH A221	Applied Calculus for Managerial and Social Sciences	3-6
or MATH A251	Calculus I	
or MATH A251F	F.A.T. Calculus I	
MATH A261	Introduction to Discrete Mathematics	3
PHIL A305	Professional Ethics	3
STAT A253	Applied Statistics for the Sciences	4
or STAT A307	Probability and Statistics	
Upper-division credits [1]		12
Total		**73-76**

[1] *Complete 12 additional upper-division credits in CSCE, MATH (excluding MATH A420 and MATH A495A) or STAT. Nine of these credits must be CSCE courses. A maximum of 3 credits of CSCE A395, a maximum of 3 credits of CSCE A495, and a maximum of 6 credits of CSCE A498 may be applied to degree requirements.*

A minimum of 120 credits is required for the degree, of which 39 credits must be upper-division.

Honors in Computer Science

The Bachelor of Arts in Computer Science recognizes distinguished achievement by conferring programmatic honors in Computer Science. In order to receive honors in Computer Science, a student must meet the following requirements:

- Meet the requirements for Graduation with Honors (p. 30);
- Meet the requirements for a Bachelor of Arts in Computer Science;
- Earn a minimum GPA of 3.50 in the major requirements;
- Show active participation in a computer science related organization such as a UAA club or community group. Membership in a national professional organization such as the Association for Computing Machinery (ACM) or the Institute of Electrical and Electronics Engineers (IEEE) is encouraged but insufficient to meet this requirement. To apply for honors, students must submit a written reflection to the computer science and engineering department chair by the graduation application deadline that explains how participation enhanced the student's learning experience in computer science.

Program Student Learning Outcomes

Students graduating with a Bachelor of Arts in Computer Science will be able to:

- Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.
- Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.

- Communicate effectively in a variety of professional contexts, including technical and non-technical audiences for business, end-user, client, and computing contexts.
- Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
- Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.
- Apply computer science theory and software development fundamentals to produce computing-based solutions.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
CSCE A101	Introduction to Computer Science	3
MATH A221 or MATH A251 or MATH A251F	Applied Calculus for Managerial and Social Sciences [1] or Calculus I or F.A.T. Calculus I	3-6
WRTG A111	Writing Across Contexts	3
GER Oral Communication Skills		3
Elective		3
	Credits	**15-18**
Spring		
CSCE A201	Computer Programming I	4
MATH A261	Introduction to Discrete Mathematics	3
GER Fine Arts [2]		3
GER Natural Sciences w/ Lab		4
GER Written Communication Skills (200-level)		3
	Credits	**17**
Second Year		
Fall		
CSCE A211	Computer Programming II	4
CSCE A241	Computer Hardware Concepts	4
GER Humanities [2]		3
GER Natural Sciences		3
Elective		3
	Credits	**17**
Spring		
CSCE A248	Computer Organization and Assembly Language Programming	3
CSCE A311	Data Structures and Algorithms	3
CSCE A360	Database Systems	3
ENGL A313 or ENGL A414 or ENGL A478	Professional Writing or Research Writing or Public Science Writing	3
STAT A253 or STAT A307	Applied Statistics for the Sciences or Probability and Statistics	4
	Credits	**16**
Third Year		
Fall		
CSCE A351	Automata, Algorithms and Complexity	3
CSCE A365	Computer Networks	3
GER Social Sciences		3
Elective		3
Upper Division Program Elective		3
	Credits	**15**

Spring		
CSCE A321	Operating Systems	3
CSCE A331	Programming Language Concepts	3
GER Social Sciences		3
Elective		3
Upper Division Program Elective		3
	Credits	**15**
Fourth Year		
Fall		
CSCE A401	Software Engineering	3
PHIL A305	Professional Ethics	3
Elective		3
Elective		3
Upper Division Program Elective		3
	Credits	**15**
Spring		
CSCE A465	Computer and Network Security	3
CSCE A470	Computer Science and Engineering Capstone Project	3
Elective		3
Upper Division Program Elective		3
	Credits	**12**
	Total Credits	**122-125**

[1] *MATH A221, MATH A251, and MATH A251F have prerequisites.*
[2] *Choose a course that also fulfills the Alaska Native-Themed GER and/or the Intercultural Fluency GER.*

Bachelor of Science in Computer Science

The Bachelor of Science (BS) in Computer Science (CS) at the University of Alaska Anchorage teaches students the fundamental principles of computer science and topical issues in computing so they may pursue advanced degrees or enter the workplace as productive, competent software development or information technology professionals. The program seeks to further the profession of computer science through professional activities and public service within the local community and beyond. Faculty engage in and disseminate research to advance the development of computer science and provide innovative technological solutions to address the needs of modern society.

The BS in Computer Science is accredited by the Computing Accreditation Commission of ABET, https://www.abet.org (https://www.abet.org/).

Admission Requirements

Complete the Admission Requirements for Baccalaureate Degrees (p. 46).

Special Considerations

- Students who intend to enroll in this degree of study are strongly encouraged to complete the following content in high school with a grade of C or better: Trigonometry (1/2 year), Physics (1 year), Algebra (2 years), Chemistry (1 year), and English (3 years). Insufficient preparation may increase the number of semesters required to complete the degree.
- A student who is unable to earn a minimum grade of C in any course offered by the College of Engineering may retake that course up to two additional times. A student who fails to earn a minimum grade of C on the second attempt will be required to meet with an academic advisor and a member of the College of Engineering professional advising staff to develop a plan for improvement of academic performance before continuing in the program. Failure to earn a minimum grade of C on the third attempt will result in removal from the program. Re-admittance requires a letter of appeal from the student with an explanation of any mitigating factors and how these factors have been addressed. Re-admittance is subject to approval by the department chair of the program.

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (p. 442).
- Complete the General Education Requirements for Baccalaureate Degrees (p. 443).
  - The 3 credit Quantitative Skills GER will be met and exceeded by the following degree requirements:MATH A251, MATH A251F, MATH A252, or MATH A252F.
  - For 3 credits of Humanities GER, choose PHIL A305.
  - The 7 credit Natural Science GER will be met and exceeded by the following degree requirements: (PHYS A123 & PHYS A123L) OR (PHYS A211 & PHYS A211L), and (PHYS A124 & PHYS A124L) OR (PHYS A212 & PHYS A212L).
- All computer science majors must take a standardized test of knowledge of computer science approved by the CS faculty for the purpose of evaluating program effectiveness. There is no minimum score required for graduation. This test will normally be taken during the senior year.
- Complete the following major requirements with a minimum grade of C in all CSCE, MATH and STAT courses.

Code	Title	Credits
Core Courses		
CSCE A101	Introduction to Computer Science	3
CSCE A201	Computer Programming I	4
CSCE A211	Computer Programming II	4
CSCE/EE A241	Computer Hardware Concepts	4
CSCE A248	Computer Organization and Assembly Language Programming	3
CSCE A311	Data Structures and Algorithms	3
CSCE A321	Operating Systems	3
CSCE A331	Programming Language Concepts	3

CSCE A351	Automata, Algorithms and Complexity	3
CSCE A360	Database Systems	3
CSCE A365	Computer Networks	3
CSCE A401	Software Engineering	3
CSCE A465	Computer and Network Security	3
CSCE A470	Computer Science and Engineering Capstone Project	3
Required Support Courses		
MATH A251	Calculus I	4-6
or MATH A251F	F.A.T. Calculus I	
MATH A252	Calculus II	4-6
or MATH A252F	F.A.T. Calculus II	
MATH A261	Introduction to Discrete Mathematics	3
PHYS A123 & A123L	College Physics I and College Physics I Laboratory	4
or PHYS A211 & A211L	General Physics I and General Physics I Laboratory	
PHYS A124 & A124L	College Physics II and College Physics II Laboratory	4
or PHYS A212 & A212L	General Physics II and General Physics II Laboratory	
STAT A307	Probability and Statistics	4
ENGL A313	Professional Writing	3
or ENGL A414	Research Writing	
or ENGL A478	Public Science Writing	
PHIL A305	Professional Ethics	3
Upper-Division Courses [1]		12
Total		**86-90**

[1] *Complete an additional 12 upper-division credits in CSCE, MATH (excluding MATH A420 and MATH A495A) or STAT. Nine of these credits must be in CSCE courses. A maximum of 3 credits of CSCE A395, a maximum of 3 credits of CSCE A495, and maximum of 6 credits of CSCE A498 may be applied to degree requirements.*

A minimum of 120 credits is required for the degree, of which 39 credits must be upper-division.

Honors in Computer Science

The Bachelor of Science in Computer Science recognizes distinguished achievement by conferring programmatic honors in computer science. In order to receive honors in computer science, a student must meet the following requirements:

- Meet the requirements for Graduation with Honors (p. 30);
- Meet the requirements for a Bachelor of Science in Computer Science;
- Earn a minimum GPA of 3.50 in the major requirements;
- Show active participation in a computer science related organization such as a UAA club or community group. Membership in a national professional organization such as the Association for Computing Machinery (ACM) or the Institute of Electrical and Electronics Engineers (IEEE) is encouraged but insufficient to meet this requirement. To apply for honors, students must submit a written reflection to the computer science and engineering department chair by the graduation application deadline that explains how participation enhanced the student's learning experience in computer science.

Program Student Learning Outcomes

Students graduating with a Bachelor of Science in Computer Science will be able to:

- Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.
- Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.
- Communicate effectively in a variety of professional contexts, including technical and non-technical audiences for business, end-user, client, and computing contexts.
- Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
- Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.
- Apply computer science theory and software development fundamentals to produce computing-based solutions.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.

- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
CSCE A101	Introduction to Computer Science	3
MATH A251 or MATH A251F	Calculus I or F.A.T. Calculus I	4-6
WRTG A111	Writing Across Contexts	3
GER Fine Arts [1]		3
GER Oral Communication Skills		3
	Credits	**16-18**
Spring		
CSCE A201	Computer Programming I	4
MATH A252 or MATH A252F	Calculus II or F.A.T. Calculus II	4-6
GER Social Sciences [1]		3
GER Written Communication Skills (200-level)		3
	Credits	**14-16**
Second Year		
Fall		
CSCE A211	Computer Programming II	4
CSCE A241 or EE A241	Computer Hardware Concepts or Computer Hardware Concepts	4
MATH A261	Introduction to Discrete Mathematics	3
PHYS A123 & A123L	College Physics I and College Physics I Laboratory	4
	Credits	**15**
Spring		
CSCE A248	Computer Organization and Assembly Language Programming	3
CSCE A311	Data Structures and Algorithms	3
CSCE A360	Database Systems	3
PHYS A124 & A124L	College Physics II and College Physics II Laboratory	4
	Credits	**13**
Third Year		
Fall		
CSCE A351	Automata, Algorithms and Complexity	3
CSCE A365	Computer Networks	3
STAT A307	Probability and Statistics	4
GER Social Sciences		3
Upper Division Program Elective: CSCE		3
	Credits	**16**
Spring		
CSCE A321	Operating Systems	3
CSCE A331	Programming Language Concepts	3
ENGL A313 or ENGL A414 or ENGL A478	Professional Writing or Research Writing or Public Science Writing	3
Elective		3
Upper Division Program Elective: CSCE		3
	Credits	**15**
Fourth Year		
Fall		
CSCE A401	Software Engineering	3
GER Humanities		3
Elective		3
Elective		3
Upper Division Program Elective: CSCE		3
	Credits	**15**
Spring		
CSCE A465	Computer and Network Security	3
CSCE A470	Computer Science and Engineering Capstone Project	3
PHIL A305	Professional Ethics	3
Elective		3
Elective (if needed)		1
Upper Division Program Elective: CSCE, MATH, or STAT		3
	Credits	**16**
	Total Credits	**120-124**

[1] *Choose a course that also fulfills the Alaska Native-Themed GER or Intercultural Fluency GER.*

Minor in Computer Science

Students majoring in another subject who wish to minor in computer science must complete the following requirements:

Code	Title	Credits
CSCE A101 or ES A261	Introduction to Computer Science Introduction to Engineering Computation	3
CSCE A201	Computer Programming I	4
CSCE A211	Computer Programming II	4
CSCE A311	Data Structures and Algorithms	3
Upper-division CSCE elective		3

CSCE elective (may be lower-division)	3
Total	**20**

A minimum of 20 credits is required for the minor.

Bachelor of Science in Computer Systems Engineering

The Bachelor of Science (BS) in Computer Systems Engineering program at the University of Alaska Anchorage teaches students the fundamental principles of computer systems engineering and topical issues in computing so they may pursue advanced degrees or enter the workplace as productive, competent engineers. The program seeks to further the profession of computer systems engineering through professional activities and public service within the local community and beyond. Faculty engage in and disseminate research to advance the development of computer systems engineering and provide innovative technological solutions to address the needs of modern society.

The BS in Computer Systems Engineering is accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org (https://www.abet.org/).

Admission Requirements

- Complete the Admission Requirements for Baccalaureate Degrees (p. 46).

Special Considerations

- Students who intend to enroll in this program of study are strongly encouraged to complete the following content in high school with a minimum grade of C: Trigonometry (1/2 year), Physics (1 year), Algebra (2 years), Chemistry (1 year), and English (3 years). Insufficient preparation may increase the number of semesters required to complete the degree.
- A student who is unable to earn a minimum grade of C in any course offered by the college may retake that course up to two additional times. A student who fails to earn a minimum grade of C on the second attempt will be required to meet with an academic advisor and a member of the College of Engineering professional advising staff to develop a plan for improvement of academic performance before continuing in the program. Failure to earn a minimum grade of C on the third attempt will result in removal from the program. Re-admittance requires a letter of appeal from the student with an explanation of any mitigating factors and how these factors have been addressed. Re-admittance is subject to approval by the department chair of the program.

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (p. 442).
- Complete the General Education Requirements for Baccalaureate Degrees (p. 443).
  - The Quantitative Skills GER will be met and exceeded by the following degree requirements: MATH A251 or MATH A251F, MATH A252 or MATH A252F, and MATH A253.
  - The Natural Sciences GER will be met and exceeded by the following degree requirements: PHYS A211, PHYS A211L, PHYS A212, and PHYS A212L.
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
Core Courses		
CSCE A101	Introduction to Computer Science	3
CSCE A201	Computer Programming I	4
CSCE A211	Computer Programming II	4
CSCE/EE A241	Computer Hardware Concepts	4
CSCE A248	Computer Organization and Assembly Language Programming	3
CSCE A311	Data Structures and Algorithms	3
CSCE A321	Operating Systems	3
CSCE A342	Digital Circuits Design	3
CSCE A365	Computer Networks	3
CSCE A448	Computer Architecture	3
CSCE A465	Computer and Network Security	3
CSCE A470	Computer Science and Engineering Capstone Project	3
EE A203 & A203L	Fundamentals of Electrical Engineering I and Fundamentals of Electrical Engineering I Laboratory	4
EE A333 & A333L	Electronic Devices and Electronic Devices Laboratory	4
EE A353	Circuit Theory	3
ESM A450	Economic Analysis and Operations	3
MATH A251	Calculus I	4-6
or MATH A251F	F.A.T. Calculus I	
MATH A252	Calculus II	4-6
or MATH A252F	F.A.T. Calculus II	
MATH A253	Calculus III	4
MATH A261	Introduction to Discrete Mathematics	3
MATH A302	Ordinary Differential Equations	3
PHIL A305	Professional Ethics	3
PHYS A211 & A211L	General Physics I and General Physics I Laboratory	4
PHYS A212 & A212L	General Physics II and General Physics II Laboratory	4
STAT A307	Probability and Statistics	4
Advanced Engineering Electives		
Complete 12 credits from the following: [1]		12
Any upper-division elective with a CSCE prefix		
EE/PHYS A314	Electromagnetics	
EE/PHYS A324	Electromagnetics II	
EE A324L	Electromagnetics Laboratory II	
EE A354	Engineering Signal Analysis	

EE A441	Integrated Circuit Design	
EE A451	Digital Signal Processing	
EE A462	Communication Systems	
EE A465	Telecommunications	
Total		**98-102**

[1] *At least 6 credits must be from CSCE courses. A maximum of 3 credits from CSCE A395, a maximum of 3 credits from CSCE A495 and a maximum of 6 credits from CSCE A498 may be applied toward this degree requirement. Other relevant courses may be accepted by approved petition.*

A minimum of 120 credits is required for the degree, of which 39 credits must be upper-division.

Honors in Computer Systems Engineering

The Bachelor of Science in Computer Systems Engineering recognizes distinguished achievements by conferring programmatic honors in computer systems engineering. In order to receive honors in computer systems engineering, a student must meet the following requirements:

- Meet the requirements for Graduation with Honors;
- Meet the requirements for a Bachelor of Science in Computer Systems Engineering;
- Earn a minimum GPA of 3.50 in the courses required for the major;
- Show active participation in a computer science related organization such as a UAA club or community group. Membership in a national professional organization such as the Association for Computing Machinery (ACM) or the Institute of Electrical and Electronics Engineers (IEEE) is encouraged but insufficient to meet this requirement. To apply for honors, students must submit a written reflection to the computer science and engineering department chair by the graduation application deadline that explains how participation enhanced the student's learning experience in computer science.

Program Student Learning Outcomes

Students graduating with a Bachelor of Science in Computer Systems Engineering will be able to:

- Identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
- Apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
- Communicate effectively with a range of audiences, including technical and non-technical audiences for business, end-user, client, and computing contexts.
- Recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
- Function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
- Develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
- Acquire and apply new knowledge as needed, using appropriate learning strategies.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year

Fall		**Credits**
CSCE A101	Introduction to Computer Science	3
MATH A251 or MATH A251F	Calculus I or F.A.T. Calculus I	4-6
WRTG A111	Writing Across Contexts	3
GER Oral Communication Skills		3
	Credits	**13-15**

Spring		
CSCE A201	Computer Programming I	4
MATH A252 or MATH A252F	Calculus II or F.A.T. Calculus II	4-6
MATH A261	Introduction to Discrete Mathematics	3
GER Written Communication Skills (200-level)		3
	Credits	**14-16**
Second Year		
Fall		
CSCE A211	Computer Programming II	4
CSCE A241	Computer Hardware Concepts	4
MATH A253	Calculus III	4
PHYS A211 & A211L	General Physics I and General Physics I Laboratory	4
	Credits	**16**
Spring		
CSCE A248	Computer Organization and Assembly Language Programming	3
CSCE A311	Data Structures and Algorithms	3
PHYS A212 & A212L	General Physics II and General Physics II Laboratory	4
STAT A307	Probability and Statistics	4
GER Social Sciences		3
	Credits	**17**
Third Year		
Fall		
CSCE A342	Digital Circuits Design	3
EE A203 & A203L	Fundamentals of Electrical Engineering I and Fundamentals of Electrical Engineering I Laboratory	4
MATH A302	Ordinary Differential Equations	3
GER Humanities [2]		3
GER Social Sciences		3
	Credits	**16**
Spring		
CSCE A321	Operating Systems	3
CSCE A448	Computer Architecture	3
EE A353	Circuit Theory	3
ESM A450	Economic Analysis and Operations	3
Upper Division Program Elective		3
	Credits	**15**
Fourth Year		
Fall		
CSCE A365	Computer Networks	3
PHIL A305	Professional Ethics	3
GER Fine Arts		3
Upper Division Program Elective		3
Upper Division Program Elective		3
	Credits	**15**
Spring		
CSCE A465	Computer and Network Security	3
CSCE A470	Computer Science and Engineering Capstone Project	3
EE A333 & A333L	Electronic Devices and Electronic Devices Laboratory	4
Upper Division Program Elective		3
	Credits	**13**
	Total Credits	**119-123**

[1] *MATH A251 or MATH A251F have prerequisites.*
[2] *Choose a course that also fulfills the Alaska Native-Themed GER.*

Minor in Computer Systems Engineering

Students majoring in another subject who wish to minor in computer systems engineering must complete the following requirements.

Code	Title	Credits
CSCE A201	Computer Programming I	4
CSCE A211	Computer Programming II	4
CSCE/EE A241	Computer Hardware Concepts	4
CSCE A248	Computer Organization and Assembly Language Programming	3
CSCE A311	Data Structures and Algorithms	3
Upper-division CSCE elective(s)		3
Total		**21**

A total of 21 credits are required for the minor.

Bachelor of Science in Electrical Engineering

The Bachelor of Science (BS) in Electrical Engineering prepares students for a career in electrical engineering and associated professional fields. The program provides a state-of-the-art education, research experience and project-based learning from a broad range of focus areas as well as numerous opportunities to work in interdisciplinary fields. The undergraduate electrical engineering degree provides opportunities for employment with various industries including power systems, renewable energy, communications, robotics, or any other entity requiring advanced data processing or system design.

The BS in Electrical Engineering is accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org (https://www.abet.org/).

Licensure and/or Certification

Graduates of the Bachelor of Science in Electrical Engineering gain four years of education credit toward obtaining a Professional Engineer license in Alaska.

This program is designed to meet the educational requirements for professional licensure or certification in the State of Alaska. However, the program might not meet the educational requirements for professional licensure or certification in other states.
Please see UAA's Licensure and Certification website (https://www.uaa.alaska.edu/academics/office-of-academic-affairs/licensure.cshtml/) for more information.

Admission Requirements

- Complete the Admission Requirements for Baccalaureate Degrees. (p. 46)

Special Considerations

- BS in Electrical Engineering students must meet with their faculty advisor at least once per semester to review their academic progress and future course plan.
- Students who intend to enroll in this degree of study are strongly encouraged to complete the following content in high school with a minimum grade of C: Trigonometry (1/2 year), Physics (1 year), Algebra (2 years), Chemistry (1 year), and English (3 years). Insufficient preparation may increase the number of semesters required to complete the degree.

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees. (p. 442)
- Complete the General Education Requirements for Baccalaureate Degrees. (p. 443)
  - The 3 credit Tier 1 Quantitative Skills GER will be met and exceeded by the following degree requirements: MATH A251 or MATH A251F, MATH A252 or MATH A252F, and MATH A253.
  - The 7 credit Natural Science GER will be met and exceeded by the following degree requirements: CHEM A105, CHEM A105L, PHYS A211, PHYS A211L, PHYS A212, and PHYS A212L.
  - For 3 credits of Tier 2 Humanities GER choose PHIL A305.
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
Core Courses		
CHEM A105 & A105L	General Chemistry I and General Chemistry I Laboratory	4
CSCE A201	Computer Programming I	3-4
or CSE A205	Introduction to C Programming for Engineers	
CSCE A248	Computer Organization and Assembly Language Programming	3
EE A203 & A203L	Fundamentals of Electrical Engineering I and Fundamentals of Electrical Engineering I Laboratory	4
EE/CSCE A241	Computer Hardware Concepts	4
EE A307	Introduction to Power Systems	3
EE/ME A308	Instrumentation and Measurement	3
EE/PHYS A314	Electromagnetics	3
EE/PHYS A324	Electromagnetics II	3
EE A324L	Electromagnetics Laboratory II	1
EE A333 & A333L	Electronic Devices and Electronic Devices Laboratory	4
EE A353 & A353L	Circuit Theory and Circuit Theory Lab	4
EE A354	Engineering Signal Analysis	3
EE A438	Design of Electrical Engineering Systems	3
EE/ME A471	Automatic Control	3
EE A451	Digital Signal Processing	3
ENGR A151	Introduction to Engineering	1
ES A209	Statics	3
ES A210	Dynamics	3
ES A261	Introduction to Engineering Computation	3
ES A302	Engineering Data Analysis	3
ESM A450	Economic Analysis and Operations	3
MATH A251	Calculus I	4-6
or MATH A251F	F.A.T. Calculus I	
MATH A252	Calculus II	4-6
or MATH A252F	F.A.T. Calculus II	
MATH A253	Calculus III	4
MATH A302	Ordinary Differential Equations	3
PHIL A305	Professional Ethics	3
PHYS A211 & A211L	General Physics I and General Physics I Laboratory	4
PHYS A212 & A212L	General Physics II and General Physics II Laboratory	4
Advanced Mathematics Electives		
Select 3 credits from the following:		3
MATH A314	Linear Algebra	
MATH A410	Introduction to Complex Analysis	
MATH A424	Advanced Engineering Mathematics: Linear Algebra and Numerical Analysis	
MATH A425	Advanced Engineering Mathematics: Partial Differential Equations and Complex Variables	
MATH A426	Numerical Analysis	
MATH A432	Partial Differential Equations	
Advanced Engineering Electives		

Complete 12 credits, including at least 6 credits of EE courses, from the following:		12
CSCE A365	Computer Networks	
CSCE A465	Computer and Network Security	
EE A407	Power Distribution	
EE A417	Green Electrical Energy Systems	
EE A441	Integrated Circuit Design	
EE A447	Power Electronics	
EE A458	Antenna Theory	
EE A462	Communication Systems	
EE A465	Telecommunications	
EE A472	Advanced Linear Systems	
EE A495	Electrical Engineering Internship	
PHYS A303	Modern Physics	
Total		**108-113**

A minimum of 129 credits is required for the degree, of which 39 must be upper-division.

Honors in Electrical Engineering

The Bachelor of Science in Electrical Engineering recognizes distinguished achievement by conferring programmatic honors in electrical engineering. In order to receive honors in electrical engineering, a student must meet the following requirements:

- Complete all program requirements;
- Be an active member for at least one year of both a national and an on-campus student chapter of a professional engineering society that addresses issues relevant to the engineering profession;
- Earn a minimum GPA of 3.50 in the courses required for the major;
- Gain approval for, complete and present a design/research project prior to applying for graduation. The project proposal, presentation and final written report must be approved by the program faculty.

Program Student Learning Outcomes

Students graduating with a Bachelor of Science in Electrical Engineering will have:

- An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics;
- An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors;
- An ability to communicate effectively with a range of audiences;
- An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts;
- An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives;
- An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions;
- An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

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- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year

Fall		**Credits**
CHEM A105 & A105L	General Chemistry I and General Chemistry I Laboratory	4
ENGR A151	Introduction to Engineering	1
MATH A251	Calculus I	4
WRTG A111	Writing Across Contexts	3

GER Social Sciences		3
	Credits	**15**
Spring		
ES A261	Introduction to Engineering Computation	3
MATH A252	Calculus II	4
WRTG A211 or WRTG A212 or WRTG A213	Writing and the Humanities or Writing and the Professions or Writing and the Sciences	3
GER Oral Communication Skills		3
GER Social Sciences, Alaska Native-Themed or Diversity & Inclusion		3
	Credits	**16**
Second Year		
Fall		
CSCE A201	Computer Programming I	4
EE A203 & A203L	Fundamentals of Electrical Engineering I and Fundamentals of Electrical Engineering I Laboratory	4
MATH A253	Calculus III	4
PHYS A211 & A211L	General Physics I and General Physics I Laboratory	4
	Credits	**16**
Spring		
EE A241	Computer Hardware Concepts	4
EE A333 & A333L	Electronic Devices and Electronic Devices Laboratory	4
EE A353 & A353L	Circuit Theory and Circuit Theory Lab	4
MATH A302	Ordinary Differential Equations	3
PHYS A212 & A212L	General Physics II and General Physics II Laboratory	4
	Credits	**19**
Third Year		
Fall		
ES A209	Statics	3
ES A302	Engineering Data Analysis	3
EE A307	Introduction to Power Systems	3
EE A314	Electromagnetics	3
EE A354	Engineering Signal Analysis	3
GER Humanities, Alaska Native-Themed or Diversity & Inclusion		3
	Credits	**18**
Spring		
CSCE A248	Computer Organization and Assembly Language Programming	3
ES A210	Dynamics	3
EE A308	Instrumentation and Measurement	3
EE A324 & A324L	Electromagnetics II and Electromagnetics Laboratory II	4
EE A451	Digital Signal Processing	3
	Credits	**16**
Fourth Year		
Fall		
EE A471	Automatic Control	3
ESM A450	Economic Analysis and Operations	3
Upper Division Elective (MATH)		3
Upper Division Program Elective		3
Upper Division Program Elective		3
	Credits	**15**
Spring		
EE A438	Design of Electrical Engineering Systems	3
PHIL A305	Professional Ethics	3
GER Fine Arts		3
Upper Division Program Elective		3
Upper Division Program Elective		3
	Credits	**15**
	Total Credits	**130**

Minor in Electrical Engineering

Students majoring in another subject who wish to minor in electrical engineering must complete the following requirements.

Code	Title	Credits
A minimum of 18 credits must be selected from:		18
EE A203	Fundamentals of Electrical Engineering I [1]	
EE/CSCE A241	Computer Hardware Concepts	
EE A307	Introduction to Power Systems	
EE/ME A308	Instrumentation and Measurement	
EE/PHYS A314	Electromagnetics [1]	
EE/PHYS A324	Electromagnetics II	
EE A324L	Electromagnetics Laboratory II [1]	
EE A333 & A333L	Electronic Devices and Electronic Devices Laboratory [1]	
EE A353	Circuit Theory [1]	
EE A407	Power Distribution	
EE A441	Integrated Circuit Design	
EE A451	Digital Signal Processing	
EE A458	Antenna Theory	
EE A462	Communication Systems	
EE A465	Telecommunications [1]	
EE/ME A471	Automatic Control	
Total		**18**

[1] *Recommended set of courses for the minor.*

A total of 18 credits is required for the minor.

Minor in Geographic Information Systems (GIS)

Students majoring in another subject who wish to minor in geographic information systems must complete the following courses:

Code	Title	Credits
GIS A101 & A101L	Introduction to Geographic Information Systems and Introduction to Geographic Information Systems Lab	3
GIS A201	Intermediate Geographic Information Systems	3
Complete 6-12 credits from the following:		6-12
CSCE A101	Introduction to Computer Science	
GEO A490	Selected Advanced Topics in Geomatics	
GIS A301	Web GIS	
GIS A351	Remote Sensing	
GIS A458	Spatial Data Management	
GIS A466	Spatial Analysis	
GIS A467	Image Analysis	
Complete any remaining credits from the following:		0-6
ANTH A101	Introduction to Anthropology	
ANTH A211	Archaeology	
ANTH A480	Analytical Techniques in Archaeology and Bioanthropology	
BIOL/GEOL A178	Introduction to Oceanography	
BIOL A179	Introduction to Oceanography Laboratory	
BIOL A473	Conservation Biology	
ENVI A211	Environmental Science: Systems and Processes	
GEOG A111	Discovering Alaska and Earth's Physical Geography: From Weather to Glaciers	
GEOG A475	Geospatial and Cartographic Techniques for the Sciences	
GEOL A350	Geomorphology	
GEOL A480	Geologic Field Methods	
JUST A201	Data Analysis in Criminology and Criminal Justice	
SOC A462	Social Science Statistics	

A minimum of 18 credits is required for the minor.

Occupational Endorsement Certificate in Geographic Information Systems

The Occupational Endorsement Certificate (OEC) in Geographic Information Systems prepares students for understanding the fundamentals of geospatial science and mastering practical skills required in the field of geospatial industry.

The OEC in Geographic Information Systems is recommended for students who come in at a mathematics placement level equal to or exceeding MATH A152 Trigonometry. Students who do not meet this level will have to take additional courses to meet the prerequisites for this OEC. This may require additional semesters to completion.

Admission Requirements

- Complete the Admission Requirements for Occupational Endorsement Certificates (p. 46).

Graduation Requirements

- Complete the General University Requirements for Occupational Endorsement Certificates (p. 440).
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
CSCE A101	Introduction to Computer Science	3
GIS A101 & A101L	Introduction to Geographic Information Systems and Introduction to Geographic Information Systems Lab	3
GIS A201	Intermediate Geographic Information Systems	3
GIS A351	Remote Sensing	3
GIS A458	Spatial Data Management	3
GIS A467	Image Analysis	3
Total		**18**

A minimum of 18 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with an Occupational Endorsement Certificate in Geographic Information Systems will be able to:

- Effectively manage databases and visualize results of geospatial analysis
- Apply programming skills in order to advance analysis with GIS
- Address planning, decision-making, and operational needs with geospatial skills

Associate of Applied Science in Geomatics

The Associate of Applied Science (AAS) in Geomatics prepares students for technician-level employment as land survey or mapping technicians. Those working as survey technicians frequently work outdoors, travel to various job locations, and enjoy an independent lifestyle. Mapping technicians work with the latest cartographic techniques and equipment and easily transfer skills learned in geomatics courses to other disciplines.

The program is based on the curriculum used in the Bachelor of Science (BS) in Geomatics and transfers credit for students interested in pursuing professional licensing as registered land surveyors.

Admission Requirements

- Complete the Admission Requirements for Associate Degr (p. 46)ees (p. 46).

Graduation Requirements

- Complete the General University Requirements for Associate Degrees (p. 441).
- Complete the General Education Requirements for Associate of Applied Science Degrees (p. 441).
  - For the Quantitative Skills requirement, choose (MATH A151 and MATH A152) or MATH A155.
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
GEO A146	Geomatics Computations	3
GEO A156 & A156L	Geospatial Measurement I and Geospatial Measurement I Laboratory	3
GEO A256 & A256L	Engineering Surveying and Engineering Surveying Laboratory	3
GEO A266 & A266L	Geospatial Measurement II and Geospatial Measurement II Laboratory	3
GEO A267	Boundary Law I	3
GIS A101 & A101L	Introduction to Geographic Information Systems and Introduction to Geographic Information Systems Lab	3
GIS A201	Intermediate Geographic Information Systems	3
MATH A151 & MATH A152	College Algebra for Calculus and Trigonometry	5-7
or MATH A155	Precalculus	
Complete 7 to 8 credits of natural sciences, including at least one laboratory:		7-8
ASTR A103 & A103L	Solar System Astronomy and Solar System Astronomy Laboratory	
BIOL A102 & BIOL A103	Introductory Biology and Introductory Biology Laboratory	
BIOL A178	Introduction to Oceanography	
or GEOL A178	Introduction to Oceanography	
BIOL A179	Introduction to Oceanography Laboratory	
CHEM A105 & A105L	General Chemistry I and General Chemistry I Laboratory	
ENVI A211	Environmental Science: Systems and Processes	
GEOG A111	Discovering Alaska and Earth's Physical Geography: From Weather to Glaciers	
GEOL A111 & A111L	Planet Earth and Planet Earth Laboratory	
GEOL A115 & A115L	Dangerous Earth and Dangerous Earth Laboratory	
PHYS A123 & A123L	College Physics I and College Physics I Laboratory	
or PHYS A211 & A211L	General Physics I and General Physics I Laboratory	
PHYS A124 & A124L	College Physics II and College Physics II Laboratory	
or PHYS A212 & A212L	General Physics II and General Physics II Laboratory	
Total		**33-36**

A minimum of 60 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with an Associate of Applied Science in Geomatics will be able to:

- Operate industry standard field surveying equipment,
- Keep surveying records,
- Perform basic surveying computations,
- Produce surveying drawings,
- Apply knowledge of basic boundary law in the field, and
- Utilize basic geographic information systems in an engineering context.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student’s plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the

rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
GEO A146	Geomatics Computations	3
GEO A156 & A156L	Geospatial Measurement I and Geospatial Measurement I Laboratory	3
GIS A101 & A101L	Introduction to Geographic Information Systems and Introduction to Geographic Information Systems Lab	3
MATH A151	College Algebra for Calculus	4
WRTG A111	Writing Across Contexts	3
	Credits	**16**
Spring		
KIN A112	First Aid and CPR for Professionals	1
MATH A152	Trigonometry	3
GER Written Communication Skills (200-level)		3
Elective		3
Elective		3
	Credits	**13**
Second Year		
Fall		
GEO A256 & A256L	Engineering Surveying and Engineering Surveying Laboratory	3
GEO A266 & A266L	Geospatial Measurement II and Geospatial Measurement II Laboratory	3
GER Oral Communication Skills		3
Program Elective (w/ Lab)		4
Elective		3
	Credits	**16**
Spring		
GEO A267	Boundary Law I	3
GIS A201	Intermediate Geographic Information Systems	3
Program Elective		3
Elective		3
Elective		3
	Credits	**15**
	Total Credits	**60**

Bachelor of Science in Geomatics

The Bachelor of Science (BS) in Geomatics prepares students for a career in surveying and mapping, Geographic Information Systems (GIS), remote sensing, and related professional fields. Geomatics integrates disciplines of land surveying and mapping, geodesy, hydrography, remote sensing, photogrammetry, LiDAR/point clouds, and GIS. The Geomatics program is the only program statewide to provide the level of education required by the State of Alaska in obtaining professional land surveyor licenses.

The Bachelor of Science in Geomatics is accredited by the Applied and Natural Sciences Accreditation Commission of ABET (https://www.abet.org).

Licensure and/or Certification

Graduates of the BS in Geomatics gain four years of education credit toward obtaining a professional land surveyor license in Alaska.

This program is designed to meet the educational requirements for professional licensure or certification in the State of Alaska. However, the program might not meet the educational requirements for professional licensure or certification in other states.
Please see UAA's Licensure and Certification website (https://www.uaa.alaska.edu/academics/office-of-academic-affairs/licensure.cshtml/) for more information.

Admission Requirements

- Complete the Admission Requirements for Baccalaureate Degrees (p. 46).

Special Considerations

- Students who intend to enroll in this degree of study are strongly encouraged to complete the following courses in high school with a C or better: Mathematics - Algebra and Trigonometry (2 semesters), Natural Science such as Chemistry, Physics, Biology, or Geology (1 year), English Composition - Skill level as demonstrated by ACT, SAT, or approved placement test to qualify for enrollment in WRTG A111. Insufficient preparation may increase the number of semesters required to complete the degree.
- A student who is unable to earn a minimum grade of C in a major requirement course during their initial enrollment may attempt to earn a satisfactory grade one additional time on a space-available basis. Failure to earn a minimum grade of C on the second attempt may result in removal from the geomatics program.

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (p. 442).
- Complete the General Education Requirements for Baccalaureate Degrees (p. 443).
  - The 3 credit Tier 1 Quantitative Skills GER will be met and exceeded by the following degree requirements: (MATH A151 &MATH A152) or MATH A155, MATH A251 or MATH A251F, and MATH A252 or MATH A252F.
  - The 7 credit Tier 2 Natural Science GER will be met and exceeded by the 11-12 credit Natural Sciences Elective degree requirement.
  - For 3 credits of Tier 2 Humanities GER, choose PHIL A305.
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
Core Courses		
BA A241	Business Law I	3
BA A300	Organizational Theory and Behavior	3
ESM A450	Economic Analysis and Operations	3
GEO A146	Geomatics Computations	3
GEO A346	Advanced Geomatics Computations	3
GEO A460	Geomatics Capstone Project	3
GIS A101 & A101L	Introduction to Geographic Information Systems and Introduction to Geographic Information Systems Lab	3
GIS A201	Intermediate Geographic Information Systems	3
GIS A351	Remote Sensing	3
MATH A151 & MATH A152	College Algebra for Calculus and Trigonometry	5-7
or MATH A155	Precalculus	
MATH A251	Calculus I	4-6
or MATH A251F	F.A.T. Calculus I	
PHIL A305	Professional Ethics	3
STAT A253	Applied Statistics for the Sciences	4
Complete 11-12 credits from the following with at least one lab and 3 credits in PHYS		11-12
ASTR A103 & A103L	Solar System Astronomy and Solar System Astronomy Laboratory	
BIOL A102 & BIOL A103	Introductory Biology and Introductory Biology Laboratory	
BIOL A178	Introduction to Oceanography	
or GEOL A178	Introduction to Oceanography	
BIOL A179	Introduction to Oceanography Laboratory	
CHEM A105 & A105L	General Chemistry I and General Chemistry I Laboratory	
ENVI A211	Environmental Science: Systems and Processes	
GEOG A111	Discovering Alaska and Earth's Physical Geography: From Weather to Glaciers	
GEOL A111 & A111L	Planet Earth and Planet Earth Laboratory	
GEOL A115 & A115L	Dangerous Earth and Dangerous Earth Laboratory	
PHYS A123 & A123L	College Physics I and College Physics I Laboratory	
or PHYS A211 & A211L	General Physics I and General Physics I Laboratory	
PHYS A124 & A124L	College Physics II and College Physics II Laboratory	
or PHYS A212 & A212L	General Physics II and General Physics II Laboratory	
Choose one of the following concentration areas: surveying or geographic information systems (GIS).		42-44
Total		**96-103**

Surveying Concentration

Code	Title	Credits
GEO A156 & A156L	Geospatial Measurement I and Geospatial Measurement I Laboratory	3
GEO A256 & A256L	Engineering Surveying and Engineering Surveying Laboratory	3
GEO A266 & A266L	Geospatial Measurement II and Geospatial Measurement II Laboratory	3
GEO A267	Boundary Law I	3
GEO A357	Photogrammetry	3

GEO A359	Geodesy and Map Projections	3
GEO A364	Spatial Data Adjustments	3
GEO A369	Cadastral Surveys	1
GEO A410	High-Density Surveying	3
GEO A420	Point Cloud Analysis	3
GEO A457	Boundary Law II	3
GEO A466 & A466L	Geopositioning and Geopositioning Laboratory	3
KIN A112	First Aid and CPR for Professionals	1
Complete 8-9 credits from the following:		8-9
CSCE A101	Introduction to Computer Science	
ES A106	Engineering Graphics	
GEO A433	Hydrographic Surveying	
GEO A490	Selected Advanced Topics in Geomatics	
GIS A301	Web GIS	
GIS A458	Spatial Data Management	
GIS A466	Spatial Analysis	
GIS A467	Image Analysis	
GIS A498	Individual Research [1]	
Total		**43-44**

Geographic Information Systems (GIS) Concentration

Code	Title	Credits
CSCE A101	Introduction to Computer Science	3
GIS A301	Web GIS	3
GIS A458	Spatial Data Management	3
GIS A466	Spatial Analysis	3
GIS A467	Image Analysis	3
Complete 12 credits from the following (at least 6 credits must be upper-division courses):		12
CSCE A490	Selected Topics in Computer Science and Computer Systems Engineering	
ES A106	Engineering Graphics	
GEO A156 & A156L	Geospatial Measurement I and Geospatial Measurement I Laboratory	
GEO A267	Boundary Law I	
GEO A359	Geodesy and Map Projections	
GEO A490	Selected Advanced Topics in Geomatics	
GEOG A475	Geospatial and Cartographic Techniques for the Sciences	
GIS A498	Individual Research [1]	
KIN A112	First Aid and CPR for Professionals	
Complete an additional 15 credits in CSCE, MATH (excluding MATH A420 and MATH A495A), STAT, GEOG, ECON, BA, or HS. Six of these credits must be upper-division courses.		15
Total		**42**

[1] *A maximum of 6 credits may be applied to degree requirements.*

A minimum of 120 credits is required for the degree, of which 39 must be upper-division.

Honors in Geomatics

The Bachelor of Science in Geomatics recognizes distinguished achievement by conferring programmatic honors in geomatics. In order to receive honors in geomatics, a student must meet the following requirements:

- Complete all requirements for a BS in Geomatics;
- Complete a minimum of 30 resident credits with academic letter grades;
- Have a minimum GPA of 3.50 in the courses required for the major and a cumulative GPA of 3.30 or above
- Be an active member for at least one year of a national or an on-campus student chapter of a professional geomatics society OR document a minimum of eight weeks of work experience in an engineering or geospatial science-related position, or pass geomatics profession-related exams or certifications.

Program Student Learning Outcomes

Students graduating with a Bachelor of Science in Geomatics will be able to:

- Identify, formulate, and solve broadly defined technical or scientific problems by applying knowledge of mathematics and science and/or technical topics to areas relevant to the discipline;
- Formulate or design a system, process, procedure or program for the intended purpose;
- Develop and conduct experiments or test hypotheses, analyze and interpret data and use scientific judgment to draw conclusions;
- Communicate effectively with a range of audiences;
- Understand ethical and professional responsibilities and the impact of technical and/or scientific solutions in global, economic, environmental, and societal contexts;
- Function effectively on teams that establish goals, plan tasks, meet deadlines, and analyze risk and uncertainty.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the

rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

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- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

Sample Plan - GIS

First Year		
Fall		**Credits**
CSCE A101	Introduction to Computer Science	3
GIS A101 & A101L	Introduction to Geographic Information Systems and Introduction to Geographic Information Systems Lab	3
MATH A151	College Algebra for Calculus	4
WRTG A111	Writing Across Contexts	3
	Credits	**13**
Spring		
MATH A152	Trigonometry	3
GER Humanities [1]		3
GER Oral Communication Skills		3
GER Social Sciences [1]		3
GER Written Communication Skills (200-level)		3
	Credits	**15**
Second Year		
Fall		
BA A241	Business Law I	3
GEO A146	Geomatics Computations	3
MATH A251	Calculus I	4
STAT A253	Applied Statistics for the Sciences	4
Program Elective (Natural Science) [2]		3
	Credits	**17**
Spring		
GEO A346	Advanced Geomatics Computations	3
GIS A201	Intermediate Geographic Information Systems	3
GER Social Sciences [1]		3
Program Elective (Natural Science w/ Lab) [2]		4
Elective		3
	Credits	**16**
Third Year		
Fall		
GIS A301	Web GIS	3
GIS A351	Remote Sensing	3
GER Fine Arts		3
Program Elective (GIS Concentration)		3
Program Elective (Natural Science) [2]		3
	Credits	**15**
Spring		
BA A300	Organizational Theory and Behavior	3
GIS A466	Spatial Analysis	3
PHIL A305	Professional Ethics	3
Program Elective (GIS Concentration)		3
Elective		3
	Credits	**15**
Fourth Year		
Fall		
GIS A458	Spatial Data Management	3
GIS A467	Image Analysis	3
Program Elective (Natural Science) [2]		3
Upper Division Program Elective (GIS Concentration)		3
Elective		3
	Credits	**15**
Spring		
ESM A450	Economic Analysis and Operations	3
GEO A460	Geomatics Capstone Project	3
Upper Division Program Elective (GIS Concentration)		3
Upper Division Elective		3
Upper Division Elective		3
	Credits	**15**
	Total Credits	**121**

[1] *Choose a course that also fulfills the Alaska Native-Themed GER.*

[2] *Three (3) Program Elective (Natural Science) credits must be a PHYS selection.*

Sample Plan - Surveying

First Year		
Fall		**Credits**
GEO A156 & A156L	Geospatial Measurement I and Geospatial Measurement I Laboratory	3
MATH A151	College Algebra for Calculus	4
WRTG A111	Writing Across Contexts	3
GER Fine Arts [1]		3
Program Elective (Natural Science) [2]		3
	Credits	**16**
Spring		
KIN A112	First Aid and CPR for Professionals	1
MATH A152	Trigonometry	3
GER Oral Communication Skills		3
GER Social Sciences [1]		3
GER Written Communication Skills (200-level)		3
Program Elective (Natural Science) [2]		3
	Credits	**16**
Second Year		
Fall		
GEO A146	Geomatics Computations	3
GEO A266 & A266L	Geospatial Measurement II and Geospatial Measurement II Laboratory	3
GIS A101 & A101L	Introduction to Geographic Information Systems and Introduction to Geographic Information Systems Lab	3
MATH A251	Calculus I	4
STAT A253	Applied Statistics for the Sciences	4
	Credits	**17**
Spring		
GEO A267	Boundary Law I	3
GEO A346	Advanced Geomatics Computations	3
GIS A201	Intermediate Geographic Information Systems	3
GER Humanities [1]		3
GER Social Sciences [1]		3
	Credits	**15**
Third Year		
Fall		
BA A241	Business Law I	3
GEO A256 & A256L	Engineering Surveying and Engineering Surveying Laboratory	3
GEO A359	Geodesy and Map Projections	3
GIS A351	Remote Sensing	3
Program Elective (Surveying Concentration)		2-3
	Credits	**14-15**
Spring		
BA A300	Organizational Theory and Behavior	3
GEO A357	Photogrammetry	3
GEO A364	Spatial Data Adjustments	3
GEO A369	Cadastral Surveys	1
PHIL A305	Professional Ethics	3
Program Elective (Natural Science w/ Lab) [2]		4
	Credits	**17**
Fourth Year		
Fall		
ESM A450	Economic Analysis and Operations	3
GEO A410	High-Density Surveying	3
GEO A466 & A466L	Geopositioning and Geopositioning Laboratory	3
Program Elective (Surveying Concentration)		3
Program Elective (Natural Science) [2]		3
	Credits	**15**
Spring		
GEO A420	Point Cloud Analysis	3
GEO A457	Boundary Law II	3
GEO A460	Geomatics Capstone Project	3
Program Elective (Surveying Concentration)		3
	Credits	**12**
	Total Credits	**122-123**

[1] *Choose a course that also fulfills the Alaska Native-Themed GER.*

[2] *Three (3) Program Elective (Natural Science) credits must be a PHYS selection.*

Bachelor of Science in Project Management

The Bachelor of Science in Project Management program provides superior and world-class education and research to prepare competent, confident, knowledgeable, collaborative, resourceful and creative project managers capable of managing and leading projects in various domains and industries.

The Bachelor of Science in Project Management program supports the University of Alaska Anchorage (UAA)’s mission to transform lives through teaching, research, community engagement and creative expression in a diverse and inclusive environment. It contributes to the College of Engineering’s mission to educate and inspire, and explore innovative solutions that engage Alaska and beyond.

Admission Requirements

- Complete the Admission Requirements for Baccalaureate Degrees. (p. 46)

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees. (p. 442)
- Complete the General Education Requirements for Baccalaureate Degrees. (p. 443)
- Complete the following major requirements:

Code	Title	Credits
BA A151	Business Foundations	3
BA A300	Organizational Theory and Behavior	3
BA A325	Corporate Finance	3
BA A461	Negotiation and Conflict Management	3
BADA A470	Business Analytics, Data Science, and Machine Learning	3
COMM A450	Communication and Leadership	3
CSCE A115	Introduction to Data Science	3
ESM A450	Economic Analysis and Operations	3
MATH A151	College Algebra for Calculus	4
MATH A221	Applied Calculus for Managerial and Social Sciences	3
PHIL A305	Professional Ethics	3
PM A151	Introduction to Project Management	3
PM A251	Principles of Project Management	3
PM A401	Project Management Fundamentals	3
PM A402	Application of Project Management Processes	3
PM A423	Stakeholder Engagement and Collaboration	3
PM A432	Advanced Project Controls	3
PM A440	Organizational Project Maturity and Improvement	3
PM A441	Lean Six Sigma Green Belt	3
PM A486	Project Management Capstone	3
STAT A200	Elementary Statistics	3
Total		**64**

A minimum of 120 credits is required for the degree, of which 39 must be upper-division.

Honors in Project Management

The Bachelor of Science in Project Management recognizes distinguished achievement by conferring programmatic honors in project management. In order to receive honors in project management, a student must meet the following requirements:

- Complete all program requirements;
- Earn a minimum GPA of 3.50 in the courses required for the major;
- Gain approval for, complete and present a research project prior to applying for graduation. The project proposal, presentation and final written report must be approved by the program faculty.

Program Student Learning Outcomes

Students graduating with a Bachelor of Science in Project Management will be able to:

- Manage and lead projects in various domains and industries within diverse contexts and global environments.
- Create value for the stakeholders, community, society, etc., by selecting justifiable projects and managing them successfully.
- Demonstrate proficiency in applying the three skill categories of project management, including a diverse understanding of ways of working, power skills, and business acumen.
- Explain and apply project management principles and project management performance domains.
- Demonstrate proficiency in project management knowledge areas and project management processes.
- Identify stakeholder expectations, determine business needs, and initiate a project.
- Develop comprehensive project management plans containing various subsidiary plans and project documents.
- Demonstrate high capabilities in working in teams, managing resources, motivating team members, negotiating, and interacting with stakeholders.
- Initiate, plan, execute, monitor, control, and close projects successfully.
- Demonstrate professional responsibility and adherence to ethics.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.

- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
MATH A151	College Algebra for Calculus	4
PM A151	Introduction to Project Management	3
WRTG A111	Writing Across Contexts	3
GER Alaska Native-Themed		3
Elective		3
	Credits	**16**
Spring		
BA A151	Business Foundations	3
COMM A111	Fundamentals of Oral Communication	3
CSCE A115	Introduction to Data Science	3
GER Written Communication Skills (200 Level)		3
Elective		3
	Credits	**15**
Second Year		
Fall		
PM A251	Principles of Project Management	3
STAT A200	Elementary Statistics	3
GER Intercultural Fluency		3
GER Natural Sciences		3
Elective		3
	Credits	**15**
Spring		
MATH A221	Applied Calculus for Managerial and Social Sciences	3
GER Humanities		3
GER Natural Sciences		4
GER Social Sciences		3
Elective		3
	Credits	**16**
Third Year		
Fall		
BA A300	Organizational Theory and Behavior	3
BA A325	Corporate Finance	3
PHIL A305	Professional Ethics	3
PM A441	Lean Six Sigma Green Belt	3
Elective		4
	Credits	**16**
Spring		
COMM A450	Communication and Leadership	3
ESM A450	Economic Analysis and Operations	3
PM A440	Organizational Project Maturity and Improvement	3
GER Fine Arts		3
Elective		3
	Credits	**15**
Fourth Year		
Fall		
BA A461	Negotiation and Conflict Management	3
BADA A470	Business Analytics, Data Science, and Machine Learning	3
PM A401	Project Management Fundamentals	3
PM A402	Application of Project Management Processes	3
Elective		3
	Credits	**15**
Spring		
PM A423	Stakeholder Engagement and Collaboration	3
PM A432	Advanced Project Controls	3
PM A486	Project Management Capstone	3
Elective		3
	Credits	**12**
	Total Credits	**120**

Minor in Project Management

The Minor in Project Management seeks to increase student success and address industry needs by enhancing existing undergraduate degrees with project management, leadership, business analytics, communication and collaboration skills. Students from any discipline are eligible to pursue the Minor in Project Management after completing requirements from courses listed below. Advisors can modify leadership and capstone/practicum courses to meet discipline-specific needs.

Students majoring in another subject who wish to minor in project management must complete the following requirements.

Code	Title	Credits
PM A401	Project Management Fundamentals	3
PM A402	Application of Project Management Processes	3
Complete one of the following business analytics courses:		3
BA A325	Corporate Finance	
BA A385	Intermediate Financial Management	
BADA A410	Project Management	

ESM A450	Economic Analysis and Operations	
Advisor approved course		
Complete one of the following project management courses:		3
PM A412	Advanced Project Time Management	
PM A423	Stakeholder Engagement and Collaboration	
PM A424	Advanced Project Risk Management	
PM A432	Advanced Project Controls	
PM A440	Organizational Project Maturity and Improvement	
PM A441	Lean Six Sigma Green Belt	
PM A450	Advanced Information Technology Project Management	
Complete one of the following leadership courses:		3
BA A300	Organizational Theory and Behavior	
BA A401	Alaska Native Corporation Business Management	
BA A402	Alaska Native Corporation Leadership	
BA A461	Negotiation and Conflict Management	
BA A470	Becoming a Leader	
HUMS A224	Systems of Conflict and Collaboration	
HUMS A333	Alternative Dispute Resolution	
HUMS A356	The Dynamics of Human Service Organizations	
HUMS A464	Leadership and Diversity in Contemporary Society	
SWK A335	Human Behavior in the Social Environment	
SWK A428	Social Work Practice with Organizations and Communities	
Advisor approved course		
Complete one of the following capstone courses:		3
BA A462	Strategic Management	
BA A481	Applications in Management	
BA A485	International Business Applications	
BA A495	Advanced Internship in Business Administration	
CE A438	Design of Civil Engineering Systems	
CSCE A470	Computer Science and Engineering Capstone Project	
EE A438	Design of Electrical Engineering Systems	
GEO A460	Geomatics Capstone Project	
HS A498	Senior Project in Health Sciences	
ME A438	Design of Mechanical Engineering Systems	
NS A411	Population Health Integrative Capstone	
Advisor approved course		
Total		**18**

A minimum of 18 credits is required for the minor.

Bachelor of Science in Mechanical Engineering

The Bachelor of Science (BS) in Mechanical Engineering prepares students for a career in mechanical engineering and associated professional fields. Opportunities in mechanical engineering are broad and diverse, including the automotive and aerospace industries, biotechnology, the oil and natural gas industries, renewable energy and environmental controls, manufacturing, computer and electronic hardware, and more. UAA's BS in Mechanical Engineering program provides hands-on learning and professional networking opportunities to prepare students for a successful career.

The BS in Mechanical Engineering is accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org (https://www.abet.org/).

Licensure and/or Certification

Graduates of the BS in Mechanical Engineering gain four years of education credit toward obtaining a Professional Engineer license in Alaska.

This program is designed to meet the educational requirements for professional licensure or certification in the State of Alaska. However, the program might not meet the educational requirements for professional licensure or certification in other states.
Please see UAA's Licensure and Certification website (https://www.uaa.alaska.edu/academics/office-of-academic-affairs/licensure.cshtml/) for more information.

Admission Requirements

- Complete the Admission Requirements for Baccalaureate Degrees. (p. 46)

Special Considerations

- Students who intend to enroll in this degree of study are strongly encouraged to complete the following content in high school with a grade of C or better: Trigonometry (1/2 year), Physics (1 year), Algebra (2 years), Chemistry (1 year), and English (3 years). Insufficient preparation may increase the number of semesters required to complete the degree.
- All prerequisites for engineering courses must be completed with a minimum grade of C, and all courses listed in the major requirements must be completed with a grade of C or higher. A student who is unable to earn a grade of C or higher in a program course offered by the College of Engineering will be required

to meet with a department faculty advisor to develop a plan for improvement of academic performance before continuing in the program. A student who fails to earn a grade of C or higher on the second attempt will be required to meet with an academic advisor and a member of the College of Engineering professional advising staff to develop a plan for improvement of academic performance before continuing in the program. A student who fails to earn a grade of C or higher on the third attempt will be removed from the program. Re-admittance requires a letter of appeal from the student requesting re-admittance with an explanation of any mitigating factors and how these factors have been addressed. Re-admittance is subject to approval by the faculty of the program and is communicated by the department chair.

- The program requires its students to abide by the principles of academic integrity described in the Student Code of Conduct. Should suspected cases of academic misconduct occur, these cases may be submitted to the UAA Dean of Students Office, where the assistant director of student conduct reviews all allegations of academic misconduct. At the conclusion of the review, the assistant director of student conduct issues a notification of the findings and conclusions to the reporting faculty member, department chair and dean. Should a student from the program be found responsible for a case of academic misconduct by the UAA Dean of Students Office on two separate occasions, that student will be removed from the program. Re-admittance requires a letter of appeal from the student requesting re-admittance with an explanation of any mitigating factors and how these factors have been addressed. Re-admittance is subject to approval by the faculty of the program and is communicated by the department chair.

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (p. 443).
- Complete the General Education Requirements (GER) for Baccalaureate Degrees (p. 443).
  - The 3 credit Tier 1 Quantitative Skills GER will be met and exceeded by the following degree requirements: MATH A251 or MATH A251F, MATH A252 or MATH A252F, and MATH A253.
  - The 7 credit Natural Science GER will be met and exceeded by the following degree requirements: CHEM A105, CHEM A105L, PHYS A211, PHYS A211L, PHYS A212, and PHYS A212L.
- Sit for the Fundamentals of Engineering (FE) examination administered by the National Council of Examiners for Engineering and Surveying (NCEES).
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
Core Courses		
BA A300	Organizational Theory and Behavior	3
or ESM A450	Economic Analysis and Operations	
CHEM A105 & A105L	General Chemistry I and General Chemistry I Laboratory	4
EE A203	Fundamentals of Electrical Engineering I	3
ENGR A151	Introduction to Engineering	1
ES A106	Engineering Graphics	2
ES A209	Statics	3
ES A210	Dynamics	3
ES A261	Introduction to Engineering Computation	3
ES A331	Mechanics of Materials	3
ES A341 & ME A341L	Fluid Mechanics and Fluid Mechanics Lab	4
ES A346	Introduction to Thermodynamics	3
MATH A251	Calculus I	4-6
or MATH A251F	F.A.T. Calculus I	
MATH A252	Calculus II	4-6
or MATH A252F	F.A.T. Calculus II	
MATH A253	Calculus III	4
MATH A302	Ordinary Differential Equations	3
ME A203	Machine Design I	3
ME A303	Machine Design II	3
ME/EE A306	Dynamics of Systems	3
ME/EE A308	Instrumentation and Measurement	3
ME A334 & A334L	Materials Science and Materials Science Laboratory	4
ME A403	Machine Design III	3
ME A414 & A414L	Thermal System Design and Thermal System Design Lab	4
ME A438	Design of Mechanical Engineering Systems	3
ME A441	Heat and Mass Transfer	3
PHYS A211 & A211L	General Physics I and General Physics I Laboratory	4
PHYS A212 & A212L	General Physics II and General Physics II Laboratory	4
STAT A307	Probability and Statistics	4
Advanced Engineering Electives		
Complete 12 credits, including at least 9 credits of ME courses, from the following:		12
ME A408	Mechanical Vibrations	
or ME A608	Mechanical Vibrations	
ME A421	Engineering Finite Element Analysis	
or ME A621	Engineering Finite Element Analysis	
ME A432	Analytical Dynamics	
or ME A632	Analytical Dynamics	
ME A434	Materials Selection for Design	
ME A442	Advanced Fluid Mechanics	

or ME A642	Advanced Fluid Mechanics
ME A451	Aerodynamics
or ME A651	Aerodynamics
ME A454	Manufacturing Design
ME A456	Renewable Energy Systems Engineering
or ME A656	Renewable Energy Systems Engineering
ME A459	Fracture Mechanics
or ME A659	Fracture Mechanics
ME A460	Turbomachinery
or ME A660	Turbomachinery
ME/EE A471	Automatic Control
ME A630	Advanced Mechanics of Materials
ME A664	Corrosion Processes and Engineering
ME A672	Advanced Linear Systems
or EE A472	Advanced Linear Systems
Total	**100-104**

A minimum of 124 credits is required for the degree, of which 39 credits must be upper-division.

Honors in Mechanical Engineering

The BS in Mechanical Engineering recognizes distinguished achievement by conferring programmatic honors in mechanical engineering. In order to receive honors in mechanical engineering, a student must meet the following requirements:

- Complete all program requirements;
- Earn a minimum cumulative GPA of 3.50 or above in the courses required for the major;
- Gain approval for, complete, and present a design/research project prior to applying for graduation. The project proposal, presentation and final written report must be approved by the program faculty.

Program Student Learning Outcomes

Students graduating with a Bachelor of Science in Mechanical Engineering will be able to:

- identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics;
- apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors;
- communicate effectively with a range of audiences;
- recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts;
- function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives;
- develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgement to draw conclusions; and
- acquire and apply new knowledge as needed, using appropriate learning strategies.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year

Fall		**Credits**
CHEM A105	General Chemistry I	3
CHEM A105L	General Chemistry I Laboratory	1
ENGR A151	Introduction to Engineering	1
MATH A251 or MATH A251F	Calculus I or F.A.T. Calculus I	4-6
WRTG A111	Writing Across Contexts	3
GER Oral Communication Skills		3
	Credits	**15-17**

Spring		
ES A106	Engineering Graphics	2
MATH A252 or MATH A252F	Calculus II or F.A.T. Calculus II	4-6
PHYS A211	General Physics I [1]	3
PHYS A211L	General Physics I Laboratory	1
GER Humanities [2]		3
GER Written Communication Skills (200-level)		3
	Credits	**16-18**
Second Year		
Fall		
ES A209	Statics	3
ES A261	Introduction to Engineering Computation	3
MATH A253	Calculus III	4
PHYS A212	General Physics II	3
PHYS A212L	General Physics II Laboratory	1
GER Social Sciences		3
	Credits	**17**
Spring		
ES A210	Dynamics	3
ES A331	Mechanics of Materials	3
ES A346	Introduction to Thermodynamics	3
MATH A302	Ordinary Differential Equations	3
ME A203	Machine Design I	3
	Credits	**15**
Third Year		
Fall		
EE A203	Fundamentals of Electrical Engineering I	3
ME A303	Machine Design II	3
ME A306	Dynamics of Systems	3
ME A334	Materials Science	3
ME A334L	Materials Science Laboratory	1
STAT A307	Probability and Statistics	4
	Credits	**17**
Spring		
ES A341	Fluid Mechanics	3
ME A308	Instrumentation and Measurement	3
ME A341L	Fluid Mechanics Lab	1
ME A403	Machine Design III	3
GER Humanities [2]		3
	Credits	**13**
Fourth Year		
Fall		
ME A414	Thermal System Design	3
ME A414L	Thermal System Design Lab	1
ME A441	Heat and Mass Transfer	3
GER Social Sciences		3
Program Elective (Advanced Engineering)		3
Program Elective (Advanced Engineering)		3
	Credits	**16**
Spring		
ESM A450 or BA A300	Economic Analysis and Operations or Organizational Theory and Behavior	3
ME A438	Design of Mechanical Engineering Systems	3
GER Fine Arts		3
Program Elective (Advanced Engineering)		3
Program Elective (Advanced Engineering)		3
	Credits	**15**
	Total Credits	**124-128**

1 *In addition to mathematics prerequisites, this course requires completion of either PHYS A130 or a minimum score of 19 on UAA's Physics Placement Exam. Students who have had physics in high school should consider the Physics Placement Exam, and can get more information from an advisor.*

2 *Choose a course that also fulfills the Alaska Native-Themed GER or Intercultural Fluency GER.*

Minor in Mechanical Engineering

Students majoring in another subject who wish to minor in mechanical engineering must complete the following requirements.

Code	Title	Credits
Complete 18 credits from the following:		18
ES A331	Mechanics of Materials [1]	
ES A341	Fluid Mechanics [1]	
ES A346	Introduction to Thermodynamics [1]	
ME A203	Machine Design I	
ME A303	Machine Design II	
ME/EE A306	Dynamics of Systems [1]	
ME/EE A308	Instrumentation and Measurement	
ME A334	Materials Science [1]	
ME A334L	Materials Science Laboratory	
ME A341L	Fluid Mechanics Lab	
or ES A341L	Fluid Mechanics Laboratory	
ME A403	Machine Design III	
ME A414	Thermal System Design	
ME A414L	Thermal System Design Lab	
ME A441	Heat and Mass Transfer [1]	
Total		**18**

1 *Recommended set of courses*

A minimum of 18 credits is required for the minor.

College of Health

College of Health (https://www.uaa.alaska.edu/academics/college-of-health/)

School of Allied Health (https://www.uaa.alaska.edu/academics/college-of-health/departments/school-of-allied-health/)
Allied Health Sciences Building, Room 148
(907) 786-4346, uaa_alliedhealth@alaska.edu

School of Justice and Human Services (https://www.uaa.alaska.edu/academics/college-of-health/departments/human-services/justice-and-human-services.cshtml/)
Professional Studies Building (PSB), Room 218
(907) 786-1810, uaa_justicecenter@alaska.edu
(907) 786-6437, uaa.humanservices@alaska.edu

Division of Population Health Sciences (https://www.uaa.alaska.edu/academics/college-of-health/departments/population-health-sciences/)
Professional Studies Building (PSB), Room 206
(907) 786-6545, dphs@alaska.edu

School of Nursing (https://www.uaa.alaska.edu/academics/college-of-health/departments/school-of-nursing/)
Health Sciences Building (HSB), Room 101
(907) 786-4550, nursing@alaska.edu

School of Preventive and Therapeutic Sciences (https://www.uaa.alaska.edu/academics/college-of-health/departments/preventive-and-therapeutic-sciences/)
Professional Studies Building (PSB), Room 146
(907) 786-6933, uaa.therapeutic.sciences@alaska.edu

School of Social Work (https://www.uaa.alaska.edu/academics/college-of-health/departments/school-of-social-work/index.cshtml/)
Professional Studies Building (PSB), Suite 234
(907) 786-6900, uaa_socialwork@alaska.edu

Minor in Athletic Training

Students who wish to minor in athletic training must complete the following requirements. Prerequisites for these courses must also be satisfied. Requires a minimum grade of C in KIN A356 and KIN A357.

Code	Title	Credits
DN A203	Nutrition for Health Sciences	3
or DN A360	Sports Nutrition	
KIN A289	Prevention and Care of Activity-Related Injuries	3
KIN A356	Lower Body Injury Assessment Skills	3
KIN A357	Upper Body Injury Assessment Skills	3
KIN A382	Kinesiology and Biomechanics	4
KIN A385	Physiology of Exercise	4
MA A101	Medical Terminology	3
Total		**23**

A minimum of 23 credits, including 14 upper-division credits, is required for the minor.

Occupational Endorsement Certificate in Children's Behavioral Health

The Occupational Endorsement Certificate (OEC) in Children’s Behavioral Health is for individuals who are currently working with, or are planning to work with, children and youth in therapeutic residential settings. By completing these OEC requirements, students gain skills essential to becoming effective members of therapeutic treatment teams. All classes in this OEC are within the Human Services (HUMS) program and will be counted as elective credits for students enrolled in the HUMS undergraduate degrees.

Admission Requirements

- Complete the Admission Requirements for Occupational Endorsement Certificates (p. 46).

Graduation Requirements

- Complete the General University Requirements for Occupational Endorsement Certificates (p. 440).
- Complete the following major requirements with a minimum grade of C. Students who audit a Disability and Long Term Supports (DLS) course or who are unable to earn a minimum grade of C may repeat it following the procedures outlined in the Academic Standards and Regulations (p. 21).

Code	Title	Credits
HUMS A200	Introduction to Children's Behavioral Health	3
HUMS A205	Teaching Behavioral Support and Social Skills to Youth	3
HUMS A206	Understanding Mental Health Diagnosis, Treatment, and Interventions in Children’s Behavioral Health	3
HUMS A207	Trauma Informed Work with Children	3
Total		**12**

A minimum of 12 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with an Occupational Endorsement Certificate in Children's Behavioral Health will be able to:

- Use knowledge of therapeutic techniques, child development and cultural responsiveness to interpret treatment plans in therapeutic settings for children and youth.

- Apply an array of strategies to support and shape behavior of children and youth with challenging behaviors.
- Abide by professional practices accepted in the field of children's behavioral health.
- Blend concepts and skills to develop trauma-informed practices in children's behavioral health services.

Occupational Endorsement Certificate in Community, Conflict, and Communication

The Occupational Endorsement Certificate in Community, Conflict, and Communication prepares students to gain the basic competencies necessary for a novice human service professional. It will help students gain knowledge about how human services operate within the general society, develop skills in core helping professions, and learn how to engage diverse communities within Alaska.

Admission Requirements

- Complete the Admission Requirements for Occupational Endorsement Certificates (p. 46).

Special Considerations

- Students must earn a minimum grade of C for any course they wish to use toward the Associate of Applied Science in Human Services or the Bachelor of Human Services.

Graduation Requirements

- Complete the General University Requirements for Occupational Endorsement Certificates (p. 440).
- Complete the following major requirements:

Code	Title	Credits
HUMS A107	History of Systems of Change	3
HUMS A122	Substance Use Disorder in Alaska	3
HUMS A155	Field Work and Human Service Practice	3
HUMS A224	Systems of Conflict and Collaboration	3
Total		**12**

A minimum of 12 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with an Occupational Endorsement Certificate in Community, Conflict, and Communication will be able to:

- Demonstrate their understanding of how communication impacts the work in communities to reduce conflict and improve services for children and families.
- Provide examples of ethical and professional workplace leadership.
- Present National Organization for Human Services (NOHS) Ethical Standards as applied to the workplace.

Occupational Endorsement Certificate in Conflict Resolution

The Occupational Endorsement Certificate (OEC) in Conflict Resolution provides students the opportunity to acquire skills used in various conflict resolution methods used in human service agencies. The program provides a balanced education in the study of family mediation, alternative dispute resolution, paraprofessional counseling, and group facilitation. Instruction is delivered through classroom lectures, demonstrations, case studies, and role-plays.

Admission Requirements

- Complete the Admission Requirements for Occupational Endorsement Certificates (p. 46).

Graduation Requirements

- Complete the General University Requirements for Occupational Endorsement Certificates (p. 440).
- Complete the following major requirements:

Code	Title	Credits
HUMS A224	Systems of Conflict and Collaboration	3
HUMS A225	Counseling in Human Service Practice	3
HUMS A333	Alternative Dispute Resolution	3
HUMS A334	Family Mediation	3
Total		**12**

A minimum of 12 credits is required for the degree.

Program Student Learning Outcomes

Students completing this certificate are prepared to:

- Understand the nature of conflict through theory and collaborative practices.
- Demonstrate enhanced communication skills and interpersonal skills to include negotiation.
- Incorporate conflict management skills in human service practice.
- Integrate concepts of diversity into various collaborative practices.

Occupational Endorsement Certificate in Corrections

Admission to this program is currently suspended. Contact the College of Health for more information.

Undergraduate Certificate in Corrections

Admission to this program is currently suspended. Contact the College of Health for more information.

Bachelor of Arts in Criminology and Criminal Justice

The Bachelor of Arts (BA) in Criminology and Criminal Justice is an interdisciplinary program that prepares students for engaged citizenship; scholarship; justice careers in private and public organizations; and advanced studies in criminology, law, criminal justice, social research, and public administration. Those graduates with records of high achievement in the justice undergraduate program are prepared to pursue advanced education in graduate, law and professional degree programs at the University of Alaska Anchorage and other universities. Graduates who receive a BA in Criminology and Criminal Justice have the specialized knowledge and skills required for the evaluation, administration and improvement of police, court, and correctional policies and organizations.

Admission Requirements

- Complete the Admission Requirements for Baccalaureate Degrees (p. 46).

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (p. 442).
- Complete the General Education Requirements for Baccalaureate Degrees (p. 443).
- All justice majors must complete the Criminology and Criminal Justice Exit Examination. No minimum score is needed for graduation.
- Complete the following major requirements:

Code	Title	Credits
JUST A110	Introduction to Criminal Justice	3
JUST A175	Introduction to Juvenile Justice	3
JUST A200	Introduction to Research Methods in Criminology and Criminal Justice	3
JUST A201	Data Analysis in Criminology and Criminal Justice	3
JUST A221	Dynamics of Criminal Justice Organizations	3
JUST A251	Theories of Crime and Criminal Offending	3
JUST A320	Crime Prevention	3
JUST A330	Ethics in Criminal Justice Practice and Policy	3
JUST A333	Crime Victimization and Justice	3
JUST A334	Police and Society	3
JUST A360	Justice Theory and Policy Analysis	3
JUST/LEGL A374	The Courts	3
JUST A384	Contemporary Corrections	3
LEGL A352	Criminal Law: Murder, Robbery, and Other Crimes	3
Complete 15 credits of Criminology and Criminal Justice (JUST) electives; 12 credits must be upper-division [1]		15

[1] *Only 6 credits of JUST A490 may be counted toward the criminology and criminal justice electives required for the Bachelor of Arts in Criminology and Criminal Justice.*

A minimum of 120 credits is required for the degree, of which 39 credits must be upper-division.

Honors in Criminology and Criminal Justice

The Justice Center awards departmental honors for outstanding achievement in the study of justice. Students majoring in criminology and criminal justice are eligible to graduate with criminology and criminal justice honors upon satisfactory completion of all of the following requirements:

- Meet the requirements for a Bachelor of Arts in Criminology and Criminal Justice;
- Earn a minimum cumulative GPA of 3.20 and a minimum GPA of 3.50 for the criminology and criminal justice major; and
- Complete a criminology and criminal justice GER integrated capstone, e.g. JUST A460, with a minimum grade of A.

Program Student Learning Outcomes

Students graduating with a Bachelor of Arts in Criminology and Criminal Justice will be able to:

- Assess and critique the structure, operation, and administration of the criminal and juvenile justice systems.
- Explain the essential principles of criminology and criminal justice research and evaluate the results of social science research.
- Assess and critique the different theoretical perspectives in criminology.
- Evaluate methods of crime control and prevention.
- Describe processes of criminal justice policy development and the requirements of evidence-based policymaking.
- Evaluate the historical and contemporary philosophies of criminal justice.
- Describe the justice, health, and safety impacts of crime victimization on individuals and communities.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (https://uaa-alaska-test.courseleaf.com/academicpoliciesprocesses/academicstandardsregulations/courseplacement/), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very**

important to meet with your academic advisor to verify your personal academic plan.

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (https://uaa-alaska-test.courseleaf.com/undergraduateprograms/baccalaureaterequirements/gers/). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
JUST A110	Introduction to Criminal Justice	3
JUST A175	Introduction to Juvenile Justice	3
GER Oral Communication Skills		3
GER Quantitative Skills		3
GER Written Communication Skills		3
	Credits	**15**
Spring		
JUST A221	Dynamics of Criminal Justice Organizations	3
JUST A251	Theories of Crime and Criminal Offending	3
GER Humanities		3
GER Written Communication Skills		3
Elective		3
	Credits	**15**
Second Year		
Fall		
JUST A200	Introduction to Research Methods in Criminology and Criminal Justice	3
JUST A330	Ethics in Criminal Justice Practice and Policy	3
GER Humanities		3
GER Natural Sciences w/Lab		4
Elective		3
	Credits	**16**
Spring		
JUST A201	Data Analysis in Criminology and Criminal Justice	3
JUST A320	Crime Prevention	3
LEGL A352	Criminal Law: Murder, Robbery, and Other Crimes	3
GER Fine Arts		3
GER Natural Sciences		3
	Credits	**15**
Third Year		
Fall		
JUST A334	Police and Society	3
JUST A360	Justice Theory and Policy Analysis	3
JUST A384	Contemporary Corrections	3
Elective		3
Program Elective		3
	Credits	**15**
Spring		
JUST A333	Crime Victimization and Justice	3
JUST A374	The Courts	3
Elective		3
Elective		3
Upper Division Program Elective		3
	Credits	**15**
Fourth Year		
Fall		
JUST A355	Rural Justice	3
Elective		3
Elective		3
Upper Division Program Elective		3
Upper Division Program Elective		3
	Credits	**15**
Spring		
GER Integrative Capstone		3
Elective		3
Elective		3
Elective		3
Upper Division Program Elective		3
	Credits	**15**
	Total Credits	**121**

Minor in Criminology and Criminal Justice

Students who wish to complement their studies in another discipline with knowledge of crime, law and justice may declare a Minor in Criminology and Criminal Justice. Students wishing to minor in criminology and criminal justice must complete the following requirements.

Code	Title	Credits
JUST A110	Introduction to Criminal Justice	3
JUST A251	Theories of Crime and Criminal Offending	3
Upper division electives in Criminology and Criminal Justice (JUST) or Legal Studies (LEGL) [1]		9
Electives in Criminology and Criminal Justice (JUST) or Legal Studies (LEGL) (100-level or above) [1]		3
Total		**18**

[1] *Legal Studies (LEGL) courses fulfill the criminology and criminal justice elective requirements for the Minor in Criminology and Criminal Justice except where the student has elected a Bachelor of Arts or Minor in Legal Studies. Legal Studies (LEGL) courses cannot be used (counted twice) to meet both the requirements of the Minor in Criminology and Criminal Justice, and the Bachelor of Arts or Minor in Legal Studies.*

A total of 18 credits is required for the minor, 9 of which must be upper division.

Associate of Applied Science in Dental Assisting

Admission to this program is currently suspended. Contact the College of Health for more information.

Undergraduate Certificate in Dental Assisting

Admission to this program is currently suspended. Contact the College of Health for more information.

Bachelor of Science in Dental Hygiene

The UAA dental hygiene entry-level program prepares graduates for licensure and employment as dental hygienists.

The UAA dental hygiene program is accredited by the Commission on Dental Accreditation (CODA).

Licensure and/or Certification

Graduates of the Bachelor of Science in Dental Hygiene (BSDH) are eligible to sit for the National Board Dental Hygiene Examination from the Joint Commission on National Dental Examinations and for regional clinical examinations required for state licensure. Graduation from a CODA-accredited dental hygiene program and successful completion of licensure examinations are required to obtain a State of Alaska Dental Hygiene License.

Graduates of the BSDH are eligible to sit for clinical exams given by the Dental Competency Assessment/Western Regional Examining Board (CDCA/WREB) required for licensure.

This program is designed to meet the educational requirements for professional licensure or certification in the State of Alaska. However, the program might not meet the educational requirements for professional licensure or certification in other states. Please see UAA's Licensure and Certification website (https://www.uaa.alaska.edu/academics/office-of-academic-affairs/licensure.cshtml/) for more information.

Admission Requirements

- Complete the Admission Requirements for Baccalaureate Programs (p. 46).
- Complete the following Admission Requirements for the BS in Dental Hygiene:
  - All students will initially be admitted to a pre-major status. Admission to the pre-major status does not guarantee subsequent admission to the major. Admission to the entry-level program is competitive due to limited capacity. As a pre-major, students work with an advisor to assist them in completing pre-major requirements and preparing to apply to the full major. Admission to the BSDH for graduates of an associate degree dental hygiene program for the purpose of bachelor degree completion does not require a competitive admission process.
  - Complete the following courses with a minimum grade of C:

Code	Title	Credits
BIOL A111 & A111L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Lab	4
BIOL A112 & A112L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Lab	4
BIOL A240 & A240L	Introductory Microbiology for Health Sciences and Introductory Microbiology for Health Sciences Laboratory	4
COMM GER course		3
CHEM A103 & A103L	Introduction to General Chemistry and Introduction to General Chemistry Laboratory	4
or CHEM A105 & A105L	General Chemistry I and General Chemistry I Laboratory	

CHEM A104 & A104L	Introduction to Organic and Biochemistry and Introduction to Organic and Biochemistry Laboratory	4
PSY A111	Introduction to Psychology	3
or PSY A150	Lifespan Development	
SOC A101	Introduction to Sociology	3
or SOC A201	Social Problems and Solutions	
WRTG GER course		3

- For entry-level admission to the BSDH, submit an application according to criteria and deadlines on the program website (https://www.uaa.alaska.edu/academics/college-of-health/departments/preventive-and-therapeutic-sciences/dental-hygiene/index.cshtml/). Completion of the program admission requirements does not guarantee acceptance into the dental hygiene program as a full major.
- Applicants with an associate degree in dental hygiene should meet with an advisor to determine eligibility to petition selected coursework for the major.

Special Considerations

- Prior to beginning pre-clinical and clinical courses, students must provide documentation of the following:
  - Current health insurance
  - Vaccinations as listed in the program handbook
  - Current Basic Life Support certification for healthcare professionals
  - State of Alaska background checks
- Students in the entry-level Bachelor of Science in Dental Hygiene will be selected in August and will start dental hygiene classes in January. Once enrolled in the BSDH, the student can anticipate a five-semester, 40-hour-per-week schedule that includes course activities outside of normal class times. Evening classes and clinics may be scheduled.

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (p. 442).
- Complete the General Education Requirements for Baccalaureate Degrees (p. 443).
  - For Written Communication Skills GER, WRTG A212 is recommended.
  - Courses required for program admission may satisfy Oral Communication Skills, Social Sciences and Natural Sciences GERs.
  - The statistics major requirement may satisfy the Quantitative Skills GER.
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
BIOL A111 & A111L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Lab	4
BIOL A112 & A112L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Lab	4
BIOL A240 & A240L	Introductory Microbiology for Health Sciences and Introductory Microbiology for Health Sciences Laboratory	4
CHEM A103 & A103L	Introduction to General Chemistry and Introduction to General Chemistry Laboratory	4
or CHEM A105 & A105L	General Chemistry I and General Chemistry I Laboratory	
CHEM A104 & A104L	Introduction to Organic and Biochemistry and Introduction to Organic and Biochemistry Laboratory	4
DH A110	Dental Radiography	4
DH A160	Applied Dental Materials	3
DH A200	Basic Instrumentation for Dental Hygienists	2
DH A201	Oral Histology and Embryology	2
DH A203	Assessment Procedures in Dental Hygiene	3
DH A204	Anatomy of the Orofacial Structures	2
DH A220	Introduction to Preventive Dentistry	2
DH A222	Adjunctive Techniques for Dental Hygienists	3
DH A292D	Clinical Seminar I	1
DH A292E	Preclinical Seminar	1
DH A295D	Clinical Practicum I	4
DH A302	Advanced Instrumentation for Dental Hygienists	1
DH A310	Oral Pain Control	3
DH A311	Periodontics	2
DH A314	Pathology of Oral Tissues	2
DH A316	Professional Dental Hygiene Practice	1
DH A321	Current Periodontal Therapies	2
DH A324	Community Dental Health I	2
DH A365	Pharmacology for Dental Hygienists	2
DH A392C	Clinical Seminar II	1
DH A392D	Clinical Seminar III	1
DH A395C	Clinical Practicum II	5
DH A395D	Clinical Practicum III	6

DN A203	Nutrition for Health Sciences	3
PSY A111	Introduction to Psychology	3
or PSY A150	Lifespan Development	
SOC A101	Introduction to Sociology	3
or SOC A201	Social Problems and Solutions	
STAT A200	Elementary Statistics	3-4
or STAT A253	Applied Statistics for the Sciences	
Complete a minimum of 11 credits from the following:		11
DH A360	Restorative Techniques for Dental Auxiliaries	
DH A390	Selected Topics in Dental Hygiene [1]	
DH A395E	Community Practicum in Dental Hygiene [2]	
DH A495B	Instructional Practicum in Dental Hygiene	
DH A495E	Rural Practicum in Dental Hygiene [2]	
DN A325	Food & Nutrition in Modern Alaska	
DN A355	Weight Management and Eating Disorders	
DN A407	Preventive and Therapeutic Nutrition	
ENGL A312	Technical Writing and Design	
or ENGL A313	Professional Writing	
or ENGL A414	Research Writing	
HS A370	Social and Cultural Determinants of Health	
PHIL A302	Biomedical Ethics	
Other courses approved by a Dental Hygiene advisor		
Integrative Capstone		
DH A424	Community Dental Health II	3
Total		**101-102**

[1] *No more than 6 credits of DH A390 may be applied toward this degree.*

[2] *No more than 3 credits total of DH A395E and DH A495E can be counted toward this requirement.*

A minimum of 120 credits is required for the degree, of which 39 credits must be upper-division.

Program Student Learning Outcomes

Students graduating with a Bachelor of Science in Dental Hygiene will be able to:

- Provide and document dental hygiene care in a legal and ethical manner.
- Exhibit professional behavior, including time management, risk management, and respect of patients and co-workers.
- Critically evaluate scientific literature and research relevant to dental hygiene.
- Collect, analyze, and record data on the general and oral health status of patients.
- Use critical decision-making skills to develop a dental hygiene diagnosis, which will provide a basis for interventions that are within the scope of dental hygiene practice and determine the need for referral to appropriate health professions as needed.
- Formulate a dental hygiene care plan, including a planned sequence of educational, preventive, and therapeutic services based on the dental hygiene diagnosis in collaboration with the patient and other health care providers.
- Deliver preventive and therapeutic care to achieve and maintain oral health utilizing established infection control procedures, pain control measures, and ergonomic practices.
- Evaluate the effectiveness of the implemented services, and modify as needed.
- Promote the profession of dental hygiene through service and affiliations with professional organizations.
- Assess, plan, implement, and evaluate complex community oral health projects to diverse populations

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.

- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
BIOL A111 & A111L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Lab	4
CHEM A103 & A103L or CHEM A105 ***and*** CHEM A105L	Introduction to General Chemistry or General Chemistry I ***and*** General Chemistry I Laboratory	4
PSY A111 or PSY A150	Introduction to Psychology or Lifespan Development	3
MATH A121 or MATH A151	Applied College Algebra or College Algebra for Calculus	3-4
WRTG A111	Writing Across Contexts	3
	Credits	**17-18**
Spring		
BIOL A112 & A112L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Lab	4
BIOL A240 & A240L	Introductory Microbiology for Health Sciences and Introductory Microbiology for Health Sciences Laboratory	4
CHEM A104 & A104L	Introduction to Organic and Biochemistry and Introduction to Organic and Biochemistry Laboratory [1]	4
SOC A101 or SOC A201	Introduction to Sociology or Social Problems and Solutions	3
GER Oral Communication Skills		3
	Credits	**18**
Second Year		
Fall		
DN A203	Nutrition for Health Sciences	3
STAT A200 or STAT A253	Elementary Statistics or Applied Statistics for the Sciences	3-4
WRTG A212	Writing and the Professions	3
GER Humanities		3
	Credits	**12-13**
Spring		
DH A200	Basic Instrumentation for Dental Hygienists	2
DH A201	Oral Histology and Embryology	2
DH A204	Anatomy of the Orofacial Structures	2
DH A220	Introduction to Preventive Dentistry	2
GER Fine Arts [2]		3
GER Humanities [2]		3
	Credits	**14**
Third Year		
Fall		
DH A110	Dental Radiography	4
DH A203	Assessment Procedures in Dental Hygiene	3
DH A222	Adjunctive Techniques for Dental Hygienists	3
DH A292E	Preclinical Seminar	1
DH A311	Periodontics	2
DH A365	Pharmacology for Dental Hygienists	2
	Credits	**15**
Spring		
DH A160	Applied Dental Materials	3
DH A292D	Clinical Seminar I	1
DH A295D	Clinical Practicum I	4
DH A302	Advanced Instrumentation for Dental Hygienists	1
DH A314	Pathology of Oral Tissues	2
DH A321	Current Periodontal Therapies	2
	Credits	**13**
Fourth Year		
Fall		
DH A310	Oral Pain Control	3
DH A316	Professional Dental Hygiene Practice	1
DH A324	Community Dental Health I	2
DH A392C	Clinical Seminar II	1
DH A395C	Clinical Practicum II	5
Upper Division Program Elective		5
	Credits	**17**
Spring		
DH A392D	Clinical Seminar III	1
DH A395D	Clinical Practicum III	6
DH A424	Community Dental Health II	3
Upper Division Program Elective		6
	Credits	**16**
	Total Credits	**122-124**

Associate of Applied Science in Diagnostic Medical Sonography

The Associate of Applied Science (AAS) in Diagnostic Medical Sonography (DMS) prepares competent entry-level sonographers in the cognitive (knowledge), psychomotor (skills) and affective (behavior) learning domains in abdominal sonography extended and obstetrics and gynecology sonography. Examples of examinations performed by sonographers include abdominal, gynecological, fetal, breast, vascular,

small part and superficial structures. Graduates are prepared to sit for a national certification exam in diagnostic medical sonography.

Diagnostic medical sonographers are trained to provide patient care services, applying ultrasound technology to create images of organs, tissues and blood vessels in a variety of medical settings. Sonographers assist physicians with assessing and diagnosing medical conditions as well as monitoring fetal development.

Admission Requirements

- Complete the Admission Requirements for Associate Degrees (p. 46).
- Complete the following courses with a minimum grade of C:
  - BIOL A111 and BIOL A111L
  - BIOL A112 and BIOL A112L
  - MA A101
  - RADT A151
  - Submit a diagnostic medical sonography program application according to instructions and deadlines on the DMS program website (https://www.uaa.alaska.edu/academics/college-of-health/departments/school-of-allied-health/diagnostic-medical-sonography/).
- Provide documentation of:
  - Completion of a minimum of 8 hours of sonographer observation at two imaging facilities, documented on the program observation form found on the DMS program website (https://www.uaa.alaska.edu/academics/college-of-health/departments/school-of-allied-health/diagnostic-medical-sonography/).

All students will initially be admitted to pre-major status. Admission to pre-major status does not guarantee subsequent admission to the major. As a pre-major, students work with an advisor to assist them in completing pre-major requirements and preparing to apply to the full major. The DMS program website (https://www.uaa.alaska.edu/academics/college-of-health/departments/school-of-allied-health/diagnostic-medical-sonography/) provides details on the admission requirements, process, and deadlines.

Special Considerations

- Once admitted to the full major, students will be required to submit results of a national-level criminal background check for clinical placement.
- Students may be required to show proof of immunizations prior to the start of clinical placement.
- Students will be required to physically attend courses at the main Anchorage campus the first year of full major status.
- Students will be required to complete clinical training at sites around the state during the second year to satisfy competency and graduation requirements. The travel, lodging, and other costs associated with clinical assignment outside the Anchorage area is at the student's expense.
- Students may be required to show proof of health insurance prior to the start of clinical placement.

Graduation Requirements

- Complete the General University Requirements for Associate Degrees (p. 441).
- Complete the General Education Requirements for Associate of Applied Science Degrees (p. 441).
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
BIOL A111	Human Anatomy and Physiology I	3
BIOL A111L	Human Anatomy and Physiology I Lab	1
BIOL A112	Human Anatomy and Physiology II	3
BIOL A112L	Human Anatomy and Physiology II Lab	1
DMS A101	Introduction to Sonography	2
DMS A103	Patient Care in Sonography	2
DMS A105	Principles and Instrumentation I	3
DMS A107	Abdominal Sonography I	3
DMS A109	OB and Gyn Sonography I	3
DMS A205	Principles and Instrumentation II	3
DMS A207	Abdominal Sonography II	3
DMS A209	OB and Gyn Sonography II	3
DMS A213	Vascular Technology	2
DMS A217	Fundamentals of Sonography Lab	1
DMS A219	Practical Sonography Lab	3
DMS A292A	DMS Seminar I	3
DMS A292B	DMS Seminar II	3
DMS A295A	Clinical Practicum I	9
DMS A295B	Clinical Practicum II	9
MA A101	Medical Terminology	3
RADT A151	Radiographic Physics	2
Total		**65**

A minimum of 74 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with an Associate of Applied Science in Diagnostic Medical Sonography will be able to:

- Demonstrate appropriate technical and effective skills in the clinical setting.
- Demonstrate patient-centered age-specific imaging.
- Analyze images to determine diagnostic quality.
- Demonstrate critical thinking and problem-solving skills in both the didactic and clinical setting.
- Apply written communication skills to the construction of documents of record that follow established professional guidelines.

- Apply oral communication skills to the explanation of ideas and scientific terminology.
- Explain cultural diversity and evaluate the role of cultural competency, values, and ethics in the patient care setting.
- Demonstrate proper work ethics.
- Examine the value of leadership, professional development, and growth.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (https://uaa-alaska-test.courseleaf.com/academicpoliciesprocesses/academicstandardsregulations/courseplacement/), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (https://uaa-alaska-test.courseleaf.com/undergraduateprograms/baccalaureaterequirements/gers/). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
BIOL A111 & A111L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Lab	4
MA A101	Medical Terminology	3
GER Quantitative Skills		3
GER Written Communication Skills		3
	Credits	**13**
Spring		
BIOL A112 & A112L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Lab	4
RADT A151	Radiographic Physics	2
GER Oral Communication Skills		3
GER Written Communication Skills		3
	Credits	**12**
Second Year		
Fall		
DMS A101	Introduction to Sonography	2
DMS A103	Patient Care in Sonography	2
DMS A105	Principles and Instrumentation I	3
DMS A107	Abdominal Sonography I	3
DMS A109	OB and Gyn Sonography I	3
	Credits	**13**
Spring		
DMS A205	Principles and Instrumentation II	3
DMS A207	Abdominal Sonography II	3
DMS A209	OB and Gyn Sonography II	3
DMS A213	Vascular Technology	2
DMS A217	Fundamentals of Sonography Lab	1
	Credits	**12**
Summer		
DMS A219	Practical Sonography Lab	3
	Credits	**3**
Third Year		
Fall		
DMS A292A	DMS Seminar I	3
DMS A295A	Clinical Practicum I	9
	Credits	**12**
Spring		
DMS A292B	DMS Seminar II	3
DMS A295B	Clinical Practicum II	9
	Credits	**12**
	Total Credits	**77**

Bachelor of Science in Dietetics

The Bachelor of Science (BS) in Dietetics prepares students to meet the eligibility requirements to sit for the Nutrition and Dietetics Technician, Registered (NDTR) exam. The BS in Dietetics is also designed to prepare students for graduate coursework and supervised practice in programs leading to eligibility for the Registered Dietitian Nutritionist (RDN) credential. To be successful in their field, NDTRs and RDNs need a strong science foundation along with courses in management, clinical and community nutrition, food science, communication, counseling, therapeutic nutrition, and nutrition for the lifespan. The BS in Dietetics is accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND) as a Didactic Program in Dietetics (DPD).

Admission Requirements

- Complete the Admission Requirements for Baccalaureate Programs (p. 46).
- All students will initially be admitted to a pre-major status. Admission as a pre-major does not guarantee admission to the dietetics program.
- Students may apply for admission to the full dietetics major in the spring semester in which they are completing the final prerequisites for the full major (see course list below). The application deadline for the BS in Dietetics is February 15. The application form and full requirements can be found on the UAA dietetics program website (https://www.uaa.alaska.edu/academics/college-of-health/departments/preventive-and-therapeutic-sciences/dietetics-nutrition/index.cshtml/). Applicants transferring credit from another institution should apply to UAA no later than November 1 prior to spring application to the dietetics program to allow sufficient time for application processing and transcript evaluation. Spring enrollment in another institution may postpone transcript evaluation and therefore affect program acceptance.
- Complete the following courses with a minimum grade of C and an overall GPA of 3.00*. BIOL, CHEM and DN courses (or a higher level course in similar subject matter as approved by the program director) must have been completed within the past 10 years:

Code	Title	Credits
BIOL A111 & A111L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Lab	4
BIOL A112 & A112L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Lab	4
CHEM A105 & A105L	General Chemistry I and General Chemistry I Laboratory	4
CHEM A106 & A106L	General Chemistry II and General Chemistry II Laboratory	4
DN A100	The Profession of Dietetics	1
DN A203	Nutrition for Health Sciences	3
MATH A151	College Algebra for Calculus (or higher level math course or test score placement into higher level course)	4
Humanities GER (language is recommended)		6
Oral Communication Skills GER		3
PSY A111 or SOC A101	Introduction to Psychology Introduction to Sociology	3
Written Communication Skills GER		6
At least 6 additional credits of required Dietetics and Nutrition (DN) coursework in residence at UAA (see Major Requirements).		6

* *Conditional acceptance to the program can be granted if the students are in the process of taking any of the prerequisite courses during the spring semester. Students will need to provide official proof of course completion with a minimum grade of C prior to starting the program.*

Special Considerations

Expenses beyond tuition generally include, but are not limited to, activity fees, lab fees, student organization membership, immunizations, fingerprinting and criminal background checks for practicums, cost of Serv Safe certification and food/supplies for some DN courses.

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (p. 442).
- Complete the General Education Requirements for Baccalaureate Degrees (p. 443).
- Meet the following GPA requirements:
  - A minimum overall GPA of 3.00 in major requirements.
  - A minimum grade of C in all courses that count toward the major.
  - A minimum cumulative GPA of 2.50.
- Complete the following major requirements:

Code	Title	Credits
Support Courses		
BIOL A111 & A111L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Lab	4
BIOL A112 & A112L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Lab	4
BIOL A108	Principles and Methods in Biology	6
CHEM A105 & A105L	General Chemistry I and General Chemistry I Laboratory	4
CHEM A106 & A106L	General Chemistry II and General Chemistry II Laboratory	4

HLTH A151	Breaking Trail on Your Health and Social Services Career	3
MATH A151	College Algebra for Calculus (or any course for which MATH A151 is a prerequisite or test score placement into higher level course)	4
Fine Arts GER		3
Humanities GERs (language recommended)		6
Oral Communication Skills GER		3
Social Sciences GER		3
PSY A111	Introduction to Psychology	3
or SOC A101	Introduction to Sociology	
STAT A200	Elementary Statistics	3
WRTG A111	Writing Across Contexts	3
or WRTG A1W	Written Communication Skills GER	
WRTG A212	Writing and the Professions	3
or WRTG A213	Writing and the Sciences	
or WRTG A2W	Written Communication Skills GER	
Core Courses		
BIOL A240 & A240L	Introductory Microbiology for Health Sciences and Introductory Microbiology for Health Sciences Laboratory	4
CHEM A321	Organic Chemistry I	3
CHEM A441	Principles of Biochemistry I *	3
DN A100	The Profession of Dietetics	1
DN A151	Nutrition Through the Life Cycle	3
DN A203	Nutrition for Health Sciences	3
DN/CA A270	Culinary Nutrition	3
DN A275	Introduction to Culinary Medicine	3
DN A301	Nutrition Assessment	3
DN A312	Nutrition Communication and Counseling	3
DN A325	Food & Nutrition in Modern Alaska	3
DN A350	Foodservice Systems and Quantity Foods	4
DN A355	Weight Management and Eating Disorders	3
DN A360	Sports Nutrition	3
DN A401	Medical Nutrition Therapy I	3
DN A402	Medical Nutrition Therapy II	4
DN A415	Community Nutrition *	3
DN A430	Research Methods in Nutrition and Dietetics	3
DN A450	Dietetic Management	3
DN A475	Advanced Nutrition	3
DN A492	Senior Seminar in Dietetics	2
Total		**119**

A minimum of 120 credits is required for this degree, of which 39 credits must be upper-division.

Program Student Learning Outcomes

Students graduating with a BS in Dietetics will be able to:

- Integrate scientific information and the translation of research into practice.
- Demonstrate beliefs, values, attitudes and behaviors for the professional dietitian nutritionist level of practice.
- Develop nutrition-related information, products and services to individuals, groups, and populations.
- Apply principles of management and systems in the provision of nutrition-related services to individuals and organizations.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (https://uaa-alaska-test.courseleaf.com/academicpoliciesprocesses/academicstandardsregulations/courseplacement/), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (https://uaa-alaska-test.courseleaf.com/undergraduateprograms/baccalaureaterequirements/gers/). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.

- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year

Fall		**Credits**
BIOL A111 & A111L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Lab	4
DN A151	Nutrition Through the Life Cycle	3
HLTH A151	Breaking Trail on Your Health and Social Services Career	3
MATH A151	College Algebra for Calculus (or any course for which MATH A151 is a prerequisite or Aleks score of 65 or greater)	4
WRTG A111	Writing Across Contexts	3
	Credits	**17**
Spring		
BIOL A112 & A112L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Lab	4
DN A203	Nutrition for Health Sciences	3
WRTG A212 or WRTG A213	Writing and the Professions (or WRTG A2W) or Writing and the Sciences	3
GER Humanities [1]		3
GER Oral Communications		3
	Credits	**16**
Second Year		
Fall		
CHEM A105 & A105L	General Chemistry I and General Chemistry I Laboratory	4
DN A100	The Profession of Dietetics	1
DN A270	Culinary Nutrition	3
GER Humanities		3
GER Social Sciences [1]		3
	Credits	**14**
Spring		
BIOL A108	Principles and Methods in Biology	6
CHEM A106 & A106L	General Chemistry II and General Chemistry II Laboratory	4
DN A275	Introduction to Culinary Medicine	3
PSY A111	Introduction to Psychology	3
	Credits	**16**
Third Year		
Fall		
BIOL A240 & A240L	Introductory Microbiology for Health Sciences and Introductory Microbiology for Health Sciences Laboratory	4
CHEM A321	Organic Chemistry I	3
DN A301	Nutrition Assessment	3
DN A312	Nutrition Communication and Counseling	3
DN A325	Food & Nutrition in Modern Alaska	3
	Credits	**16**
Spring		
DN A350	Foodservice Systems and Quantity Foods	4
DN A355	Weight Management and Eating Disorders	3
STAT A200	Elementary Statistics	3
GER Fine Arts		3
Elective		3
	Credits	**16**
Fourth Year		
Fall		
CHEM A441	Principles of Biochemistry I	3
DN A360	Sports Nutrition	3
DN A401	Medical Nutrition Therapy I	3
DN A430	Research Methods in Nutrition and Dietetics	3
DN A492	Senior Seminar in Dietetics	1
	Credits	**13**
Spring		
DN A402	Medical Nutrition Therapy II	4
DN A415	Community Nutrition	3
DN A450	Dietetic Management	3
DN A475	Advanced Nutrition	3
DN A492	Senior Seminar in Dietetics	1
	Credits	**14**
	Total Credits	**122**

[1] *Choose a course that also fulfills the Alaska-Native Themed GER or Intercultural Fluency GER.*

Occupational Endorsement Certificate in Diversity and Social Justice

Admission to this program is currently suspended. Contact the College of Health for more information.

Associate of Applied Science in Fire and Emergency Services Technology

The Associate of Applied Science (AAS) in Fire and Emergency Services Technology (FEST) prepares students for employment in the fire service and other emergency services organizations.

Students will also receive preparation to continue study in the fields of paramedicine, nursing, physician assistant or other allied health professions. This program provides entry-level knowledge and skills for students planning a career in emergency services. It also can provide career advancement and professional development for those already employed in the emergency services field.

Licensure and/or Certification

- Students that complete EMT A130 and meet FEST and State of Alaska requirements are eligible to test for the State of Alaska and National certification for EMT I.
- Students that complete EMT A230 and meet FEST and State of Alaska requirements are eligible to test for the State of Alaska EMT II certification.
- Students that complete EMT A231 and meet FEST and State of Alaska requirements are eligible to test for the State of Alaska EMT III certification.
- Students that complete EMT A235 and meet FEST and State of Alaska requirements are eligible to test for National Advanced Emergency Medical Technician (AEMT) and apply for State of Alaska AEMT certification.
- Students that complete FIRE A131, FIRE A133, FIRE A135 and FIRE A137 and meet FEST and State of Alaska requirements are eligible to test for Firefighter I certification.
- Students that meet FEST and State of Alaska requirements are eligible to test for Fire Investigator certification.

This program is designed to meet the educational requirements for professional licensure or certification in the State of Alaska. However, the program might not meet the educational requirements for professional licensure or certification in other states. Please see UAA's Licensure and Certification website (https://www.uaa.alaska.edu/academics/office-of-academic-affairs/licensure.cshtml/) for more information.

Admission Requirements

- Complete the Admission Requirements for Associate Degrees (p. 46).

Special Considerations

Practicum placement may require background checks, proof of immunizations, liability release forms, proof of health insurance, and other requirements as dictated by individual sites.

Graduation Requirements

- Complete the General University Requirements for Associate Degrees (p. 441).
- Complete the General Education Requirements for Associate of Applied Science Degrees (p. 441).
  - For the Quantitative Skills requirement MATH A105 or higher is recommended.
- Complete the following major requirements with a minimum grade of C in all FIRE and EMT courses:

Code	Title	Credits
Core Courses		
Natural Science General Education Requirement with lab		4
Social Science General Education Requirement		3
EMT A130	Emergency Medical Technician I	8
FIRE A101	Principles of Emergency Services	3
FIRE A105	Fire Prevention	3
FIRE A121	Fire Behavior and Combustion	3
FIRE A206	Building Construction Issues Related to Fire Protection	3
FIRE A214	Fire Protection Systems	3
FIRE A221	Principles of Fire and Emergency Services Safety and Survival	3
FIRE A295	Fire and Emergency Services Practicum [1]	3
Electives		
Complete 12 credits of electives. These electives can be from the FEST program listed below (FIRE and EMT) or advisor-approved electives: [2]		12
EMT A230	Emergency Medical Technician II	
EMT A231	Emergency Medical Technician III	
FIRE A131	Firefighter I, Series I	
FIRE A133	Firefighter I, Series II	
FIRE A135	Firefighter I, Series III	
FIRE A137	Firefighter I, Series IV	
FIRE A151	Wildland Fire Control I	
FIRE A190	Selected Topics in Fire and Emergency Services	
FIRE A201	Principles of Emergency Management	
Total		**48**

1 *Placement in FIRE A295 requires department approval and will require various forms of documentation, which may include background checks, proof of immunizations, release forms, proof of insurance and others as dictated by individual sites.*

2 *Advisor-approved electives will have a fire/emergency services relevance or will be preparatory classes for other healthcare-related fields of study (e.g. paramedic, nursing, physician assistant, etc.).*

A minimum of 60 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with an Associate of Applied Science in Fire and Emergency Services Technology will be able to:

- Discuss the history, support organizations, resources, incident management, training and emergency operations and relate how each plays a role within emergency services.
- Define and use basic terms and concepts associated with the chemistry and dynamics of fire.
- Relate how fire prevention and fire inspections are connected.
- Demonstrate the importance of public education in relation to fire prevention.
- Identify the equipment and systems used in control and extinguishment of fire.
- Identify the types of building construction and their uniqueness under fire conditions and how these components are related to firefighter and life safety.
- Relate how the basic principles and history related to the national firefighter life safety initiatives foster the need for cultural and behavioral change throughout the emergency services.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
FIRE A101	Principles of Emergency Services	3
FIRE A105	Fire Prevention	3
MATH A105 or higher		3
WRTG A111 or higher		3
GER Oral Communication Skills		3
	Credits	**15**
Spring		
EMT A130	Emergency Medical Technician I	8
FIRE A121	Fire Behavior and Combustion	3
GER Written Communication Skills		3
	Credits	**14**
Second Year		
Fall		
FIRE A214	Fire Protection Systems	3
FIRE A221	Principles of Fire and Emergency Services Safety and Survival	3
GER Social Sciences		3
Program Elective		6
	Credits	**15**
Spring		
FIRE A206	Building Construction Issues Related to Fire Protection	3
FIRE A295	Fire and Emergency Services Practicum	3
GER Natural Sciences w/Lab		4
Program Elective		6
	Credits	**16**
	Total Credits	**60**

Occupational Endorsement Certificate in Gerontology

The Occupational Endorsement Certificate (OEC) in Gerontology prepares students for the public health challenges of an aging population and the provision of competent care for older patients in medical settings, and to provide community resources and support to older adults and their family caregivers facing the end of life. This program will broaden the range of trained professionals in the senior care workforce across non-profit, tribal, and public sectors, as well as introduce students to the concept of specializing in geriatric medicine and/or a research career in gerontology. This OEC can be counted as elective credits toward the Bachelor of Science in Human Services program, or other degree programs with permission.

Admission Requirements

- Complete the Admission Requirements for Occupational Endorsement Certificates (p. 46).

Graduation Requirements

- Complete the General University Requirements for Occupational Endorsement Certificates (p. 440).
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
COHI A420	Physical Activity and Aging	3
or HUMS A416	Substance Misuse Disorders and the Older Adult	
or SWK A473	Direct Practice in Elder Care	
or SWK A673	Direct Practice in Elder Care	
HS A305	Public Health for an Aging Society	3
HS A320	Death, Dying, and End-of-Life Care	3
PSY A150	Lifespan Development	3
PSY A450	Adult Development and Aging	3
Total		**15**

A minimum of 15 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with an Occupational Endorsement Certificate in Gerontology will be able to:

- Identify the main behavioral, social, and environmental factors that influence age-related outcomes of the aging population and the individual older adult.
- Critique and analyze assumptions, stereotypes, prejudice, and discrimination related to age (ageism) at both personal and public levels.
- Describe current strategies for disease prevention, including the key components of person-centered care and end-of-life care models, to generate contextually accurate recommendations for health promotion of older adults.

Occupational Endorsement Certificate in Guardianship

The Occupational Endorsement Certificate (OEC) in Guardianship prepares students for careers as public guardians in Alaska. The certificate is designed to provide students with an understanding of the social, legal, and policy context of guardianship and its variations in Alaska. The OEC in Guardianship emphasizes engaging in effective and ethical management of guardianship cases, ensuring accountability, sensitivity to complex needs, and cultural responsiveness.

Admission Requirements

- Complete the Admission Requirements for Occupational Endorsement Certificates (p. 46).

Graduation Requirements

- Complete the General University Requirements for Occupational Endorsement Certificates (p. 440).
- Complete the following major requirements:

Code	Title	Credits
HUMS A241	Understanding Guardianship and Conservatorship	3
HUMS A242	Guardianship: Legal Process, Legal Forms and the Parties	3
HUMS A243	Guardianship: Understanding Community Resources & Benefits	3
HUMS A244	Advanced Decision-Making, Ethics, and Preparing a Guardianship Business	3
HUMS A295C	Guardianship Practicum	4
Total		**16**

A minimum of 16 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with an Occupational Endorsement Certificate in Guardianship will be able to:

- Demonstrate the process of applying for a guardianship or conservatorship appointment and the statutory obligations of an appointed guardian.
- Describe how the Court monitors all guardians and conservators on an ongoing basis, and how to complete and file necessary reports to the court.
- Demonstrate how to manage a client’s finances, including developing the proper bank accounts, budgets, and managing income and expenses.
- Demonstrate the process of closing out a guardianship case and the various reasons why a case may be dismissed.

Bachelor of Science in Health Sciences

The Department of Health Sciences takes a multi-disciplinary approach to preparing students for careers in several health sciences professions including health education and health promotion, public and community health, health care delivery, and rehabilitative sciences. The Bachelor of Science in Health Sciences (BSHS) offers two specialized tracks:

- Health Educator track
- Pre-professional track, with emphases in preparing for cooperative graduate programs (University of Washington/UAA Physician Assistant Program, Creighton University/UAA Occupational

Therapy Program, UAA/ISU Doctor of Pharmacy, WWAMI School of Medical Education)

Applicants who hold an Associate of Applied Science degree in Medical Assisting, Physical Therapist Assistant, Radiologic Technology, Paramedical Technology, and/or Diagnostic Medical Sonography are encouraged to meet with the BSHS program coordinator to discuss a degree completion pathway option that may provide a more rapid pathway toward earning a four year degree.

Health Educator Track

The health educator track of the BSHS provides training in the competencies for health educators identified by the 2020 National Health Educators Competencies and qualifies students to take the Certified Health Educator Specialist (CHES) exam. In addition, it provides education in population-based health and includes a community health education practicum. The health educator track provides a good foundation for careers or graduate study in health education, health promotion, public health and population health sciences. This track is also an appropriate option for students interested in preparing for public health, speech-language pathology, and occupational therapy graduate programs.

Admission Requirements

- Complete the Admission Requirements for Baccalaureate Degrees (p. 46).

Field Practicum

The practicum provides students with an opportunity to apply health sciences and health education knowledge and skills to specific assigned projects within a community health organization. Placements may become competitive. The Department of Health Sciences makes every effort to find appropriate field placements for students; however, admittance does not guarantee acceptance by cooperating health agencies.

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (p. 442).
- Complete the General Education Requirements for Baccalaureate Degrees (p. 443).
  - For the Quantitative Skills requirement, choose STAT A200 or STAT A253.
  - For the Oral Communication Skills requirement, choose COMM A241.
  - For the Social Sciences requirement, choose PSY A150.
  - For the Natural Sciences requirement; choose BIOL A111 and BIOL A111L, and BIOL A112 and BIOL A112L.
  - For the Alaska Native-Themed requirement, choose AKNS A201.
  - For the Diversity & Inclusion requirement, choose SWK A243.
  - For the Integrative Capstone requirement, choose HS A492.
- Complete the following major requirements:

Code	Title	Credits
Core Courses		
COMM A300	Health Communication	3
HLTH A151	Breaking Trail on Your Health and Social Services Career	3
HS A210	Introduction to Environmental Health	3
HS A220	Introduction to Population Health Sciences	3
HS A230	Introduction to Global Health	3
HS A305	Public Health for an Aging Society	3
HS A326	Introduction to Epidemiology	3
HS A345	Planning and Management of Health Programs	3
HS A370	Social and Cultural Determinants of Health	3
HS A420	Program Evaluation	3
HS A433	Health Education: Theory and Practice	3
HS A485	Professional Preparation in Health Sciences	3
HS A492	Senior Seminar: Contemporary Health Policy	3
HS A495	Health Sciences Practicum	3
KIN A384	Cultural and Psychological Aspects of Health and Physical Activity	3
MA A101	Medical Terminology	3
MA A104	Essentials of Human Disease	3
PHIL A302	Biomedical Ethics	3
PSY A261	Research Methods in Psychology	3
Support Courses		
AKNS A201	Alaska Native Perspectives	3
BIOL A111 & A111L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Lab	4
BIOL A112 & A112L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Lab	4
BIOL A240	Introductory Microbiology for Health Sciences	3
COMM A241	Public Speaking	3
DN A151	Nutrition Through the Life Cycle	3
or DN A203	Nutrition for Health Sciences	
PSY A111	Introduction to Psychology	3
PSY A150	Lifespan Development	3
STAT A200	Elementary Statistics	3-4
or STAT A253	Applied Statistics for the Sciences	
or PSY A260 & A260L	Statistics for Psychology and Statistics for Psychology Lab	

SWK A243	Diversity, Equity and Inclusion through Community Service Learning	3
Complete one course from the Natural Sciences GER list in a discipline other than biology.		3
Advisor-approved electives		15
Total		**107-108**

A minimum of 120 credits is required for this degree, of which 39 must be upper-division.

Pre-professional Track

The BSHS pre-professional (PP) track provides training in public health and health promotion along with preparation for occupational therapy (OT), physical therapy (PT), physician assistant (PA), medical school, pharmacy, or other professional health-related graduate programs.

Prerequisites for graduate programs vary across graduate schools. The BSHS PP track includes most prerequisites for many OT, PT, PA, medical school, and pharmacy graduate programs with special focus on UA partner graduate programs. However, students must check the prerequisites for the schools they plan to attend in order to ensure that they meet all admission requirements. Students are encouraged to meet with an academic or faculty advisor early in their academic program to assist with course selection.

Admission Requirements

- Complete the Admission Requirements for Baccalaureate Programs (p. 46).

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (p. 442).
- Complete the General Education Requirements for Baccalaureate Degrees (p. 443).
  - For the Quantitative Skills requirement, choose STAT A200 or STAT A253.
  - For the Oral Communication Skills requirement, choose COMM A241
  - For the Social Sciences requirement, choose PSY A150.
  - For the Natural Sciences requirement; choose BIOL A111 and BIOL A111L, and BIOL A112 and BIOL A112L.
  - For the Alaska Native-Themed requirement, choose AKNS A201.
  - For the Diversity & Inclusion requirement, choose SWK A243.
  - For the Integrative Capstone requirement, choose HS A492.
- Complete the following major requirements:

Code	Title	Credits
Core Courses		
COMM A300	Health Communication	3
HLTH A151	Breaking Trail on Your Health and Social Services Career	3
HS A210	Introduction to Environmental Health	3
HS A220	Introduction to Population Health Sciences	3
HS A230	Introduction to Global Health	3
HS A305	Public Health for an Aging Society	3
HS A326	Introduction to Epidemiology	3
HS A345	Planning and Management of Health Programs	3
HS A370	Social and Cultural Determinants of Health	3
HS A420	Program Evaluation	3
HS A433	Health Education: Theory and Practice	3
HS A492	Senior Seminar: Contemporary Health Policy	3
HS A485	Professional Preparation in Health Sciences	3
PHIL A302	Biomedical Ethics	3
Support Courses		
AKNS A201	Alaska Native Perspectives	3
BIOL A108	Principles and Methods in Biology	6
BIOL A111 & A111L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Lab	4
BIOL A112 & A112L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Lab	4
CHEM A105 & A105L	General Chemistry I and General Chemistry I Laboratory	4
DN A203	Nutrition for Health Sciences	3
PSY A150	Lifespan Development	3
STAT A200	Elementary Statistics	3-4
or STAT A253	Applied Statistics for the Sciences	
Advisor-approved Electives		24
Total		**96-97**

A minimum of 120 credits is required for this degree, of which 39 must be upper-division.

Program Student Learning Outcomes

Graduates of the BSHS Health Educator track will be able to:

- Assess individual and/or community needs and/or capacity for health promotion.
- Plan effective health promotion programs and interventions for target populations.
- Implement health promotion interventions.
- Evaluate health promotion programs and/or interventions.

- Coordinate resources and relationships with stakeholders and partners.
- Communicate evidence-based health information effectively.
- Articulate the role of public health in inter-professional healthcare teams.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

Sample Plan Health Educator Track

First Year		
Fall		**Credits**
HLTH A151	Breaking Trail on Your Health and Social Services Career	3
MA A101	Medical Terminology	3
STAT A200 or STAT A253	Elementary Statistics or Applied Statistics for the Sciences	3-4
WRTG A111	Writing Across Contexts	3
GER Humanites		3
	Credits	**15-16**
Spring		
BIOL A111 & A111L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Lab	4
COMM A241	Public Speaking	3
MA A104	Essentials of Human Disease	3
GER Fine Arts		3
GER Written Communication Skills		3
	Credits	**16**
Second Year		
Fall		
BIOL A112 & A112L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Lab	4
DN A151 or DN A203	Nutrition Through the Life Cycle or Nutrition for Health Sciences	3
HS A210	Introduction to Environmental Health	3
HS A220	Introduction to Population Health Sciences	3
PSY A111	Introduction to Psychology	3
	Credits	**16**
Spring		
AKNS A201	Alaska Native Perspectives	3
BIOL A240	Introductory Microbiology for Health Sciences	3
HS A230	Introduction to Global Health	3
PSY A150	Lifespan Development	3
SWK A243	Diversity, Equity and Inclusion through Community Service Learning	3
	Credits	**15**
Third Year		
Fall		
COMM A300	Health Communication	3
HS A305	Public Health for an Aging Society	3
HS A326	Introduction to Epidemiology	3
PSY A261	Research Methods in Psychology [1]	3
GER Natural Science (other than Biology)		3
	Credits	**15**
Spring		
HS A345	Planning and Management of Health Programs	3
HS A370	Social and Cultural Determinants of Health	3
KIN A384	Cultural and Psychological Aspects of Health and Physical Activity	3
PHIL A302	Biomedical Ethics	3
Program Elective [1]		3
	Credits	**15**

Fourth Year		
Fall		
HS A420	Program Evaluation	3
HS A433	Health Education: Theory and Practice	3
HS A485	Professional Preparation in Health Sciences	3
Program Elective [1]		3
Program Elective [1]		3
	Credits	**15**
Spring		
HS A492	Senior Seminar: Contemporary Health Policy	3
HS A495	Health Sciences Practicum	3
Elective (if needed)		1
Program Elective [1]		3-4
Upper Division Program Elective [1]		3
	Credits	**13-14**
	Total Credits	**120-122**

[1] *Requires department approval*

Sample Plan Pre-Professional Track

First Year		
Fall		**Credits**
BIOL A111 & A111L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Lab	4
HLTH A151	Breaking Trail on Your Health and Social Services Career	3
STAT A200 or STAT A253	Elementary Statistics or Applied Statistics for the Sciences	3-4
WRTG A111	Writing Across Contexts	3
GER Humanites		3
	Credits	**16-17**
Spring		
BIOL A112 & A112L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Lab	4
COMM A241	Public Speaking	3
HS A210	Introduction to Environmental Health	3
GER Fine Arts		3
GER Written Communication Skills		3
	Credits	**16**
Second Year		
Fall		
AKNS A201	Alaska Native Perspectives	3
CHEM A105 & A105L	General Chemistry I and General Chemistry I Laboratory	4
HS A220	Introduction to Population Health Sciences	3
HS A230	Introduction to Global Health	3
PSY A150	Lifespan Development	3
	Credits	**16**
Spring		
BIOL A108	Principles and Methods in Biology	6
DN A203	Nutrition for Health Sciences	3
SWK A243	Diversity, Equity and Inclusion through Community Service Learning	3
Program Elective [1]		3
	Credits	**15**
Third Year		
Fall		
COMM A300	Health Communication	3
HS A305	Public Health for an Aging Society	3
HS A326	Introduction to Epidemiology	3
PHIL A302	Biomedical Ethics	3
Program Elective [1]		3
	Credits	**15**
Spring		
HS A345	Planning and Management of Health Programs	3
HS A370	Social and Cultural Determinants of Health	3
Program Elective [1]		3
Program Elective [1]		3
Program Elective [1]		3
	Credits	**15**
Fourth Year		
Fall		
HS A420	Program Evaluation	3
HS A433	Health Education: Theory and Practice	3
HS A485	Professional Preparation in Health Sciences	3
Program Elective [1]		3
Upper Division Program Elective [1]		3
	Credits	**15**
Spring		
HS A492	Senior Seminar: Contemporary Health Policy	3
Program Elective [1]		3
Upper Division Elective		3
Upper Division Program Elective [1]		3
	Credits	**12**
	Total Credits	**120-121**

[1] *Requires department approval*

Associate of Applied Science in Human Services

The Associate of Applied Science (AAS) in Human Services prepares students for a broadly defined field, uniquely approaching the objective of meeting human needs through an interdisciplinary knowledge base.

This degree program focuses on prevention, remediation of problems, and maintaining a commitment to improving the overall quality of life of service populations.

The Associate of Applied Science in Human Services is accredited by the Council for Standards in Human Service Education (CSHSE).

Admission Requirements

- Complete the Admission Requirements for Associate Degrees (p. 46).

Graduation Requirements

- Complete the General University Requirements for Associate Degrees (p. 441).
- Complete the General Education Requirements for Associate of Applied Science Degrees (p. 441).
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
HUMS A107	History of Systems of Change	3
HUMS A122	Substance Use Disorder in Alaska	3
HUMS A155	Field Work and Human Service Practice	3
HUMS A225	Counseling in Human Service Practice	3
HUMS A253	Human Services and Disabilities	3
HUMS A255	Group Work in Human Service Practice	3
HUMS A288	Case Management in Human Services Practice	3
HUMS A295A	Human Services Practicum I	3
HUMS A295B	Human Services Practicum II	3
HUMS A321	Diversity Issues in Human Services Practice	3
PSY A150	Lifespan Development	3
or PSY A200	Introduction to Behavior Analysis	
Complete 9 credits from the list below or other 100, 200, or 300 HUMS courses, including special topic courses. (Consultation with faculty advisor recommended):		9
HUMS A125	Prevention of High Risk Behaviors in Adolescents	
HUMS A200	Introduction to Children's Behavioral Health	
HUMS A205	Teaching Behavioral Support and Social Skills to Youth	
HUMS A206	Understanding Mental Health Diagnosis, Treatment, and Interventions in Children's Behavioral Health	
HUMS A207	Trauma Informed Work with Children	
HUMS A224	Systems of Conflict and Collaboration	
HUMS A301	Substance Abuse Prevention	
Total		**42**

A minimum of 60 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with an Associate of Applied Science in Human Services will be able to:

- Apply the skills and competencies necessary to assess clients' individual needs: develop and implement a plan of action.
- Demonstrate knowledge of the National Organization for Human Services (NOHS) Standards for Ethical Behavior in their professional work.
- Demonstrate active listening, and counseling skills, dealing effectively with conflict, clarifying expectations, and establishing rapport.
- Apply knowledge to working in community-based human services organizations.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (https://uaa-alaska-test.courseleaf.com/academicpoliciesprocesses/academicstandardsregulations/courseplacement/), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (https://uaa-alaska-test.courseleaf.com/undergraduateprograms/baccalaureaterequirements/gers/). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.

- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
HUMS A107	History of Systems of Change	3
HUMS A122	Substance Use Disorder in Alaska	3
HUMS A225	Counseling in Human Service Practice	3
GER Quantitative Skills		3
GER Written Communication Skills		3
	Credits	**15**
Spring		
HUMS A155	Field Work and Human Service Practice	3
PSY A150 or PSY A200	Lifespan Development or Introduction to Behavior Analysis	3
GER Oral Communication Skills		3
GER Written Communication Skills		3
Program Elective		3
	Credits	**15**
Second Year		
Fall		
HUMS A255	Group Work in Human Service Practice	3
HUMS A288	Case Management in Human Services Practice	3
HUMS A295A	Human Services Practicum I	3
Elective		3
Program Elective		3
	Credits	**15**
Spring		
HUMS A253	Human Services and Disabilities	3
HUMS A295B	Human Services Practicum II	3
HUMS A321	Diversity Issues in Human Services Practice	3
Elective		3
Program Elective		3
	Credits	**15**
	Total Credits	**60**

Bachelor of Human Services

The Bachelor of Human Services (BHS) prepares students to understand and apply the skills and knowledge for effective work with clients from diverse populations and with diverse needs. These skills and knowledge include: interviewing and assessment, case planning, family mediation and conflict resolution, critical thinking, and ethical standards.

The Bachelor of Human Services is accredited by the Council for Standards in Human Service Education (CSHSE).

Admission Requirements

- Complete the Admission Requirements for Baccalaureate Programs (p. 46).

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (p. 442).
- Complete the General Education Requirements for Baccalaureate Degrees (p. 443).
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
Core Courses		
HUMS A107	History of Systems of Change	3
HUMS A122	Substance Use Disorder in Alaska	3
HUMS A155	Field Work and Human Service Practice	3
HUMS A225	Counseling in Human Service Practice	3
HUMS A253	Human Services and Disabilities	3
HUMS A255	Group Work in Human Service Practice	3
HUMS A288	Case Management in Human Services Practice	3
HUMS A295A	Human Services Practicum I	3
HUMS A295B	Human Services Practicum II	3
HUMS A321	Diversity Issues in Human Services Practice	3
HUMS A325	Case Management in Complex Systems	3
HUMS A333	Alternative Dispute Resolution	3
HUMS A334	Family Mediation	3
HUMS A355	Approaches for Working with Individual Clients	3
HUMS A356	The Dynamics of Human Service Organizations	3
HUMS A412	Ethical Issues in Human Services Practice	3
HUMS A417	Advanced Recovery Practice in Substance Use Treatment	3

HUMS A464	Leadership and Diversity in Contemporary Society	3
HUMS A491	Qualitative Research and Evaluation in a Multicultural Environment	3
HUMS A495	Human Services Practicum III	3
HUMS A496	Human Services Integrative Capstone	3
LEGL A340	Family Law	3
PSY A150	Lifespan Development	3
or PSY A200	Introduction to Behavior Analysis	
Electives		
Complete 18 credits from the following, 6 of which must be upper division. Courses from other disciplines may be substituted with advisor approval.		18
HUMS A181	Peer Support and Recovery Practices In Behavioral Health	
HUMS A200	Introduction to Children's Behavioral Health	
HUMS A206	Understanding Mental Health Diagnosis, Treatment, and Interventions in Children's Behavioral Health	
HUMS A224	Systems of Conflict and Collaboration	
HUMS A285	Professional Communication in Human Service Practice	
HUMS A290	Selected Topics in Human Service Practice	
HUMS A390	Selected Topics in Human Service Practice	
HUMS A416	Substance Misuse Disorders and the Older Adult	
HUMS A441	Intersectionality - An Approach to Cultural Practice	
HUMS A442	Privilege & Oppression: Equity and Equality in America	
HUMS A455	Crisis Intervention and Trauma Informed Practice	
HUMS A490	Selected Topics in Human Services Practice	
Total		**87**

A minimum of 120 credits is required for the degree, of which 39 credits must be upper-division.

Honors in Human Services

The Bachelor of Human Services (BHS) recognizes distinguished achievement by conferring programmatic honors in human services. In order to receive honors in human services, a student must meet the following requirements:

- Complete all requirements for the BHS. A minimum of 30 credits applicable to the BHS must be completed at UAA;
- Achieve a minimum GPA of 3.50 in upper-division (300 and 400-level) Human Services courses;
- Submit an intent to graduate with honors application to the BHS Program Director during the semester prior to the semester in which they intend to graduate.

Program Student Learning Outcomes

Students graduating with the Bachelor in Human Services will be able to:

- Demonstrate knowledge of the history of human services, how various types of services evolved, and the forces that influenced their development.
- Demonstrate skills in assessing needs and providing direct and indirect services to individuals, families, groups, and communities.
- Demonstrate knowledge of the main theories that provide the conceptual framework and underlying philosophy of the Human Services bachelor's degree program.
- Apply the National Organization for Human Services (NOHS) Standards for Ethical Behavior to their professional work.
- Demonstrate skills in research design, data collection, analysis, and evaluation.
- Demonstrate a high level of self-awareness, knowledge, and skills in the complexities of multiculturalism.
- Demonstrate skills to effectively intervene with individuals from diverse populations.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.

- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
HUMS A107	History of Systems of Change	3
HUMS A122	Substance Use Disorder in Alaska	3
HUMS A225	Counseling in Human Service Practice	3
WRTG A111	Writing Across Contexts	3
GER Quantitative Skills		3-4
	Credits	**15-16**
Spring		
HUMS A155	Field Work and Human Service Practice	3
PSY A150 or PSY A200	Lifespan Development or Introduction to Behavior Analysis	3
GER Oral Communication Skills		3
GER Written Communication Skills (200-level)		3
Program Elective		3
	Credits	**15**
Second Year		
Fall		
HUMS A255	Group Work in Human Service Practice	3
HUMS A288	Case Management in Human Services Practice	3
HUMS A295A	Human Services Practicum I	3
GER Fine Arts		3
Program Elective		3
	Credits	**15**
Spring		
HUMS A224	Systems of Conflict and Collaboration	3
HUMS A253	Human Services and Disabilities	3
HUMS A295B	Human Services Practicum II	3
HUMS A321	Diversity Issues in Human Services Practice	3
Program Elective		3
	Credits	**15**
Third Year		
Fall		
HUMS A333	Alternative Dispute Resolution	3
HUMS A355	Approaches for Working with Individual Clients	3
HUMS A412	Ethical Issues in Human Services Practice	3
GER Natural Sciences w/Lab		4
GER Alaska Native-Themed		3
	Credits	**16**
Spring		
HUMS A325	Case Management in Complex Systems	3
HUMS A334	Family Mediation	3
GER Humanities		3
GER Natural Sciences		3
Upper Division Program Elective		3
	Credits	**15**
Fourth Year		
Fall		
HUMS A356	The Dynamics of Human Service Organizations	3
HUMS A491	Qualitative Research and Evaluation in a Multicultural Environment	3
HUMS A495	Human Services Practicum III	3
LEGL A340	Family Law	3
GER Humanities		3
	Credits	**15**
Spring		
HUMS A417	Advanced Recovery Practice in Substance Use Treatment	3
HUMS A464	Leadership and Diversity in Contemporary Society	3
HUMS A496	Human Services Integrative Capstone	3
GER Social Sciences		3
Upper Division Program Elective		3
	Credits	**15**
	Total Credits	**121-122**

Minor in Human Services

Students majoring in another subject who wish to minor in human services must complete the following requirements. Consultation with an advisor in the Department of Human Services is highly recommended.

Code	Title	Credits
Complete 18 credits from the following, 9 of which must be upper-division.		18
HUMS A107	History of Systems of Change	
HUMS A224	Systems of Conflict and Collaboration	
HUMS A225	Counseling in Human Service Practice	
HUMS A288	Case Management in Human Services Practice	
HUMS A290	Selected Topics in Human Service Practice	

HUMS A321	Diversity Issues in Human Services Practice
HUMS A333	Alternative Dispute Resolution
HUMS A334	Family Mediation
HUMS A390	Selected Topics in Human Service Practice
HUMS A455	Crisis Intervention and Trauma Informed Practice
HUMS A490	Selected Topics in Human Services Practice
HUMS elective with advisor approval	
Total	**18**

A minimum of 18 credits is required for the minor, of which 9 must be upper-division.

Occupational Endorsement Certificate in Indian Child Welfare Act

The Occupational Endorsement Certificate in Indian Child Welfare Act (ICWA) prepares students for working with children and families in the child welfare system who are directly impacted by the provisions of ICWA. This program is a cross-college and cross-department collaboration between the Department of Alaska Native Studies in the UAA College of Arts and Sciences and the Department of Human Services in the UAA College of Health. Post-graduation opportunities include careers in child welfare, child protection agencies, and tribal organizations.

Admission Requirements

- Complete the Admission Requirements for Occupational Endorsement Certificates (p. 46).

Graduation Requirements

- Complete the General University Requirements for Occupational Endorsement Certificates (p. 440).
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
AKNS A201	Alaska Native Perspectives	3
AKNS A375	Principles of Federal Indian Law and Policy	3
HUMS A254	Finding My Way Home: Place Identity & Historical Trauma	3
HUMS A325	Case Management in Complex Systems	3
Advisor approved elective [1]		3
Total		**15**

[1] *Students will be encouraged to take a course in an Alaska Native language, but may choose a selected topics course. Students lacking job experience will be encouraged to take a selected topics course that provides a shadow experience of 16-24 hours in a community agency that deals with ICWA cases.*

A minimum of 15 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with an Occupational Endorsement Certificate in Indian Child Welfare Act will be able to:

- Demonstrate skills and knowledge necessary to promote culturally appropriate services to Alaskan families;
- Explore the role of caregivers in the case management process;
- Describe the concept of place identity and its importance.

Occupational Endorsement Certificate in Interprofessional Child Welfare

The Occupational Endorsement Certificate (OEC) in Interprofessional Child Welfare prepares students for careers in tribal and state child welfare services and to gain skills essential to becoming effective members of interprofessional child welfare teams. Students will complete practicum placements in the Alaska Office of Children's Services, tribal organizations, or other related child welfare service delivery systems. All courses in the OEC in Interprofessional Child Welfare are available through e-learning and can be counted as elective credits for students enrolled in the BSW program and other degree programs with their permission.

Admission Requirements

- Complete the Admission Requirements for Occupational Endorsement Certificates (p. 46).
- Be eligible for employment in Alaska with vulnerable people.
- Approval of the OEC in Interprofessional Child Welfare Coordinator.

Graduation Requirements

- Complete the General University Requirements for Occupational Endorsement Certificates (p. 440).
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
SWK A401	Foundations: Child Welfare Practice I	3
SWK A402	Theory and Intervention: Child Welfare Practice II	3
SWK A403	Applied Practice and Professional Skills: Child Welfare Practice III	3
SWK A492	Interprofessional Child Welfare Integrative Seminar	2

SWK A495C	Child Welfare Practicum (Can be waived with advisor approval) *	8
Total		**19**

* *SWK A495A or SWK A495B can be used by students in Bachelor of Social Work program with advisor approval*

A minimum of 19 credits is required for the certificate.

Program Student Learning Outcomes

Students graduating with an Occupational Endorsement Certificate in Interprofessional Child Welfare will be able to:

- Produce clear written/oral communication
- Relate respectfully in inter & intra-agency customer service
- Demonstrate professionalism
- Conduct client interactions using cultural humility
- Show professional productivity
- Demonstrate resiliency and crisis management
- Facilitate team and family collaboration
- Demonstrate engagement; implementation and provision of service; and assessment

Bachelor of Science in Kinesiology

Kinesiology is the study of human movement and functionality. The Bachelor of Science (BS) in Kinesiology prepares students for professional positions in the rapidly growing healthcare, fitness, physical education, recreation, and rehabilitation fields or for graduate studies. Graduates can work in clinical, educational, corporate, or therapeutic organizations.

Admission Requirements

- Complete the Admission Requirements for Baccalaureate Degrees (p. 46).

Special Considerations

- Students are required to complete two 1-credit practicum experiences in the community (sophomore and junior year).
- Students are required to complete 240-hours of internship (6 credits of KIN A495).

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (p. 442).
- Complete the General Education Requirements for Baccalaureate Degrees (p. 443).
  - For Quantitative Skills GERs MATH A121, MATH A151, or STAT A200 are recommended.
  - For Social Sciences GERs BA A151 and (PSY A111 or PSY A150) are recommended.
- Earn a minimum overall GPA of 2.75.
- Complete the following major requirements:

Code	Title	Credits
BA A151	Business Foundations	3
BIOL A111 & A111L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Lab	4
BIOL A112 & A112L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Lab	4
DN A203	Nutrition for Health Sciences	3
or DN A360	Sports Nutrition	
KIN A181	Introduction to Kinesiology	3
KIN A182	Fundamentals of Biomechanics	2
KIN A280	Leadership in Kinesiology	3
KIN A281	Leadership in Activities for Special Populations	2
KIN A282	Leadership in Initiative Activities	2
KIN A284	Leadership in Fitness Activities	2
KIN A286	Leadership in Recreation and Sport Activities	2
KIN A287	Leadership in Outdoor Recreation Activities	2
KIN A289	Prevention and Care of Activity-Related Injuries	3
KIN A295A	Practicum I	1
KIN A382	Kinesiology and Biomechanics	4
KIN A383	Movement Theory and Motor Development	3
KIN A384	Cultural and Psychological Aspects of Health and Physical Activity	3
KIN A385	Physiology of Exercise	4
KIN A386	Current Issues in Health and Wellness	3
KIN A395	Practicum II	1
KIN A484	Exercise Testing and Prescription	4
KIN A486	Standards and Assessment in Kinesiology	3
KIN A487	Administration and Supervision in Kinesiology	3
KIN A495	Internship [1]	6-12
PSY A111	Introduction to Psychology	3
or PSY A150	Lifespan Development	
Advisor approved electives [2]		18
Total		**91-97**

[1] *KIN A495 must be completed with a minimum grade of B.*

[2] *Advisor approved electives cannot include KIN A260, KIN A263, KIN A364, KIN A366, KIN A465, or KIN A468.*

A minimum of 120 credits is required for the degree, of which 39 credits must be upper-division.

Honors in Kinesiology

The Bachelor of Science in Kinesiology recognizes distinguished achievement by conferring programmatic honors in kinesiology. In order to receive honors in kinesiology, a student must meet the following requirements:

- Meet the requirements for Graduating with Honors (p. 30);
- Meet the requirements for a Bachelor of Science in Kinesiology;
- Earn an overall minimum GPA of 3.50;
- Complete an advisor-approved project.

Students should notify their faculty advisor, in writing, of their intention to graduate with honors before submission of the Application for Graduation.

Program Student Learning Outcomes

Students graduating with a Bachelor of Science in Kinesiology will be able to:

1. Apply kinesiology-related concepts, theories, and frameworks to health, wellness, and quality of life.
2. Critically evaluate research related to physical activity and its impact on health and chronic disease.
3. Design, implement and evaluate physical activity programs based on relevant standards and research that promote health and quality of life for diverse populations.
4. Demonstrate effective leadership skills in varied contexts as demonstrated by
   a. Writing outcomes
   b. Selecting appropriate activities including progression, modification, and variation
   c. Motivational activities
   d. Venue selection and suitability
   e. Safety/risk management
5. Advocate for, and demonstrate the importance of, a physically active lifestyle personally and professionally as a means to improve quality of life and reduce the risk and prevalence of lifestyle-related diseases.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
BIOL A111 & A111L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Lab	4
KIN A181	Introduction to Kinesiology	3
GER Humanities [1]		3
GER Quantitative Skills		3
GER Written Communication Skills		3
	Credits	**16**
Spring		
BIOL A112 & A112L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Lab	4
KIN A182	Fundamentals of Biomechanics	2
PSY A111 or PSY A150	Introduction to Psychology or Lifespan Development	3
GER Oral Communication Skills		3
GER Written Communication Skills		3
	Credits	**15**
Second Year		
Fall		
BA A151	Business Foundations	3

KIN A280	Leadership in Kinesiology	3
KIN A281	Leadership in Activities for Special Populations	2
KIN A284	Leadership in Fitness Activities	2
KIN A287	Leadership in Outdoor Recreation Activities	2
GER Humanities		3
	Credits	**15**
Spring		
KIN A282	Leadership in Initiative Activities	2
KIN A286	Leadership in Recreation and Sport Activities	2
KIN A289	Prevention and Care of Activity-Related Injuries	3
KIN A295A	Practicum I	1
GER Fine Arts		3
Program Elective		3
	Credits	**14**
Third Year		
Fall		
DN A360	Sports Nutrition	3
KIN A382	Kinesiology and Biomechanics	4
KIN A386	Current Issues in Health and Wellness	3
Program Elective		3
Program Elective		3
	Credits	**16**
Spring		
KIN A383	Movement Theory and Motor Development	3
KIN A385	Physiology of Exercise	4
KIN A395	Practicum II	1
Program Elective		3
Upper Division Elective		3
	Credits	**14**
Fourth Year		
Fall		
KIN A384	Cultural and Psychological Aspects of Health and Physical Activity	3
KIN A484	Exercise Testing and Prescription	4
KIN A486	Standards and Assessment in Kinesiology	3
Program Elective		3
Upper Division Elective		3
	Credits	**16**
Spring		
KIN A487	Administration and Supervision in Kinesiology	3
KIN A495	Internship	6-12
Elective		2
Program Elective		3
	Credits	**14-20**
	Total Credits	**120-126**

[1] *Choose a course that also fulfills the Alaska-Native Themed GER.*

Bachelor of Arts in Legal Studies

The Bachelor of Arts (BA) in Legal Studies provides students with a broad educational background in American law and policy that prepares them well for a lifetime of informed civic participation. Students will also acquire the technical skills and specialized knowledge that will enable them to build a career working in federal and state agencies or court systems, in a variety of legal service settings, in private law offices or corporate legal departments, and in a multitude of other public and private organizations where familiarity with government regulation and legal processes is required. The program also lays the academic foundation for students who later wish to advance to graduate programs in law or public policy. The program is approved by the American Bar Association.

Please note that students obtaining the BA in Legal Studies are not authorized to provide direct legal services to the public. The program offers training for paraprofessionals who are authorized to perform substantive legal work under the supervision of a licensed attorney. The program does not train lawyers.

Admission Requirements

- Complete the Admission Requirements for Baccalaureate Degrees (p. 46).

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (p. 442).
- Complete the General Education Requirements for Baccalaureate Degrees (p. 443).
- Courses used to fulfill the Social Sciences General Education Requirement must be taken outside the legal studies major.
- Take the Legal Studies Exit Examination. There is no minimum score required for graduation.
- Complete the following major requirements with a minimum grade of C in Legal Studies (LEGL) courses:

Code	Title	Credits
Oral Communication Skills		
Complete one of the following (with a minimum grade of C):		3
COMM A111	Fundamentals of Oral Communication	
COMM A235	Small Group Communication	
COMM A237	Interpersonal Communication	
COMM A241	Public Speaking	
Written Communication Skills		

WRTG A111	Writing Across Contexts	3
Complete one of the following (with a minimum grade of B):		3
WRTG A211	Writing and the Humanities	
WRTG A212	Writing and the Professions	
WRTG A213	Writing and the Sciences	
WRTG A214	Arguing Across Contexts	
Complete one of the following (with a minimum grade of B):		3
ENGL A311	Writing in Public Life	
ENGL A312	Technical Writing and Design	
ENGL A313	Professional Writing	
ENGL A414	Research Writing	
Core Courses		
LEGL A101	Introduction to Law	3
LEGL A215	Legal Ethics and the Role of the Legal Professional	3
LEGL A352	Criminal Law: Murder, Robbery, and Other Crimes	3
LEGL A356	Legal Research, Analysis, and Writing	3
LEGL A367	Civil Procedure and Pretrial Practice	3
LEGL/JUST A374	The Courts	3
LEGL A377	Evidence, Investigation, and Discovery	3
LEGL A487	Trial and Advanced Litigation Processes	3
LEGL A489	Legal Studies Senior Seminar	3
Complete one of the following:		3
LEGL A312	Race, Equal Protection and the Law	
LEGL A315	Law, History and Social Change	
LEGL/PS A343	Constitutional Law	
LEGL A443	Civil Liberties	
Electives		
Complete 15-17 credits (12 upper-division) of Legal Studies (LEGL) electives, or from the following list: [1]		15-17
ATA A133	Aviation Law and Regulations	
BA A241	Business Law I	
BA A242	Business Law II	
BA A432	Real Estate Law	
CM A401	Construction Law	
GEO A267	Boundary Law I	
GEO A457	Boundary Law II	
JPC A202	First Amendment and Media Ethics	
PHIL A406	Philosophy of Law	
Internship		
Complete at least 3 credits of the following:		3-6
LEGL A495	Legal Studies Internship	
Total		**60-65**

[1] *Upper division law courses from the justice curriculum may be used to satisfy this requirement with department approval. Only 6 credits of JUST A490 may be used to satisfy elective requirements for the Bachelor of Arts in Legal Studies.*

A minimum of 120 credits is required for the degree, of which 39 credits must be upper-division.

Pro Bono Service Honors

The Justice Center recognizes distinguished achievement by conferring pro bono service honors to those legal studies students who work toward improving access to justice by contributing volunteer service to Alaska legal aid agencies. In order to receive pro bono service honors, a student must meet the following requirements:

- Major in any of the legal studies programs, as well as legal studies minors;
- Meet the catalog requirements for the minor, degree or certificate sought;
- Complete the following number of volunteer hours with a legal services agency approved by the department's program coordinator:
  - Bachelor of Arts in Legal Studies: 120 hours
- Students intending to graduate with pro bono service honors must obtain written verification of their hours of service from the legal service agency or agencies assisted;
- In the semester they intend to graduate, students must submit their verification of service hours and written notice of their intent to graduate with pro bono service honors to the department's program coordinator. The verification and notice must be received by the coordinator on or before the date established by the Office of the Registrar as the deadline to apply for graduation.

Program Student Learning Outcomes

Students graduating with a Bachelor of Arts in Legal Studies will be able to:

1. Demonstrate understanding of fundamental principles of the legal discovery process.
2. Conduct effective and comprehensive legal research using commonly available legal research databases.
3. Analyze statutes, case law, and secondary sources and synthesize into convincing legal arguments.
4. Draft standard legal documents in accordance with commonly used stylistic conventions in legal practice.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student’s plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses.

Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
LEGL A101	Introduction to Law	3
WRTG A111	Writing Across Contexts	3
GER Fine Arts		3
GER Oral Communication Skills		3
GER Quantitative Skills		3
	Credits	**15**
Spring		
LEGL A215	Legal Ethics and the Role of the Legal Professional	3
GER Humanities		3
GER Social Sciences [1]		3
Elective		3
Program Elective (Written Communication: WRTG A211 or WRTG A212 or WRTG A213 or WRTG A214)		3
	Credits	**15**
Second Year		
Fall		
LEGL A374	The Courts	3
GER Humanities		3
Elective		3
Program Elective		3
Upper Division Program Elective (Advanced Written Communication: ENGL A311 or ENGL A312 or ENGL A313 or ENGL A414)		3
	Credits	**15**
Spring		
LEGL A352	Criminal Law: Murder, Robbery, and Other Crimes	3
LEGL A356	Legal Research, Analysis, and Writing	3
GER Natural Sciences		3
GER Social Sciences [1]		3
Upper Division Program Elective		3
	Credits	**15**
Third Year		
Fall		
LEGL A367	Civil Procedure and Pretrial Practice	3
LEGL A377	Evidence, Investigation, and Discovery	3
GER Alaska Native-Themed		3
GER Natural Sciences w/Lab		4
Upper Division Program Elective (LEGL A312 or LEGL A315 or LEGL/PS A343 or LEGL A443)		3
	Credits	**16**
Spring		
LEGL A487	Trial and Advanced Litigation Processes	3
GER Intercultural Fluency		3
Elective		3
Upper Division Program Elective [2]		3
Upper Division Program Elective [2]		3
	Credits	**15**
Fourth Year		
Fall		
LEGL A495	Legal Studies Internship	3-6
GER Integrative Capstone		3
Elective		3
Elective		3
Upper Division Program Elective [2]		3
	Credits	**15-18**
Spring		
LEGL A489	Legal Studies Senior Seminar	3
Elective		3
Elective		3
Elective		3
Elective		3
	Credits	**15**
	Total Credits	**121-124**

[1] *Courses used to fulfill the GER Social Sciences must be taken outside the legal studies major*

[2] *Only 6 credits of JUST A490 may be used to satisfy this requirement.*

Minor in Legal Studies

The legal studies minor provides broad exposure to the American legal system, with flexibility for students to explore specific areas of interest. The legal studies minor is not approved by the American Bar Association for paralegal education. Students seeking technical legal skills appropriate for employment as a paralegal should pursue other legal studies degree options.

Please note that students obtaining a legal studies minor are not authorized to provide direct legal services to the public. The legal studies program does not train lawyers.

Advising

- Legal studies courses applied toward the legal studies minor cannot also be applied toward a Bachelor of Arts in Criminology and Criminal Justice.
- Students must declare their minor with, or prior to, their application for graduation.
- A minimum grade of C in each course is required. Courses may be repeated twice to improve grades.

Graduation Requirements

Students seeking a baccalaureate degree in another subject may obtain a Minor in Legal Studies by completing the minor requirements set out below with a minimum grade of C:

Code	Title	Credits
LEGL A101	Introduction to Law	3
LEGL A235	Wrongful Convictions	3
or LEGL A352	Criminal Law: Murder, Robbery, and Other Crimes	
or LEGL A354	Criminal Procedure: Rights of the Accused	
Complete one of the following:		3
LEGL A315	Law, History and Social Change	
LEGL/PS A343	Constitutional Law	
LEGL/JUST A374	The Courts	
LEGL A443	Civil Liberties	
Upper-division Legal Studies (LEGL) electives [1]		9
Total		**18**

[1] *Upper-division courses listed above that are not already used may count towards electives.*

A minimum of 18 credits is required for the minor, 9 of which must be upper-division.

Associate of Applied Science in Medical Assisting

The Associate of Applied Science (AAS) in Medical Assisting prepares students to work as entry-level medical assistants. Medical assistants are multi-skilled allied health professionals specifically trained to work in ambulatory settings, such as physicians' offices, clinics and outpatient care centers. These multi-skilled personnel can perform administrative and clinical procedures.

Admission Requirements

- Complete the Admission Requirements for Associate Degrees (p. 46).

Special Considerations

Prior to beginning MA A295, students must provide documentation of the following:

- Immunizations:
  - Annual TB screening using the Mantoux method or PPD two-step testing process:
    - the first step must have been completed within twelve (12) months prior to the commencement of the student's supervised, clinical experience; and
    - the second step must have been completed within one to three weeks after the first step was administered
  - Hepatitis B immunity
  - Hepatitis B series, two MMRs, two varicella, or proof of immunization
  - Current influenza vaccination
  - Other immunizations specifically required by the practicum clinical site
- Current Basic Life Support (BLS) certification
- Completion of State of Alaska criminal background check and fingerprinting
- Some practicum clinical sites may require additional documentation such as a drug screen; each requirement is site-specific

Additionally:

- Medical assisting courses are sequenced and only offered during certain semesters
- Students are strongly encouraged to maintain personal medical insurance
- MA A295 is a required course. It is a 6-week/240 hour commitment to full-time on-the-job education that is non-remunerated (unpaid).
- Individuals who have been found guilty of a felony, or plead guilty to a felony, are not eligible to take the CMA (AAMA)® examination; however, a waiver may be granted by the American Association of Medical Assistants (AAMA) Certifying Board in cases of mitigating circumstances.

Graduation Requirements

- Complete the General University Requirements for Associate Degrees (p. 441).
- Complete the General Education Requirements for Associate of Applied Science Degrees (p. 441).
- Complete all required MA courses with a minimum grade of C.
- Complete the following major requirements:

Code	Title	Credits
Core Courses		
BADA A105	Introduction to Personal Computers and Application Software	3
BIOL A100	Human Biology	3-8
or BIOL A111 & A111L & BIOL A112 & BIOL A112L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Lab and Human Anatomy and Physiology II and Human Anatomy and Physiology II Lab	
MA A101	Medical Terminology	3
MA A104	Essentials of Human Disease	3
MA A120	Administrative Procedures	4
MA A220	Medical Office Coding	3
MA A235	Medical Insurance, Billing and Healthcare Documentation	3
MA A250 & A250L	Clinical Procedures I and Clinical Procedures Lab I	4
MA A255 & A255L	Clinical Procedures II and Clinical Procedures Lab II	4
MA A295	Medical Assisting Practicum	5
PSY A150	Lifespan Development	3
Electives		
Complete a minimum of 7 credits from the following or other advisor approved electives:		7
DN A151	Nutrition Through the Life Cycle	
DN A155	Survey of Alaska Native Nutrition	
DN A203	Nutrition for Health Sciences	
DN A325	Food & Nutrition in Modern Alaska	
EMT A110	Emergency Trauma Technician	
EMT A130	Emergency Medical Technician I	
HLTH A151	Breaking Trail on Your Health and Social Services Career	
HS A210	Introduction to Environmental Health	
HS A220	Introduction to Population Health Sciences	
HS A230	Introduction to Global Health	
MA A320	Medical Office Advanced Coding	
MEDT A132	Phlebotomy and Specimen Processing Techniques	
MEDT A132L	Phlebotomy and Specimen Processing Techniques Lab	
MEDT A195A	Phlebotomy Practicum	
MEDT A250	Cultural Diversity in Health Care	
NURS A101	Introduction to Nursing	
PHAR A101	Introduction to Pharmacy	
PHIL A302	Biomedical Ethics	
Total		**45-50**

A minimum of 60 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with an Associate of Applied Science in Medical Assisting will be able to:

- Demonstrate entry-level psychomotor, affective and cognitive curriculum content areas of medical assisting.
- Exhibit professional and ethical behavior in the healthcare setting.
- Demonstrate a commitment to the profession through the successful completion of the Medical Assisting Practicum course.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum

total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
COMM A111	Fundamentals of Oral Communication	3
MATH A104 or MATH A105	Technical Mathematics or Intermediate Algebra	3-4
PSY A150	Lifespan Development	3
WRTG A111	Writing Across Contexts	3
	Credits	**12-13**
Spring		
BADA A105	Introduction to Personal Computers and Application Software	3
BIOL A100	Human Biology	3
MA A101	Medical Terminology	3
GER Written Communication Skills		3
Elective		3
	Credits	**15**
Second Year		
Fall		
MA A104	Essentials of Human Disease	3
MA A120	Administrative Procedures	4
MA A250 & A250L	Clinical Procedures I and Clinical Procedures Lab I	4
Program Elective		3
	Credits	**14**
Spring		
MA A220	Medical Office Coding	3
MA A235	Medical Insurance, Billing and Healthcare Documentation	3
MA A255 & A255L	Clinical Procedures II and Clinical Procedures Lab II	4
Program Elective		4
	Credits	**14**
Summer		
MA A295	Medical Assisting Practicum	5
	Credits	**5**
	Total Credits	**60-61**

Occupational Endorsement Certificate in Medical Assisting

The Occupational Endorsement Certificate (OEC) in Medical Assisting prepares students to work as entry-level medical assistants. Medical assistants are multi-skilled allied health professionals specifically trained to work in ambulatory settings, such as physicians' offices, clinics and outpatient care centers. These versatile professionals can perform administrative and clinical procedures. Through their education and hands-on training, students will build their knowledge and skills to work within their scope of practice.

Students who have completed the program are encouraged to sit for the CMA (AAMA)® examination in order to practice at the full scope of practice.

The Medical Assisting Certificate program is accredited by the Commission on Accreditation of Allied Health Education Programs upon the recommendation of the Medical Assisting Education Review Board (MAERB).

Admission Requirements

- Complete the Admission Requirements for Occupational Endorsement Certificates (p. 46).

Special Considerations

Prior to beginning MA A295, students must provide documentation of the following:

- Immunizations:
  - Annual TB screening using the Mantoux method or PPD two-step testing process:
    - the first step must have been completed within twelve (12) months prior to the commencement of the student's supervised, clinical experience; and
    - the second step must have been completed within one to three weeks after the first step was administered.
  - Hepatitis B immunity.
  - Hepatitis B series, two MMRs, two varicella, or proof of immunization.
  - Current influenza vaccination.
  - Other immunizations specifically required by the practicum clinical site.
- Current Basic Life Support (BLS) certification.
- Completion of State of Alaska criminal background check and fingerprinting.
- Some practicum clinical sites may require additional documentation such as a drug screen. Each requirement is site-specific.

Additionally:

- Medical assisting courses are sequenced and only offered during certain semesters.
- Students are strongly encouraged to maintain personal medical insurance.
- MA A295 is a required course. It is a 6-week/240-hour commitment to full-time on-the-job education that is non-remunerated (unpaid).
- Individuals who have been found guilty of a felony, or plead guilty to a felony, are not eligible to take the CMA (AAMA)® examination. However, a waiver may be granted by the American Association of Medical Assistants (AAMA) Certifying Board in cases of mitigating circumstances.

Graduation Requirements

- Complete the General University Requirements for Occupational Endorsement Certificates (p. 440).
- Complete all required MA courses with a minimum grade of C.
- Complete the following major requirements:

Code	Title	Credits
Core Courses		
MA A101	Medical Terminology	3
MA A104	Essentials of Human Disease	3
MA A120	Administrative Procedures	4
MA A235	Medical Insurance, Billing and Healthcare Documentation	3
MA A250 & A250L	Clinical Procedures I and Clinical Procedures Lab I	4
MA A255 & A255L	Clinical Procedures II and Clinical Procedures Lab II	4
MA A295	Medical Assisting Practicum	5
PSY A150	Lifespan Development	3
Total		**29**

A minimum of 29 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with an Occupational Endorsement Certificate in Medical Assisting will be able to:

- Demonstrate entry-level psychomotor, affective and cognitive curriculum content areas of medical assisting.
- Exhibit professional and ethical behavior in the healthcare setting.
- Demonstrate a commitment to the profession through the successful completion of the Medical Assisting Practicum course.

Bachelor of Science in Medical Laboratory Science

The National Accrediting Agency for Clinical Laboratory Sciences provides the following description for medical laboratory scientist: At career entry, the medical laboratory scientist will be proficient in performing clinical laboratory tests in areas such as hematology, clinical chemistry, immunohematology, microbiology, serology/immunology, coagulation, and molecular and other emerging diagnostics, and will be able to play a role in the development and evaluation of test systems and interpretive algorithms. Graduates will have diverse responsibilities in areas of analysis and clinical decision-making, regulatory compliance with applicable regulations, education, and quality assurance/performance improvement. They will also possess basic knowledge, skills and relevant experience in:

- Communications to enable consultative interactions with members of the health care team, external relations, customer service and patient education.
- Financial operations, marketing and human resource management of the clinical laboratory to enable cost-effective, high-quality, value-added laboratory services.
- Information management to enable effective, timely, accurate and cost-effective reporting of laboratory-generated information.
- Research design/practice sufficient to evaluate published studies as an informed consumer.

Upon graduation and initial employment, the medical laboratory scientist should be able to demonstrate entry-level competencies in the above areas of professional practice. Graduates are eligible to sit for national certification examinations in medical laboratory science after completion of the program.

The Medical Laboratory Scientist performs and makes clinical decisions in urinalysis, hematology, microbiology, transfusion services, and clinical chemistry. This provides valuable patient information to assist in medical diagnosis and treatment. The Medical Laboratory Science program prepares students to become skilled members of the healthcare team.

The Bachelor of Science (BS) Medical Laboratory Science degree articulates with the undergraduate Medical Laboratory Technician degree program. The BS Medical Laboratory Science program is accredited through the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS).

Admission Requirements

- Complete the Admission Requirements for Baccalaureate Degrees (p. 46).
- A cumulative high school or postsecondary GPA of 2.5.
- 3 years of high school science, with a recommendation for Anatomy and Physiology or Human Biology, or the postsecondary equivalent.
- 3 years of high school math, with an emphasis on algebra, trigonometry, geometry, and analysis, and placement into MATH A151 or higher, or the postsecondary equivalent.
- Apply through the UAA Admissions process, which will ask you to submit the above documentation and respond to application questions.
- Once you apply to the program, submit all required documentation, and respond to the application questions, there will be an interview with the program admissions committee.

Special Consideration

Prior to beginning practicum courses, student must provide documentation of:

- The following immunizations: Hepatitis B titer showing immunity, Hepatitis A, MMR, TDaP, Varicella, Influenza vaccine within the previous 12 months, PPD test or Quantiferon Gold
- Current Basic Life Support certification
- State of Alaska background check
- Current health insurance (must be maintained throughout time in practicum)

Practicum sites may establish additional requirements including, but not limited to, drug screening and health physicals.

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (p. 442).
- Complete the General Education Requirements for Baccalaureate Degrees (p. 443).
- Complete MEDT A250 and MEDT A495 with a minimum grade of C.
- Complete the following major requirements:

Code	Title	Credits
BIOL A111 & A111L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Lab	4
BIOL A112 & A112L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Lab	4
CHEM A103 & A103L	Introduction to General Chemistry and Introduction to General Chemistry Laboratory	4
or CHEM A105 & A105L	General Chemistry I and General Chemistry I Laboratory	
CHEM A104 & A104L	Introduction to Organic and Biochemistry and Introduction to Organic and Biochemistry Laboratory	4-7
or CHEM A106 & A106L & CHEM A321	General Chemistry II and General Chemistry II Laboratory and Organic Chemistry I	
MATH A151	College Algebra for Calculus	4
or any MATH course for which MATH A151 is a prerequisite		
PHIL A302	Biomedical Ethics	3
or PHIL A305	Professional Ethics	
STAT A200	Elementary Statistics	3-4
or STAT A253	Applied Statistics for the Sciences	
or any STAT course for which STAT A200 or STAT A253 is a prerequisite		
MEDT A132 & A132L	Phlebotomy and Specimen Processing Techniques and Phlebotomy and Specimen Processing Techniques Lab	4
MEDT A133	Basic Techniques in Laboratory Medicine	2
MEDT A134	Immunology and Serology	3
MEDT A202	Clinical Chemistry	4
MEDT A203	Clinical Microbiology	6
MEDT A204	Hematology and Coagulation	6
MEDT A208	Urine and Body Fluid Analysis	3
MEDT A211	Blood Banking	4
MEDT A250	Cultural Diversity in Health Care	1
MEDT A301	Molecular and Emerging Diagnostics	3
MEDT A302	Clinical Laboratory Education and Management	4
MEDT A303	Advanced Clinical Microbiology	6
MEDT A306	Advanced Immunology and Blood Banking	3
MEDT A307	Clinical Correlations	2
MEDT A401	Introduction to Research	2
MEDT A495	Medical Laboratory Science Practicum	22-23
or MEDT A395 & MEDT A495	Medical Laboratory Technology Practicum and Medical Laboratory Science Practicum	
Total		**101-106**

A minimum of 122 credits is required for the degree, of which 39 credits must be upper-division.

Honors in Medical Laboratory Science

The Bachelor of Science in Medical Laboratory Science recognizes distinguished achievement by conferring programmatic honors in medical laboratory science. In order to receive honors in medical laboratory science, a student must meet the following requirements:

1. Meet the requirements for a BS in Medical Laboratory Science.
2. Earn a grade point average of 3.50 or higher in courses applicable to the degree requirements. Only UAA and transfer courses taken within the last seven years will be included in the GPA for departmental honors.
3. Obtain approval to enroll in the honors elective from the program director.
4. Pass the honors elective course, MEDT A402.

Program Student Learning Outcomes

At career entry, the Medical Laboratory Scientist

- Demonstrate entry-level competencies for medical laboratory scientists in the following disciplines: hematology, chemistry, immunology, blood bank, urine and body fluid analysis, microbiology, and laboratory operations.
- Demonstrate professional behavior including sound work ethics, cultural responsiveness and appearance while interacting with patients and health care professionals.
- Evaluate published studies as an informed consumer.
- Demonstrate continuing competency by certification maintenance.
- Use educator skills to create and deliver an instructional unit.
- Use laboratory management skills to plan, organize, staff and cost out a new clinical laboratory service.
- Demonstrate a commitment to the laboratory profession through active involvement in a professional organization.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
BIOL A111 & A111L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Lab	4
CHEM A103 & A103L	Introduction to General Chemistry and Introduction to General Chemistry Laboratory	4
MATH A151	College Algebra for Calculus	4
GER Written Communication Skills		3
	Credits	**15**
Spring		
BIOL A112 & A112L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Lab	4
CHEM A104 & A104L	Introduction to Organic and Biochemistry and Introduction to Organic and Biochemistry Laboratory	4
WRTG A212 or WRTG A213	Writing and the Professions or Writing and the Sciences	3
GER Oral Communication Skills		3
	Credits	**14**
Second Year		
Fall		
MEDT A132 & A132L	Phlebotomy and Specimen Processing Techniques and Phlebotomy and Specimen Processing Techniques Lab	4
MEDT A133	Basic Techniques in Laboratory Medicine	2
MEDT A134	Immunology and Serology	3
MEDT A250	Cultural Diversity in Health Care	1
GER Social Sciences		3
	Credits	**13**
Spring		
AKNS A201	Alaska Native Perspectives	3
MEDT A204	Hematology and Coagulation	6
MEDT A211	Blood Banking	4
STAT A200 or STAT A253	Elementary Statistics or Applied Statistics for the Sciences	3-4
	Credits	**16-17**
Third Year		
Fall		
MEDT A202	Clinical Chemistry	4
MEDT A203	Clinical Microbiology	6
MEDT A208	Urine and Body Fluid Analysis	3
GER Social Sciences		3
	Credits	**16**
Spring		
MEDT A301	Molecular and Emerging Diagnostics	3
MEDT A303	Advanced Clinical Microbiology	6
MEDT A306	Advanced Immunology and Blood Banking	3
	Credits	**12**
Fourth Year		
Fall		
MEDT A302	Clinical Laboratory Education and Management	4
MEDT A307	Clinical Correlations	2
MEDT A401	Introduction to Research	2
PHIL A305	Professional Ethics	3
GER Fine Arts		3
	Credits	**14**

Spring		
MEDT A495	Medical Laboratory Science Practicum	11
	Credits	**11**
Summer		
MEDT A495	Medical Laboratory Science Practicum	11
	Credits	**11**
	Total Credits	**122-123**

Associate of Applied Science in Medical Laboratory Technology

The National Accrediting Agency for Clinical Laboratory Sciences provides the following description: At career entry, the medical laboratory technician will be able to perform routine clinical laboratory tests (such as hematology, clinical chemistry, immunohematology, microbiology, serology/immunology, coagulation, molecular and other emerging diagnostics) as the primary analyst making specimen-oriented decisions on predetermined criteria, including a working knowledge of critical values. Communication skills will extend to frequent interactions with members of the health care team, external relations, customer service and patient education. The level of analysis ranges from waived and point-of-care testing to complex testing encompassing all major areas of the clinical laboratory. The medical laboratory technician will have diverse functions in areas of pre-analytical, analytical and post-analytical processes. The medical laboratory technician will have responsibilities for information processing, training and quality control monitoring wherever clinical laboratory testing is performed.

Upon graduation and initial employment, the medical laboratory technician should be able to demonstrate entry-level competencies in the above areas of professional practice. Graduates are eligible to sit for national certification examinations in medical laboratory technology.

The medical laboratory technician performs testing in urinalysis, hematology, microbiology, transfusion services, and clinical chemistry. This provides valuable patient information to assist in medical diagnosis and treatment. The medical laboratory technology program prepares students to become skilled members of the healthcare team.

The Associate of Applied Science (AAS) in Medical Laboratory Technology is accredited through the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS).

The AAS in Medical Laboratory Technology articulates with the Bachelor of Science (BS) in Medical Laboratory Science.

Admission Requirements

- Complete the Admission Requirements for Associate Degrees (p. 46).
- A cumulative high school or postsecondary GPA of 2.5
- 3 years of high school science, with a recommendation for Anatomy and Physiology or Human Biology, or the postsecondary equivalent
- 3 years of high school math, with an emphasis on algebra, trigonometry, geometry, and analysis, and placement into MATH A105 or higher, or the postsecondary equivalent
- Apply through the UAA Admissions process, which will ask you to submit the above documentation and respond to application questions.
- Once you apply to the program, submit all required documentation, and respond to the application questions, there will be an interview with the program admissions committee.

Special Considerations

Prior to beginning practicum courses, students must provide documentation of:

- The following immunizations: Hepatitis B titer showing immunity, Hepatitis A, MMR, TDap, Varicella, Influenza vaccine within the previous twelve months, and two-step PPD test or Quantiferon Gold
- Current Basic Life Support certification
- State of Alaska Background Check
- Current health insurance (must be maintained throughout time in practicum)

Practicum sites may establish additional requirements including, but not limited to, drug screening and health physicals.

Graduation Requirements

- Complete the General University Requirements for Associate Degrees (p. 441).
- Complete the General Education Requirements for Associate of Applied Science Degrees (p. 441).
- Complete MEDT A250 and MEDT A395 with a minimum grade of C.
- Complete the following major requirements:

Code	Title	Credits
BIOL A111 & A111L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Lab	4
BIOL A112 & A112L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Lab	4
CHEM A103 & A103L	Introduction to General Chemistry and Introduction to General Chemistry Laboratory	4
or CHEM A105 & A105L	General Chemistry I and General Chemistry I Laboratory	
CHEM A104 & A104L	Introduction to Organic and Biochemistry and Introduction to Organic and Biochemistry Laboratory	4-7
or CHEM A106 & A106L & CHEM A321	General Chemistry II and General Chemistry II Laboratory and Organic Chemistry I	

MEDT A132 & A132L	Phlebotomy and Specimen Processing Techniques and Phlebotomy and Specimen Processing Techniques Lab	4
MEDT A133	Basic Techniques in Laboratory Medicine	2
MEDT A134	Immunology and Serology	3
MEDT A202	Clinical Chemistry	4
MEDT A203	Clinical Microbiology	6
MEDT A204	Hematology and Coagulation	6
MEDT A208	Urine and Body Fluid Analysis	3
MEDT A211	Blood Banking	4
MEDT A250	Cultural Diversity in Health Care	1
MEDT A395	Medical Laboratory Technology Practicum	12
Total		**61-64**

A minimum of 73 credits is required for the degree.

Program Student Learning Outcomes

At career entry, the medical laboratory technician as part of the healthcare team, will be able to:

- Perform routine clinical laboratory tests in the area of urinalysis, hematology, clinical chemistry, transfusion services, and microbiology
- Demonstrate professional and communication skills to support interaction with members of the medical team, customer service, patient care and education
- Demonstrate safety standards according to Occupational Safety and Health Administration, American Association of Blood Banks, American Society for Clinical Pathology and Clinical Laboratory Improvement Amendments
- Demonstrate ethical behavior in the hospital or clinical settings.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
BIOL A111 & A111L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Lab	4
CHEM A103 & A103L	Introduction to General Chemistry and Introduction to General Chemistry Laboratory	4
MATH A151	College Algebra for Calculus	4
GER Written Communication Skills		3
	Credits	**15**
Spring		
BIOL A112 & A112L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Lab	4
CHEM A104 & A104L	Introduction to Organic and Biochemistry and Introduction to Organic and Biochemistry Laboratory	4
GER Oral Communication Skills		3
GER Written Communication Skills		3
	Credits	**14**
Second Year		
Fall		
MEDT A132 & A132L	Phlebotomy and Specimen Processing Techniques and Phlebotomy and Specimen Processing Techniques Lab	4
MEDT A133	Basic Techniques in Laboratory Medicine	2
MEDT A134	Immunology and Serology	3
MEDT A250	Cultural Diversity in Health Care	1
	Credits	**10**
Spring		
MEDT A204	Hematology and Coagulation	6

MEDT A211	Blood Banking	4
	Credits	**10**
Third Year		
Fall		
MEDT A202	Clinical Chemistry	4
MEDT A203	Clinical Microbiology	6
MEDT A208	Urine and Body Fluid Analysis	3
	Credits	**13**
Spring		
MEDT A395	Medical Laboratory Technology Practicum [1]	12
	Credits	**12**
	Total Credits	**74**

[1] *Students cannot take any additional UAA courses while enrolled in MEDT A395.*

Occupational Endorsement Certificate in Medical Office Coding

Medical office coders work in medical office and outpatient settings coding medical records for statistical and reimbursement purposes.

This program prepares students to work as medical coders in outpatient settings. The program is based upon the American Academy of Professional coders (AAPC) recommendations. Upon successful completion of the program, students are prepared to sit for the AAPC's Certified Professional Coder (CPC) examination. Students who successfully pass the AAPC's Certified Professional Coder (CPC) examination (https://www.aapc.com/certification/cpc/#tab-4) will be granted initial apprenticeship status.

Admission Requirements

- Complete the Admission Requirements for Occupational Endorsement Certificates (p. 46).

Graduation Requirements

- Complete the General University Requirements for Occupational Endorsement Certificates (p. 440).
- Complete following major requirements with a minimum grade of C:

Code	Title	Credits
Core Courses		
MA A101	Medical Terminology	3
MA A104	Essentials of Human Disease	3
MA A220	Medical Office Coding	3
MA A320	Medical Office Advanced Coding	2
Support Courses [1]		
Complete a minimum of 6 credits from the following:		6
BIOL A100	Human Biology	
BIOL A111 & A111L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Lab	
BIOL A112 & A112L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Lab	
MA A235	Medical Insurance, Billing and Healthcare Documentation	
Total		**17**

[1] *Support courses must be approved by the department advisor.*

A minimum of 17 credits is required for the degree.

Program Student Learning Outcomes

After successful completion of this program the students will be able to demonstrate the following:

- Proficiency in the performance of Current Procedural Terminology (CPT) coding.
- Proficiency in the performance of Healthcare Common Procedure Coding System (HCPCS) coding.
- Proficiency in the performance of International Classification of Diseases, Clinical Modification diagnostic coding.

Associate of Applied Science in Nursing

Graduates of the Associate of Applied Science (AAS) in Nursing are prepared to use the nursing process to provide effective nursing services to individuals receiving care in inpatient settings and in structured outpatient settings. The academic program provides students with a closely related mix of theory and clinical practice; students gain experience in hospitals, nursing homes, clinics, and community agencies.

The associate, baccalaureate, master's, post-master's certificate nursing programs at University of Alaska Anchorage at the Alaska campuses located in Anchorage, Alaska is accredited by the: Accreditation Commission for Education in Nursing (ACEN).

Accreditation Commission for Education in Nursing (https://www.acenursing.org/)

3390 Peachtree Road NE, Suite 1400
Atlanta, Georgia 30326
Phone: (404) 975-5000

The most recent accreditation decision made by the ACEN Board of Commissioners for the associate, baccalaureate, master's, post-master's certificate nursing program is continuing accreditation.

View the public information disclosed by the ACEN regarding this program at https://www.acenursing.org/ search-programs (https://www.acenursing.org/search-programs/).

Licensure and/or Certification

Graduates of the AAS in Nursing must sit for and pass the National Council Licensure Examination for Registered Nurses (NCLEX-RN) to practice nursing in structured inpatient and outpatient healthcare settings such as hospitals, nursing homes, clinics and community agencies.

This program is designed to meet the educational requirements for professional licensure or certification in the State of Alaska. However, the program might not meet the educational requirements for professional licensure or certification in other states. Please see UAA's Licensure and Certification website (https://www.uaa.alaska.edu/academics/office-of-academic-affairs/licensure.cshtml/) for more information.

Admission Requirements

- Complete the Admission Requirements for Associate Degrees (p. 46).
- Review and complete the admission process according to instructions and deadlines on the School of Nursing program website.
  - Students will initially be admitted to pre-major status. Admission to pre-major status does not guarantee subsequent admission to the major. As a pre-major, students work with an academic advisor to assist them in completing pre-major requirements and preparing them to apply to the full major.

Special Considerations

Prior to the commencement of the nursing program, students must provide documentation for the following:

- **Immunizations:** Proof of rubella, rubeola, and mumps vaccination or titer; varicella (chickenpox) vaccination or titer; Hepatitis B titer demonstrating immunity; Hepatitis A titer demonstrating immunity; diphtheria/tetanus vaccine within the past ten years; influenza vaccine within the previous twelve months.
- **Freedom from active tuberculosis:** Verified annually by a negative PPD skin test or by a health examination conducted by a nurse practitioner, physician, or physician's assistant.
- **Current certification in cardiopulmonary resuscitation (CPR):** Required for infants, children, and adults.
- **Additional requirements:** May include, but are not limited to, drug screening, additional vaccinations, and/or clinical facility-specific requirements.
- **Eligibility determination from a national-level criminal background check.**
- **Professional liability insurance:** Specific information regarding acceptable policies can be obtained directly from the program.
- **Proof of health insurance:** The school assumes no responsibility for illnesses and injuries experienced by students during their clinical experiences; students who are injured while completing clinical assignments are responsible for all associated medical costs.

Furthermore, students enrolled in clinical courses must arrange their own transportation to clinical assignments and will need to purchase uniforms and specialized equipment.

Graduation Requirements

- Complete the General University Requirements for Associate Degrees (p. 441).
- Complete the General Education Requirements for Associate of Applied Science Degrees (p. 441).
- Complete the following major requirements with a minimum grade of C in all nursing courses:

Code	Title	Credits
BIOL A111 & A111L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Lab	4
BIOL A112 & A112L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Lab	4
BIOL A240 & A240L	Introductory Microbiology for Health Sciences and Introductory Microbiology for Health Sciences Laboratory	4
DN A203	Nutrition for Health Sciences	3
NS A230	Pathophysiology for Health Professions	3
NURS A120 & A120L	Nursing Fundamentals and Nursing Fundamentals Laboratory	7
NURS A125 & A125L	Adult Nursing I and Adult Nursing I Laboratory	7
NURS A180	Basic Nursing Pharmacology	3
NURS A220 & A220L	Perinatal Nursing and Perinatal Nursing Laboratory	4
NURS A222 & A222L	Child and Family Nursing and Child and Family Nursing Laboratory	4
NURS A223 & A223L	Concepts of Adult Nursing and Concepts of Adult Nursing Laboratory	2
NURS A225 & A225L	Adult Nursing II and Adult Nursing II Laboratory	6
NURS A250 & A250L	Psychiatric Nursing and Psychiatric Nursing Laboratory	4
NURS A260	Transition to Professional Nursing	2
PSY A150	Lifespan Development	3
Total		**60**

A minimum of 72 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with an Associate of Applied Science in Nursing will be able to:

- Utilize critical thinking skills to assess and diagnose nursing needs and to prioritize, plan, implement, and evaluate care for patients and their families in institutional and community based settings.
- Effectively communicate verbally, in writing and electronically with health team members, patients and their families.
- Plan, implement and evaluate care that is safe, evidence-based, caring, and developmentally and culturally sensitive within ethical, legal and professional standards.
- Coordinate care of small groups of patients in collaboration with other members of the health care team.
- Develop a plan for lifelong learning and continuing professional development.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
BIOL A111 & A111L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Lab	4
PSY A150	Lifespan Development	3
GER Oral Communication Skills		3
GER Quantitative Skills (recommend MATH A105)		3
GER Written Communication Skills		3
	Credits	**16**
Spring		
BIOL A112 & A112L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Lab	4
BIOL A240 & A240L	Introductory Microbiology for Health Sciences and Introductory Microbiology for Health Sciences Laboratory	4
DN A203	Nutrition for Health Sciences	3
GER Written Communication Skills		3
	Credits	**14**
Second Year		
Fall		
NURS A120 & A120L	Nursing Fundamentals and Nursing Fundamentals Laboratory	7
	Credits	**7**
Spring		
NURS A125 & A125L	Adult Nursing I and Adult Nursing I Laboratory	7
NURS A180	Basic Nursing Pharmacology	3
	Credits	**10**
Third Year		
Fall		
NURS A220 & A220L	Perinatal Nursing and Perinatal Nursing Laboratory	4
NURS A222 & A222L	Child and Family Nursing and Child and Family Nursing Laboratory	4
NURS A223 & A223L	Concepts of Adult Nursing and Concepts of Adult Nursing Laboratory	2
	Credits	**10**
Spring		
NURS A225 & A225L	Adult Nursing II and Adult Nursing II Laboratory	6
NURS A250 & A250L	Psychiatric Nursing and Psychiatric Nursing Laboratory	4
NURS A260	Transition to Professional Nursing	2
	Credits	**12**
	Total Credits	**69**

Bachelor of Science in Nursing

The School of Nursing (SON) offers two options for students seeking a Bachelor of Science in Nursing (BSN). The pre-licensure option is designed for students seeking licensure as a registered nurse (RN) within the state of Alaska; the RN student option is designed for students who hold current licensure as a RN within the state of Alaska.

The RN student option includes "RN-only" online courses and sections within the BSN designed to build upon the RN's basic preparation and experience and to facilitate progress in meeting program objectives. Those students without RN licensure are admitted as pre-licensure option students. The baccalaureate program also provides students with the academic base for graduate study in nursing. More information can be found on the SON website (https://www.uaa.alaska.edu/academics/college-of-health/departments/school-of-nursing/undergraduate-programs/).

The associate, baccalaureate, master's, post-master's certificate nursing programs at University of Alaska Anchorage at the Alaska campuses located in Anchorage, Alaska is accredited by the: Accreditation Commission for Education in Nursing (ACEN).

Accreditation Commission for Education in Nursing (https://www.acenursing.org/)
3390 Peachtree Road NE, Suite 1400
Atlanta, Georgia 30326
Phone: (404) 975-5000

The most recent accreditation decision made by the ACEN Board of Commissioners for the associate, baccalaureate, master's, post-master's certificate nursing program is continuing accreditation.

View the public information disclosed by the ACEN regarding this program at https://www.acenursing.org/ search-programs (https://www.acenursing.org/search-programs/).

Licensure and/or Certification

Graduates of the BSN are eligible to sit for the National Council Licensure Examination (NCLEX-RN) from the National Council of State Boards of Nursing (NCSBN).

This program is designed to meet the educational requirements for professional licensure or certification in the State of Alaska. However, the program might not meet the educational requirements for professional licensure or certification in other states. Please see UAA's Licensure and Certification website (https://www.uaa.alaska.edu/academics/office-of-academic-affairs/licensure.cshtml/) for more information.

Admission Requirements

- Complete the Admission Requirements for Baccalaureate Degrees (p. 46).
- All students will initially be admitted to a pre-major status. Admission to the pre-major status does not guarantee subsequent admission to the major. As a pre-major, students work with an advisor to assist them in completing pre-major requirements and preparing to apply to the full major.
- Complete, or be in progress of completing, the following courses with a minimum grade of C, within two attempts, and a minimum GPA of 3.00[1] in the following courses:
  - BIOL A111 and BIOL A111L
  - BIOL A112 and BIOL A112L
  - BIOL A240 and BIOL A240L
  - CHEM A103[2]
  - CHEM A104[2]
  - DN A203
  - HLTH A151 [2]
  - ENGL A120 [3], PHIL A101 [3], or PHIL A201 [3]
  - MATH A121, MATH A151, or an ALEKS exam score of 65 or higher[2]
  - PHIL A301 [3], PHIL A302 [3], or PHIL A305 [3]
  - PSY A150 [3]
  - STAT A200, STAT A253, STAT A307, or STAT GER course earned in transfer
  - Tier I GER courses
- Submit a Bachelor of Science Nursing application according to instructions and deadlines on the program website. (https://www.uaa.alaska.edu/academics/college-of-health/departments/school-of-nursing/undergraduate-programs/)
- Complete School of Nursing entrance exam according to directions on program website. (https://www.uaa.alaska.edu/academics/college-of-health/departments/school-of-nursing/undergraduate-programs/)

[1] *A minimum GPA of 2.00 is required for the RN student option.*
[2] *Not required for the RN student option.*
[3] *Completion of the Tier II GER courses is recommended and preferred but not required for application to full major.*

Registered Nurse (RN) Student Option Additional Admission Requirements

RNs returning to complete the BSN in the RN student option must successfully complete the admission requirements above unless otherwise noted, as well as the following:

- Hold current unencumbered license as a RN in the state of Alaska.

Special Considerations

Prior to the commencement of the nursing program, students must provide documentation for the following:

- **Immunizations:** Proof of rubella, rubeola, and mumps vaccination or titer; varicella (chickenpox) vaccination or titer; Hepatitis B titer demonstrating immunity; Hepatitis A titer demonstrating immunity; diphtheria/tetanus vaccine within the past ten years; influenza vaccine within the previous twelve months.

- **Freedom from active tuberculosis:** Verified annually by a negative PPD skin test or by a health examination conducted by a nurse practitioner, physician, or physician's assistant.
- **Current certification in cardiopulmonary resuscitation (CPR):** Required for infants, children, and adults.
- **Additional requirements:** May include, but are not limited to, drug screening, additional vaccinations, and/or clinical facility-specific requirements.
- **Eligibility determination from a national-level criminal background check.**
- **Professional liability insurance:** Specific information regarding acceptable policies can be obtained directly from the program.
- **Proof of health insurance:** The school assumes no responsibility for illnesses and injuries experienced by students during their clinical experiences; students who are injured while completing clinical assignments are responsible for all associated medical costs.

Furthermore, students enrolled in clinical courses must arrange their own transportation to clinical assignments and will need to purchase uniforms and specialized equipment.

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (p. 442).
- Complete the General Education Requirements for Baccalaureate Degrees (p. 443).
  - For the Humanities GER, either PHIL A301 or PHIL A305 is recommended.

Pre-licensure Student Option

- Students must maintain a minimum 3.00 GPA while in the pre-licensure student option.
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
BIOL A111 & A111L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Lab	4
BIOL A112 & A112L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Lab	4
BIOL A240 & A240L	Introductory Microbiology for Health Sciences and Introductory Microbiology for Health Sciences Laboratory	4
CHEM A103	Introduction to General Chemistry	3
CHEM A104	Introduction to Organic and Biochemistry	3
DN A203	Nutrition for Health Sciences	3
ENGL A120	Reasoning, Thinking, and Discourse	3
or PHIL A101	Introduction to Logic	
or PHIL A201	Introduction to Philosophy	
HLTH A151	Breaking Trail on Your Health and Social Services Career	3
MATH A121	Applied College Algebra [1]	3-4
or MATH A151	College Algebra for Calculus	
NS A230	Pathophysiology for Health Professions	3
NS A231 & A231L	Pharmacology for Health Professions and Pharmacology for Health Professions Lab	4
NS A332 & A332L & A332P	Fundamentals of the Nursing Profession: Theory and Fundamentals of the Nursing Profession: Skills and Fundamentals of the Nursing Profession: Practicum	6
NS A333 & A333L	Assessment and Health Promotion of Diverse Populations: Theory and Assessment and Health Promotion of Diverse Populations: Lab	4
NS A334	Nursing Informatics and Introduction to Evidence-Based Practice	3
NS A388 & A388L & A388P	Nursing Care of Adult Medical-Surgical Patients I: Theory and Nursing Care of Adult Medical-Surgical Patients I: Skills and Nursing Care of Adult Medical-Surgical Patients I: Practicum	8
NS A389 & A389P	Nursing Care of Mental and Behavioral Health Disruptions: Theory and Nursing Care of Mental and Behavioral Health Disruptions: Practicum	4
NS A400	Nursing Research and Evidence-Based Practice	3
NS A452 & A452P	Nursing Care of Children and Their Families: Theory and Nursing Care of Children and Their Families: Practicum	4
NS A453 & A453P	Nursing Care of Childbearing Families and Sexual Health: Theory and Nursing Care of Childbearing Families and Sexual Health: Practicum	4
NS A454 & A454P	Nursing Care of Communities and Populations: Theory and Nursing Care of Communities and Populations: Practicum	5

NS A471 & A471P	Nursing Care of Adult Medical-Surgical Patients II: Theory and Nursing Care of Adult Medical-Surgical Patients II: Practicum	5
NS A472	Nursing Leadership and Management	3
NS A473	NCLEX Review and Career Coaching	1
NS A474P	Nursing Practicum Immersion	3
NS A475	Nursing Integrative Capstone	3
PHIL A301	Ethics	3
or PHIL A302	Biomedical Ethics	
or PHIL A305	Professional Ethics	
PSY A150	Lifespan Development	3
STAT A200	Elementary Statistics	3-4
or STAT A253	Applied Statistics for the Sciences	
or STAT A307	Probability and Statistics	
Total		**102-104**

A minimum of 120 credits is required for the degree, of which 39 credits must be upper-division.

Registered Nurse (RN) Student Option

- Students must maintain a minimum 2.00 GPA while in the RN student option.
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
BIOL A111 & A111L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Lab	4
BIOL A112 & A112L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Lab	4
BIOL A240 & A240L	Introductory Microbiology for Health Sciences and Introductory Microbiology for Health Sciences Laboratory	4
DN A203	Nutrition for Health Sciences	3
ENGL A120	Reasoning, Thinking, and Discourse	3
or PHIL A101	Introduction to Logic	
or PHIL A201	Introduction to Philosophy	
NS A230	Pathophysiology for Health Professions [2]	3
NS A231 & A231L	Pharmacology for Health Professions and Pharmacology for Health Professions Lab [2]	4
NS A308	Dimensions of Professional Nursing Practice [3]	3
NS A314 & A314L	Health I for Registered Nurses and Health I for Registered Nurses Laboratory	4
NS A332 & A332L & A332P	Fundamentals of the Nursing Profession: Theory and Fundamentals of the Nursing Profession: Skills and Fundamentals of the Nursing Profession: Practicum [2]	6
NS A333 & A333L	Assessment and Health Promotion of Diverse Populations: Theory and Assessment and Health Promotion of Diverse Populations: Lab [2]	4
NS A334	Nursing Informatics and Introduction to Evidence-Based Practice	3
NS A388 & A388L & A388P	Nursing Care of Adult Medical-Surgical Patients I: Theory and Nursing Care of Adult Medical-Surgical Patients I: Skills and Nursing Care of Adult Medical-Surgical Patients I: Practicum [2]	8
NS A389 & A389P	Nursing Care of Mental and Behavioral Health Disruptions: Theory and Nursing Care of Mental and Behavioral Health Disruptions: Practicum [2]	4
NS A400	Nursing Research and Evidence-Based Practice	3
NS A452 & A452P	Nursing Care of Children and Their Families: Theory and Nursing Care of Children and Their Families: Practicum [2]	4
NS A453 & A453P	Nursing Care of Childbearing Families and Sexual Health: Theory and Nursing Care of Childbearing Families and Sexual Health: Practicum [2]	4
NS A454 & A454P	Nursing Care of Communities and Populations: Theory and Nursing Care of Communities and Populations: Practicum	5
NS A471 & A471P	Nursing Care of Adult Medical-Surgical Patients II: Theory and Nursing Care of Adult Medical-Surgical Patients II: Practicum [2]	5

NS A472	Nursing Leadership and Management	3
NS A475	Nursing Integrative Capstone	3
PHIL A301	Ethics	3
or PHIL A302	Biomedical Ethics	
or PHIL A305	Professional Ethics	
PSY A150	Lifespan Development	3
STAT A200	Elementary Statistics	3-4
or STAT A253	Applied Statistics for the Sciences	
or STAT A307	Probability and Statistics	
Upper-division nursing electives or advisor-approved electives [4]		6
Total		**99-100**

1. *An ALEKS exam score of 65 or higher waives this math prerequisite course requirement in the pre-licensure option.*
2. *An accepted, degree-seeking UAA nursing student who has successfully passed the National Council Licensing Examination (NCLEX-RN) and holds current unencumbered RN licensure in the state of Alaska may be granted the course credits for these sequences upon admission to the nursing major. An administrative fee will be charged for these credits. To receive credits, the student must complete the appropriate form with a nursing advisor.*
3. *Must be completed with a minimum grade of C prior to admission to 400-level nursing courses.*
4. *Three credits of nursing electives may be satisfied with a current recognized nursing certification.*

A minimum of 120 credits is required for the degree, of which 39 credits must be upper-division.

Program Student Learning Outcomes

Students graduating with a Bachelor of Science in Nursing will be able to:

- Demonstrate clinical reasoning by making evidence-based nursing judgments through the use of intellectual, interpersonal, and technical competencies to promote safe and effective client-centered care.
- Implement caring behaviors in the practice of professional nursing using established standards, evidence-based practice, and innovation to prevent illness and promote and restore health in order to meet the changing needs of diverse individuals, families, groups, and communities.
- Utilize principles of management and leadership to collaborate as a member of the inter-professional care team.
- Compare and contrast the roles of the professional nurse in promoting optimal healthcare policies locally, nationally, and globally.
- Develop an individualized plan for ongoing professional development and professional identity using a technological platform.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year

Fall		**Credits**
BIOL A111 & A111L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Lab	4
HLTH A151	Breaking Trail on Your Health and Social Services Career	3
MATH A121 or MATH A151	Applied College Algebra or College Algebra for Calculus	3-4
GER Written Communication Skills		3
	Credits	**13-14**

Spring		
BIOL A112 & A112L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Lab	4
CHEM A103	Introduction to General Chemistry	3
ENGL A120 or PHIL A101 or PHIL A201	Reasoning, Thinking, and Discourse or Introduction to Logic or Introduction to Philosophy	3
STAT A200 or STAT A253 or STAT A307	Elementary Statistics or Applied Statistics for the Sciences or Probability and Statistics	3-4
GER Oral Communication Skills		3
	Credits	**16-17**
Second Year		
Fall		
CHEM A104	Introduction to Organic and Biochemistry	3
PSY A150	Lifespan Development	3
GER Fine Arts [1]		3
GER Social Sciences [1]		3
GER Written Communication Skills		3
	Credits	**15**
Spring		
BIOL A240 & A240L	Introductory Microbiology for Health Sciences and Introductory Microbiology for Health Sciences Laboratory	4
DN A203	Nutrition for Health Sciences	3
PHIL A301 or PHIL A302 or PHIL A305	Ethics or Biomedical Ethics or Professional Ethics	3
GER Humanites [1]		3
	Credits	**13**
Third Year		
Fall		
NS A230	Pathophysiology for Health Professions	3
NS A332 & A332L & A332P	Fundamentals of the Nursing Profession: Theory and Fundamentals of the Nursing Profession: Skills and Fundamentals of the Nursing Profession: Practicum	6
NS A333 & A333L	Assessment and Health Promotion of Diverse Populations: Theory and Assessment and Health Promotion of Diverse Populations: Lab	4
NS A334	Nursing Informatics and Introduction to Evidence-Based Practice	3
	Credits	**16**
Spring		
NS A231 & A231L	Pharmacology for Health Professions and Pharmacology for Health Professions Lab	4
NS A388 & A388L & A388P	Nursing Care of Adult Medical-Surgical Patients I: Theory and Nursing Care of Adult Medical-Surgical Patients I: Skills and Nursing Care of Adult Medical-Surgical Patients I: Practicum	8
NS A389 & A389P	Nursing Care of Mental and Behavioral Health Disruptions: Theory and Nursing Care of Mental and Behavioral Health Disruptions: Practicum	4
	Credits	**16**
Fourth Year		
Fall		
NS A400	Nursing Research and Evidence-Based Practice	3
NS A452 & A452P	Nursing Care of Children and Their Families: Theory and Nursing Care of Children and Their Families: Practicum	4
NS A453 & A453P	Nursing Care of Childbearing Families and Sexual Health: Theory and Nursing Care of Childbearing Families and Sexual Health: Practicum	4
NS A471 & A471P	Nursing Care of Adult Medical-Surgical Patients II: Theory and Nursing Care of Adult Medical-Surgical Patients II: Practicum	5
	Credits	**16**
Spring		
NS A454 & A454P	Nursing Care of Communities and Populations: Theory and Nursing Care of Communities and Populations: Practicum	5
NS A472	Nursing Leadership and Management	3
NS A473	NCLEX Review and Career Coaching	1
NS A474P	Nursing Practicum Immersion	3
NS A475	Nursing Integrative Capstone	3
	Credits	**15**
	Total Credits	**120-122**

[1] *Choose a course that also fulfills the Alaska Native-Themed GER or Intercultural Fluency GER*

Minor in Nutrition

Students majoring in another discipline who wish to minor in nutrition must complete the following requirements. A Minor in Nutrition will act as a supplement to other fields of study and the application of knowledge to target populations and systems.

Code	Title	Credits
Required Core		
DN A151	Nutrition Through the Life Cycle	3
DN A203	Nutrition for Health Sciences	3
Required Upper-Division Courses		
Complete 6 credits from the following:		6
DN A325	Food & Nutrition in Modern Alaska	
DN A355	Weight Management and Eating Disorders	
DN A407	Preventive and Therapeutic Nutrition	
Selectives *		
Complete 6 credits from the following:		6
DN A155	Survey of Alaska Native Nutrition	
DN/CA A270	Culinary Nutrition	
DN A275	Introduction to Culinary Medicine	
DN A360	Sports Nutrition	
Total		**18**

* *Other courses may be counted toward the minor with written approval of an advisor in the dietetics and nutrition program (e.g. CA A490).*

A minimum of 18 credits is required for the minor, of which 6 must be upper-division.

Associate of Applied Science in Outdoor Leadership

This program is delivered only through Prince William Sound College.

The Associate of Applied Science (AAS) in Outdoor Leadership prepares students to work in dynamic tourism, outdoor education and recreation. It is focused on teaching readiness for leadership, the benefits of outdoor recreation, the evaluation and mitigation of risk, technical backcountry skills, and expedition planning.

Admission Requirements

- Complete the Admission Requirements for Associate Degrees. (p. 46)

Special Considerations

Students may need to rent or purchase additional equipment for courses. Many courses in the program are conducted outdoors in extremely cold and/or inclement weather conditions with significant physical demands.

Graduation Requirements

- Complete the General University Requirements for Associate Degrees. (p. 441)
- Complete the General Education Requirements for Associate of Applied Science Degrees. (p. 441)
- Complete the following major requirements:

Code	Title	Credits
Core Courses		
KIN A161	Wilderness First Responder	4
KIN A181	Introduction to Kinesiology	3
KIN A262	Foundations of Outdoor Recreation	3
KIN A264	Recreation Program Planning and Evaluation	3
KIN A266	Introduction to Safety and Risk	3
KIN A280	Leadership in Kinesiology	3
KIN A282	Leadership in Initiative Activities	2
KIN A287	Leadership in Outdoor Recreation Activities	2
KIN A295	Outdoor Leadership Internship	3
KIN A296	Capstone: Advanced Outdoor Leadership	1-4
PER A170	Backpack Alaska	3
Science Core		**3-4**
BIOL/GEOL A178	Introduction to Oceanography	
or BIOL A190	Biota of Alaska: Selected Topics	
or ENVI A211	Environmental Science: Systems and Processes	
Electives		**12**
Complete a minimum of 12 credits from the following. Students may substitute other courses with advisor approval for up to 8 credits.		
GIS A101 & A101L	Introduction to Geographic Information Systems and Introduction to Geographic Information Systems Lab	
KIN A261	Recreation and Leisure in Modern Society	
PER A146	Beginning Rock Climbing	
PER A147	Beginning Ice Climbing	
PER A150	Water Safety and Rescue	
PER A152	Beginning River Rafting	
PER A153	Beginning Sea Kayaking	
PER A160	Beginning Cross-Country Ski: Classic Stride	
PER A164	Skiing Alaska's Backcountry	

PER A165	Avalanche Hazard Recognition and Evaluation
PER A168	Winter Camping Alaska
PER A171	Outdoor Adventure in Alaska
PER A173	Beginning Mountaineering
PER A181	Crevasse Rescue Techniques
PER A190	Selected Topics in Health, Physical Education and Recreation
PER A218	Avalanche Theory II
PER A253	Intermediate Sea Kayaking
Total	**45-49**

A minimum of 60 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with an Associate of Applied Science in Outdoor Leadership will be able to:

- Evaluate their personal readiness for leadership through reflection on the synthesis of their course experience and by communicating leadership behaviors verbally and in writing.
- Explain the benefits of outdoor recreation for individual and community well-being.
- Evaluate risks associated with outdoor activities and identify methods to reduce and/or mitigate those risks.
- Demonstrate proficiency in technical backcountry skills necessary for outdoor recreation professionals in the student's area of interest.
- Demonstrate proficiency in event/trip/field excursion planning and hosting.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
KIN A181	Introduction to Kinesiology	3
KIN A262	Foundations of Outdoor Recreation	3
PER A170	Backpack Alaska	3
WRTG A111	Writing Across Contexts	3
Program Elective		3
	Credits	**15**
Spring		
KIN A161	Wilderness First Responder	4
KIN A266	Introduction to Safety and Risk	3
KIN A280	Leadership in Kinesiology	3
GER Written Communication Skills (200-level)		3
Program Elective		2
	Credits	**15**
Summer		
KIN A295	Outdoor Leadership Internship	3
	Credits	**3**
Second Year		
Fall		
KIN A282	Leadership in Initiative Activities	2
KIN A287	Leadership in Outdoor Recreation Activities	2
GER Oral Communication Skills		3
Program Elective: Science Core		3
Program Elective		4
	Credits	**14**
Spring		
KIN A264	Recreation Program Planning and Evaluation	3
KIN A296	Capstone: Advanced Outdoor Leadership	1-4
GER Quantitative Skills (or MATH A105)		3

Program Elective	3
Credits	**10-13**
Total Credits	**57-60**

Minor in Outdoor Leadership

Students who wish to minor in outdoor leadership must complete the following requirements.* Prerequisites for these courses must also be satisfied.

Code	Title	Credits
KIN A262	Foundations of Outdoor Recreation	3
KIN A264	Recreation Program Planning and Evaluation	3
PER A169	Four-Season Backpacking	3
Advisor-Approved Upper-Division KIN course		3
Choose a minimum of 3 credits from the following:		3
PER A150	Water Safety and Rescue	
PER A152	Beginning River Rafting	
PER A153	Beginning Sea Kayaking	
PER A253	Intermediate Sea Kayaking	
Choose a minimum of 3 credits from the following:		3
PER A146	Beginning Rock Climbing	
PER A147	Beginning Ice Climbing	
PER A148	Beginning Indoor Sport Climbing	
PER A164	Skiing Alaska's Backcountry	
PER A181	Crevasse Rescue Techniques	
Other requirements: Pass a swimming test and possess current certification in first aid and CPR.		
Total		**18**

* *Not available to physical education majors with the outdoor leadership and administration emphasis*

A minimum of 18 credits, including 6 upper-division credits, is required for the minor.

Undergraduate Certificate in Outdoor Leadership

This program is delivered only through Prince William Sound College.

The Undergraduate Certificate in Outdoor Leadership is a one-year program focused on specific technical skills and the foundations of outdoor recreation for work in a professional setting such as tourism, outdoor recreation and guiding.

Admission Requirements

- Complete the Admission Requirements for Undergraduate Certificates (p. 46).

Graduation Requirements

- Complete the General University Requirements for Undergraduate Certificates (p. 441).
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
KIN A161	Wilderness First Responder	4
KIN A262	Foundations of Outdoor Recreation	3
KIN A280	Leadership in Kinesiology	3
KIN A287	Leadership in Outdoor Recreation Activities	2
PER A170	Backpack Alaska	3
PER A171	Outdoor Adventure in Alaska	2
Outdoor Skills Electives		**13**
PER A146	Beginning Rock Climbing	
PER A147	Beginning Ice Climbing	
PER A150	Water Safety and Rescue	
PER A152	Beginning River Rafting	
PER A153	Beginning Sea Kayaking	
PER A160	Beginning Cross-Country Ski: Classic Stride	
PER A164	Skiing Alaska's Backcountry	
PER A165	Avalanche Hazard Recognition and Evaluation	
PER A168	Winter Camping Alaska	
PER A173	Beginning Mountaineering	
PER A181	Crevasse Rescue Techniques	
PER A218	Avalanche Theory II	
PER A253	Intermediate Sea Kayaking	
Advisor approved elective(s)		
Total		**30**

A minimum of 30 credits is required for the certificate.

Program Student Learning Outcomes

Students graduating with an Undergraduate Certificate in Outdoor Leadership will be able to:

- Evaluate their personal readiness for leadership through reflection on the synthesis of their course experience and by communicating leadership behaviors verbally and in writing.
- Explain the benefits of outdoor recreation for individual and community well-being.
- Evaluate risks associated with outdoor activities and identify methods to reduce and/or mitigate those risks.
- Demonstrate proficiency in technical backcountry skills necessary for outdoor recreation professionals in the student’s area of interest.
- Demonstrate proficiency in event/trip/field excursion planning and hosting.

Associate of Applied Science in Paralegal Studies

The American Bar Association defines a paralegal as a person "who is employed or retained by a lawyer, law office, corporation, governmental agency or other entity and who performs specifically delegated substantive legal work for which a lawyer is responsible." The Associate of Applied Science (AAS) in Paralegal Studies provides students with the specialized skills and knowledge to build a career performing substantive legal work under the supervision of a lawyer, in accordance with American Bar Association standards, or to work in a variety of public service and government agencies where familiarity with government regulation and legal processes is required. The program is approved by the American Bar Association.

The AAS in Paralegal Studies is coordinated with the Bachelor of Arts (BA) in Legal Studies. Students obtaining the associate degree may apply their core courses and general education credits toward completion of the baccalaureate degree. The AAS in Paralegal Studies is designed to articulate directly into the Bachelor of Arts in Legal Studies. Both programs are approved by the American Bar Association.

Please note that students obtaining an Associate of Applied Science in Paralegal Studies are not authorized to provide direct legal services to the public. The program offers training for paraprofessionals who are authorized to perform substantive legal work under the supervision of a licensed attorney. The program does not train lawyers.

The AAS in Paralegal Studies provides students with the specialized skills and knowledge to build a career performing substantive legal work as paralegals and legal assistants under the supervision of a lawyer, in accordance with American Bar Association standards. Graduates are also prepared to work in a variety of corporate, public service, judicial, and government agency settings where familiarity with government regulation and legal processes is required. The AAS does not authorize students to provide direct legal services to the public and the program does not train students to practice law.

Proficiency in the use of computers and standard office software is an important component of legal practice. Students are strongly encouraged to build their technological skills as they progress through the program.

Admission Requirements

- Complete the Admission Requirements for Associate Degrees (p. 46).

Special Considerations

- LEGL courses beyond LEGL A101 (https://currentcatalog.uaa.alaska.edu/search/?P=LEGL%20A101) are all available on the Anchorage campus and may be available online. Campus restrictions for this program are enforced in accordance with the American Bar Association Guidelines for the Approval of Paralegal Education Programs.

Graduation Requirements

- Complete the General University Requirements for Associate Degrees (p. 441).
- Complete the General Education Requirements for Associate of Applied Science Degrees (p. 441).
- All students in the AAS in Paralegal Studies must take the Legal Studies Exit Examination. No minimum score is required for graduation.
- Complete the following major requirements with a minimum grade of C, and a minimum grade of B in all ENGL courses.

Code	Title	Credits
Oral Communication Skills		
Complete the Oral Communication Skills requirement with a minimum grade of C.		3
Written Communication Skills		
WRTG A111	Writing Across Contexts	3
Complete one of the following with a minimum grade of B:		3
WRTG A211	Writing and the Humanities	
WRTG A212	Writing and the Professions	
WRTG A213	Writing and the Sciences	
WRTG A214	Arguing Across Contexts	
Core Courses		
LEGL A101	Introduction to Law	3
LEGL A215	Legal Ethics and the Role of the Legal Professional	3
LEGL A356	Legal Research, Analysis, and Writing	3
LEGL A367	Civil Procedure and Pretrial Practice	3
LEGL A377	Evidence, Investigation, and Discovery	3
LEGL A487	Trial and Advanced Litigation Processes	3
LEGL A495	Legal Studies Internship	3
Complete one of the following courses:		3
ENGL A311	Writing in Public Life	
ENGL A312	Technical Writing and Design	
ENGL A313	Professional Writing	
ENGL A414	Research Writing	
Complete one of the following courses focused on a field of legal practice:		3
LEGL A340	Family Law	
LEGL A352	Criminal Law: Murder, Robbery, and Other Crimes	
LEGL A362	Contracts, Property, and Debt	
LEGL A380	Torts: Law of Injury, Death, and Consumer Protection	
LEGL A385	Health Care Law	
LEGL A489	Legal Studies Senior Seminar	

Other upper-division Legal Studies (LEGL) or Justice (JUST) law courses with Legal Studies Program Coordinator approval.		
Complete one of the following legal studies courses focused on the US Constitution and/or judicial systems:		3
JUST/LEGL A374	The Courts	
LEGL A315	Law, History and Social Change	
LEGL/PS A343	Constitutional Law	
LEGL A443	Civil Liberties	
Complete one additional Legal Studies (LEGL) or Justice (JUST) elective course at the 100-level or above.		3
Complete 9 additional credits from the GER Tier II Disciplinary Areas of the General Education requirements for baccalaureate degrees. No more than seven credits, including those used to satisfy General Education requirements, may be from a single disciplinary area.		9
Total		**51**

A minimum of 60 credits is required for the degree.

Pro Bono Service Honors

The Justice Center recognizes distinguished achievement by conferring pro bono service honors to those legal studies students who work toward improving access to justice by contributing volunteer service to Alaska legal aid agencies. Students in the AAS in Paralegal Studies are eligible to graduate with pro bono service honors on satisfactory completion of the requirements. See the Justice Center website (https://www.uaa.alaska.edu/academics/college-of-health/departments/justice-center/index.cshtml/) for more information.

Program Student Learning Outcomes

Students graduating with an Associate of Applied Science in Paralegal Studies will be able to:

1. Demonstrate understanding of fundamental principles of the legal discovery process.
2. Conduct effective and comprehensive legal research using commonly available legal research databases.
3. Analyze statutes, case law, and secondary sources and synthesize into convincing legal arguments.
4. Draft standard legal documents in accordance with commonly used stylistic conventions in legal practice.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
LEGL A101	Introduction to Law	3
LEGL A215	Legal Ethics and the Role of the Legal Professional	3
WRTG A111	Writing Across Contexts	3
GER Oral Communication Skills		3
GER Tier II Disciplinary Areas [1]		3
	Credits	**15**
Spring		
GER Quantitative Skills		3
GER Tier II Disciplinary Areas [1]		3
GER Tier II Disciplinary Areas [1]		3
Program Elective: LEGL or JUST		3
Program Elective (Written Communication): WRTG A211 or WRTG A212 or WRTG A213 or WRTG A214		3
	Credits	**15**
Second Year		
Fall		
LEGL A356	Legal Research, Analysis, and Writing	3
LEGL A367	Civil Procedure and Pretrial Practice	3
LEGL A377	Evidence, Investigation, and Discovery	3
Program Elective (US Constitution and/or Judicial Systems): JUST/LEGL A374 or LEGL A315 or LEGL/PS A343 or LEGL A443		3

Upper Division Program Elective (Advanced Written Communication): ENGL A311 or ENGL A312 or ENGL A313 or ENGL A414		3
	Credits	**15**
Spring		
LEGL A487	Trial and Advanced Litigation Processes	3
LEGL A495	Legal Studies Internship	3-6
Elective		3
Elective		3
Program Elective (Legal Practice): LEGL A340 or LEGL A352 or LEGL A362 or LEGL A380 or LEGL A385 or LEGL A489		3
	Credits	**15-18**
	Total Credits	**60-63**

[1] *No more than seven credits of GER Tier II Disciplinary Areas may be from a single disciplinary area*

Post-Baccalaureate Certificate in Paralegal Studies

The American Bar Association defines a paralegal as a person "who is employed or retained by a lawyer, law office, corporation, governmental agency or other entity and who performs specifically delegated substantive legal work for which a lawyer is responsible." The Post-Baccalaureate Certificate in Paralegal Studies is designed for students who have completed a baccalaureate degree and wish to continue their education. It provides students with the technical skills and specialized knowledge to work under the supervision of lawyers in federal and state agencies or court systems, in a variety of legal service settings, in private law offices or corporate legal departments, and in a multitude of other public and private organizations where familiarity with government regulation and legal processes is required. The program is approved by the American Bar Association.

Please note that students obtaining a post-baccalaureate certificate are not authorized to provide direct legal services to the public. The program offers training for paraprofessionals who are authorized to perform substantive legal work under the supervision of a licensed attorney. The program does not train lawyers.

Admission Requirements

- Students must meet the Admission Requirements for Post-Baccalaureate Certificates (p. 45).
- Students must have a minimum cumulative grade point average of 2.00 in their baccalaureate program.

Graduation Requirements

- All paralegal studies students must take the Legal Studies Exit Examination. There is no minimum score required for graduation.
- Complete the General University Requirements for Post-Baccalaureate Certificates (p. 461).
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
LEGL A101	Introduction to Law	3
LEGL A215	Legal Ethics and the Role of the Legal Professional	3
LEGL A356	Legal Research, Analysis, and Writing	3
LEGL A367	Civil Procedure and Pretrial Practice	3
LEGL A377	Evidence, Investigation, and Discovery	3
LEGL A487	Trial and Advanced Litigation Processes	3
LEGL A495	Legal Studies Internship	3-6
Complete one of the following electives:		3
LEGL A340	Family Law	
LEGL A352	Criminal Law: Murder, Robbery, and Other Crimes	
LEGL A362	Contracts, Property, and Debt	
LEGL A380	Torts: Law of Injury, Death, and Consumer Protection	
LEGL A385	Health Care Law	
LEGL A489	Legal Studies Senior Seminar	
Other upper division Legal Studies (LEGL) or Justice (JUST) course with legal studies coordinator approval		
Total		**24-27**

A minimum of 24 credits is required for the certificate.

Pro Bono Service Honors

The Justice Center awards pro bono service honors to those legal studies students who work toward improving access to justice by contributing volunteer service to Alaska legal aid agencies. Students majoring in any of the legal studies programs, as well as legal studies minors, are eligible to graduate with pro bono service honors upon satisfactory completion of the following requirements:

- Meet the catalog requirements for the minor, degree or certificate sought;
- Complete the following number of volunteer hours with a legal services agency approved by the department's program coordinator:
  - Post-Baccalaureate Certificate, Paralegal Studies: 50 hours
- Obtain written verification of their hours of service from the legal service agency or agencies assisted;
- In the semester they intend to graduate, students must submit their verification of service hours and written notice of their intent to graduate with pro bono service honors to the department's program coordinator. The verification and notice must be received by the coordinator on or before the date established by the Office of the Registrar as the deadline to apply for graduation.

Program Student Learning Outcomes

Students graduating with a Post-Baccalaureate Certificate in Paralegal Studies will be able to:

1. Demonstrate understanding of fundamental principles of the legal discovery process.
2. Conduct effective and comprehensive legal research using commonly available legal research databases.
3. Analyze statutes, case law, and secondary sources and synthesize into convincing legal arguments.
4. Draft standard legal documents in accordance with commonly used stylistic conventions in legal practice.

Associate of Applied Science in Paramedical Technology

This program is delivered only through Kenai-Peninsula College.

The Associate of Applied Science (AAS) in Paramedical Technology provides students with the fundamental knowledge and skills needed to enter the field of prehospital emergency medicine as an entry-level paramedic. Paramedics provide care to acutely ill or injured patients under the medical authority of licensed physicians.

The Commission on Accreditation of Allied Health Education Programs (http://www.caahep.org/) (CAAHEP) upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP) accredits the Paramedic Program through University of Alaska Anchorage Kenai Peninsula College, with Mat-Su College serving as an alternate location for skills labs of the accredited program.

Commission on Accreditation of Allied Health Education Programs (CAAHEP) (http://www.caahep.org/)
25400 U.S. Highway 19 North, Suite 158
Clearwater, FL 33763

Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP) (http://www.coaemsp.org/)
8301 Lakeview Parkway, Suite 111-312
Rowlett TX 75088
(214) 703-8445
FAX (214) 703-8992

Licensure and/or Certification

Graduates of the AAS in Paramedical Technology are eligible to take the National Registry Paramedic Certification (NREMT) exam.

This program is designed to meet the educational requirements for professional licensure or certification in the State of Alaska. However, the program might not meet the educational requirements for professional licensure or certification in other states. Please see UAA's Licensure and Certification website (https://www.uaa.alaska.edu/academics/office-of-academic-affairs/licensure.cshtml/) for more information.

Admission Requirements

- Complete the Admission Requirements for Associate Degrees (p. 46).
- A cumulative high school or postsecondary GPA of 2.5
- 3 years of high school science, with a recommendation for Anatomy and Physiology or Human Biology, or the postsecondary equivalent
- 3 years of high school math, with an emphasis on algebra, trigonometry, geometry, and analysis, or the postsecondary equivalent
- Current National Registry EMT or Advanced EMT or State of Alaska EMT-1, EMT-2, EMT-3 or Advanced EMT certificate
- Current Healthcare Provider or equivalent CPR certification
- Current State Background Check
- Military DD-214 if applicable
- Complete the Paramedical Technology program application, which will be followed by an interview with the program admissions committee

Special Considerations

- Once admitted to the paramedical technology program, students are required to provide the following before beginning coursework:
  - Documentation from personal physician, PA-C, or NP affirming capability to perform the physical tasks as outlined by the current National Highway Traffic Safety Administration (NHTSA) National EMS Standards
  - Documentation of immunity to hepatitis A and B, confirmed by titer; immunity to chicken pox documented by titer, or current immunization; diphtheria/tetanus vaccination within the past 10 years (with booster required at time of expiration); freedom from active tuberculosis, documented annually by negative PPD skin test or by health examination; documentation of HIV testing annually (results not required to be submitted)
  - Current Flu and COVID 19 immunizations if required
  - Proof of having been found free of federally illegal drugs
- Before starting clinical rotations students must provide:
  - A national-level FBI criminal background check
  - Proof of medical insurance
- Students enrolled in clinical courses must provide their own transportation to clinical assignments and will be required to purchase uniforms and specialized equipment.
- Students will be required to complete a 480-hour field internship outside of the state of Alaska for completion of the program and degree.

Graduation Requirements

- Complete the General University Requirements for Associate Degrees (p. 441).
- Complete the General Education Requirements for Associate of Applied Science Degrees (p. 441).
- Complete the following major requirements with a minimum grade of B in all PMED courses:

Code	Title	Credits
Core Courses		
BIOL A111 & A111L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Lab	4
BIOL A112 & A112L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Lab	4
PMED A241 & A241L	Paramedicine I and Paramedicine I Lab	8
PMED A242	Clinical Rotation I	4
PMED A253 & A253L	Paramedicine II and Paramedicine II Lab	8
PMED A254	Clinical Rotation II	4
PMED A263 & A263L	Paramedicine III and Paramedicine III Lab	8
PMED A264	Clinical Rotation III	4
PMED A295	Paramedic Internship	12
Total		**56**

A minimum of 68 credits is required for the degree.

Program Student Learning Outcomes

The current NHTSA National EMS Education Standards for paramedic training covers 14 learning outcomes and the Associate of Applied Science in Paramedical Technology follows that curriculum.

Program accreditation by the Commission on Accreditation of Allied Health Programs (CAAHEP) and professional certification exams by the National Registry of EMT's (NREMT) are based on the following student learning outcomes:

1. Integrate knowledge of EMS systems, safety/well-being of the paramedic, and medical/legal and ethical issues intended to improve the health of EMS personnel, patients, and the community.

2. Integrate a knowledge of the anatomy and physiology of all human systems.

3. Integrate anatomical and medical terminology and abbreviations into written and oral communication with colleagues and other health care professionals.

4. Integrate knowledge of pathophysiology of major human systems.

5. Integrate knowledge of life span development.

6. Apply knowledge of principles of public health and epidemiology including public health emergencies, health promotion, and illness and injury prevention.

7. Integrate knowledge of pharmacology to formulate a treatment plan intended to mitigate emergencies and improve the overall health of the patient.

8. Integrate knowledge of anatomy, physiology, and pathophysiology into the assessment to develop and implement a treatment plan with the goal of assuring a patent airway, adequate mechanical ventilation, and respiration for patients of all ages.

9. Integrate scene and patient assessment findings with knowledge of epidemiology and pathophysiology to form a field impression including developing a list of differential diagnoses through clinical reasoning to modify the assessment and formulate a treatment plan.

10. Integrate assessment findings with principles of epidemiology and pathophysiology to formulate a field impression and implement a treatment/disposition plan for a patient with a medical complaint.

11. Integrate knowledge of causes and pathophysiology into the management of cardiac arrest and peri-arrest states.

12. Integrate assessment findings with principles of epidemiology and pathophysiology to formulate a field impression to implement a treatment/disposition plan for an acutely injured patient.

13. Integrate assessment findings with principles of pathophysiology and knowledge of psychosocial needs to formulate a field impression and implement a treatment/disposition plan for patients with special needs.

14. Integrate knowledge of operational roles and responsibilities to ensure safe patient, public, and personnel safety.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.

- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
EMT A130	Emergency Medical Technician I (if needed) [1]	8
BIOL A111 & A111L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Lab	4
GER Written Communication Skills		3
	Credits	**15**
Spring		
BIOL A112 & A112L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Lab	4
GER Oral Communication Skills		3
GER Quantitative Skills (MATH A105)		3
GER Written Communication Skills		3
	Credits	**13**
Second Year		
Fall		
PMED A241 & A241L	Paramedicine I and Paramedicine I Lab	8
PMED A242	Clinical Rotation I	4
	Credits	**12**
Spring		
PMED A253 & A253L	Paramedicine II and Paramedicine II Lab	8
PMED A254	Clinical Rotation II	4
	Credits	**12**
Summer		
PMED A263 & A263L	Paramedicine III and Paramedicine III Lab	8
PMED A264	Clinical Rotation III	4
	Credits	**12**
Third Year		
Fall		
PMED A295	Paramedic Internship	12
	Credits	**12**
	Total Credits	**76**

[1] *For students who do not meet the admission requirement of current EMT certification. See the catalog.*

Occupational Endorsement Certificate in Pharmacy Technology

The Occupational Endorsement Certificate (OEC) in Pharmacy Technology prepares students to work as pharmacy technicians in a variety of settings. Students will also have a solid background to continue further study in the field of pharmacy.

All coursework associated with the program is offered exclusively in a distance-delivered, online learning format.

Licensure and/or Certification

The program is approved as a Pharmacy Technician Certification Board (PTCB) Recognized Education/Training Program and prepares students to sit for the national PTCB examination, required for sustained employment as a pharmacy technician in the state of Alaska. Students should note that the state of Alaska requires that all pharmacy technicians be at least 18 years of age prior to licensure.

This program is designed to meet the educational requirements for professional licensure or certification in the State of Alaska. However, the program might not meet the educational requirements for professional licensure or certification in other states. Please see UAA's Licensure and Certification website (https://www.uaa.alaska.edu/academics/office-of-academic-affairs/licensure.cshtml/) for more information.

Admission Requirements

- Complete the Admission Requirements for Occupational Endorsement Certificate Programs (p. 46).

Graduation Requirements

- Complete the General University Requirements for Occupational Endorsement Certificates (p. 440).
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
PHAR A101	Introduction to Pharmacy	3
PHAR A105	Pharmacology for Technicians I	3
PHAR A107	Pharmacy Calculations	3
PHAR A111	Techniques of Pharmacy Practice	3
PHAR A115	Pharmacology for Technicians II	3
PHAR A192	Professional Practice of the Pharmacy Technician	1
Total		**16**

A minimum of 16 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with an Occupational Endorsement Certificate in Pharmacy Technology will be able to:

- Receive, screen and prepare prescription/medication orders, checking for completeness, authenticity and accuracy.
- Demonstrate understanding of proper procedures and calculations used for prescription processing and non-sterile compounding.
- Properly store, handle and dispose of pharmaceuticals while maintaining pharmacy equipment and facilities with appropriate standards.
- Participate in the process for detecting and preventing medication errors and notify the pharmacist when a problem or situation requires their attention.
- Communicate clearly and effectively with patients, customers, coworkers, and medical staff while maintaining confidentiality, compassion and professionalism.
- Understand Federal requirements for drug handling and disposal, controlled substance prescriptions, restricted drug programs and recalls.
- Demonstrate an understanding of medication generic names, brand names, classifications, dosage forms, interactions, contraindications, indications and side effects.

Occupational Endorsement Certificate in Phlebotomist

Phlebotomists obtain blood and other samples for laboratory testing. They establish professional relationships with their patients, collect and prepare specimens, maintain collection areas and equipment, and perform record keeping duties. Students are eligible to sit for national certification examinations in phlebotomy after completion of MEDT A195A.

Admission Requirements

- Complete the Admission Requirements for Occupational Endorsement Certificate Programs (p. 46).
- Complete the Medical Laboratory Science Department Admission Requirements (p. 637).

Advising

Courses for this Occupational Endorsement Certificate (OEC) are offered on campus and via distance delivery. Distance students must contact the Medical Laboratory Science Department to arrange for a proctor and clinical training facility prior to enrolling in any of the courses.

Graduation Requirements

- Complete the General University Requirements for Occupational Endorsement Certificates (p. 440).
- Complete the following major requirements with a minimum grade of C or P:

Program Requirements On Campus Delivery

Code	Title	Credits
MEDT A132 & A132L	Phlebotomy and Specimen Processing Techniques and Phlebotomy and Specimen Processing Techniques Lab	4
MEDT A195A	Phlebotomy Practicum	4
MEDT A250	Cultural Diversity in Health Care	1
Total		**9**

Program Requirements Distance Delivery

Code	Title	Credits
MEDT A132	Phlebotomy and Specimen Processing Techniques	2
MEDT A195C	Phlebotomy Practicum	6
MEDT A250	Cultural Diversity in Health Care	1
Total		**9**

A minimum of 9 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with an Occupational Endorsement Certificate in Phlebotomist will be able to:

- Demonstrate entry-level competencies for phlebotomist including:
  - Select the appropriate site and demonstrate the proper technique for collecting, handling and processing blood and non-blood specimens.
  - Adhere to infection control and safety policies and procedures.
  - Identify factors that affect specimen collection procedures and test results and take appropriate actions.
  - Perform point-of-care testing according to standard operating procedures.
  - Recognize legal implications when interacting with patients, peers, other health care personnel and the public.
- Demonstrate professional conduct, stress management, interpersonal and communication skills with patients, peers and other health care personnel and the public.
- Act upon individual needs for continuing education as a function of growth and maintenance of professional competence.
- Recognize opportunities for professional development with the laboratory.

Associate of Applied Science in Physical Therapist Assistant

Physical therapist assistants (PTAs) provide physical therapy services under the direction and supervision of a physical therapist. PTAs help people of all ages and help people who have movement difficulties due to injury or disease get back to doing the things in their lives that they want and need to do. Unlike a physical therapist, the PTA cannot

evaluate a patient, but can provide vital and ongoing assessment and treatment interventions toward specific short- and long-term goals.

Care provided by a PTA may include therapies designed to improve mobility, strength or function; to relieve pain; to prevent or limit disability; and to promote overall wellness and fitness.

Generally, PTAs are employed wherever physical therapists work. Hospitals, rehabilitation centers, nursing homes, home and public health agencies, schools, private physical therapy practices, and the armed forces are major employers.

The Associate of Applied Science (AAS) in Physical Therapist Assistant prepares students to become entry-level physical therapist assistants (PTAs). PTAs work in hospitals, rehabilitation centers, nursing homes, home and public health agencies, schools, private clinics and in the armed forces. They help people of all ages who have movement difficulties due to injury or disease get back to doing the things in their lives that they want and need to do.

The AAS in Physical Therapist Assistant is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE).

Licensure and/or Certification

Graduates of the AAS in Physical Therapist Assistant are eligible to sit for the National Physical Therapy Exam administered by the Federation of State Boards of Physical Therapy.

This program is designed to meet the educational requirements for professional licensure or certification in the State of Alaska. However, the program might not meet the educational requirements for professional licensure or certification in other states. Please see UAA's Licensure and Certification website (https://www.uaa.alaska.edu/academics/office-of-academic-affairs/licensure.cshtml/) for more information.

Admission Requirements

- Complete the Admission Requirements for Associate Degrees (p. 46).
- Complete, or be in progress of completing, the following courses with a minimum grade of B:
  - BIOL A111 and BIOL A111L
  - BIOL A112 and BIOL A112L
- Complete, or be in progress of completing, the following courses with a minimum grade of C:
  - Oral Communications General Education Requirement (GER) course
  - MA A101
  - MA A104
  - PSY A111 or PSY A150
  - WRTG A111 (or earn WRTG A1W in transfer)
- Submit a physical therapist assistant application according to instructions and deadlines on the program website (https://www.uaa.alaska.edu/academics/college-of-health/departments/preventive-and-therapeutic-sciences/physical-therapist-assistant/).
- Provide documentation of current Basic Life Support for Health Care Providers certification.

Students will initially be admitted to a pre-major status. Admission to the pre-major status does not guarantee subsequent admission to the major. As a pre-major, students work with an academic advisor to assist them in completing pre-major requirements and preparing them to apply to the full major.

Special Considerations

- Once admitted, students must provide evidence of:
  - Current immunizations as required by the department.
  - National-level criminal background check.
  - Students must provide proof of health insurance prior to clinical placement.

Graduation Requirements

- Complete the General University Requirements for Associate Degrees (p. 441).
- Complete the General Education Requirements for Associate of Applied Science Degrees (p. 441).
- Complete the following major requirements with a minimum grade of C in all PTA courses:

Code	Title	Credits
BIOL A111 & A111L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Lab	4
BIOL A112 & A112L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Lab	4
MA A101	Medical Terminology	3
MA A104	Essentials of Human Disease	3
PSY A111	Introduction to Psychology	3
or PSY A150	Lifespan Development	
PTA A102	Physical Therapy in Health Care	3
PTA A105	Tests and Measures	3
PTA A110	Kinesiology and Biomechanics	3
PTA A120	Rehabilitation I	3
PTA A130	Physical Therapy Interventions I	4
PTA A195	Clinical Practicum I	1
PTA A210	Therapeutic Exercise	4
PTA A220	Rehabilitation II	3
PTA A230	Physical Therapy Interventions II	4
PTA A250	Neurological Interventions Across the Lifespan	3
PTA A292	Physical Therapist Assistant Seminar	2
PTA A295A	Clinical Practicum II	5
PTA A295B	Clinical Practicum III	5
Total		**60**

A minimum of 72 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with an Associate of Applied Science in Physical Therapist Assistant will be able to:

- Exhibit professional behavior in their role as responsible physical therapist assistants, adhering to appropriate ethical, legal and regulatory standards.
- Engage in evidence-based practice, responding to the dynamics of a changing healthcare system.
- Integrate the principles of the physical, biological and behavioral sciences with the clinical practice of physical therapy.
- Communicate effectively and sensitively with patients, families and other members of the health care team.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
BIOL A111 & A111L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Lab [1]	4
MA A101	Medical Terminology [1]	3
MATH A105	Intermediate Algebra [1]	4
PSY A111 or PSY A150	Introduction to Psychology [1] or Lifespan Development	3
WRTG A111	Writing Across Contexts [1]	3
	Credits	**17**
Spring		
BIOL A112 & A112L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Lab	4
COMM A111 or COMM A235	Fundamentals of Oral Communication or Small Group Communication	3
MA A104	Essentials of Human Disease	3
GER Written Communication Skills		3
	Credits	**13**
Second Year		
Spring		
PTA A102	Physical Therapy in Health Care	3
PTA A105	Tests and Measures	3
PTA A110	Kinesiology and Biomechanics	3
PTA A120	Rehabilitation I	3
PTA A130	Physical Therapy Interventions I	4
	Credits	**16**
Summer		
PTA A195	Clinical Practicum I	1
PTA A210	Therapeutic Exercise	4
PTA A220	Rehabilitation II	3
PTA A230	Physical Therapy Interventions II	4
PTA A250	Neurological Interventions Across the Lifespan	3
	Credits	**15**
Third Year		
Fall		
PTA A292	Physical Therapist Assistant Seminar	2
PTA A295A	Clinical Practicum II	5
PTA A295B	Clinical Practicum III	5
	Credits	**12**
	Total Credits	**73**

[1] *Please note that the PTA program starts each year in January. So while the first year is listed as Fall-Spring, the courses can also be completed in any two semesters preceding the start of the program.*

Post-Baccalaureate Certificate in Pre-Medical Studies

The Post-Baccalaureate Certificate in Pre-Medical Studies prepares students for medical school (MD, DO, DPM and equivalent degree programs)

Admission Requirements

- Complete the Admission Requirements for Post-Baccalaureate Certificates (p. 45).
- Complete a baccalaureate degree with a minimum cumulative GPA of 2.75.
- Submit a letter of recommendation from a faculty member of the Alaska WWAMI School of Medical Education's Pre-Medical Advising Committee to the UAA Office of Admissions.

Special Considerations

- Post-Baccalaureate certificates are subject to specific restrictions on the use of transfer credits. See Post-Baccalaureate Policies (p. 461) for details.
- Students who have not completed the necessary prerequisites for courses listed in the certificate requirements as part of their earlier baccalaureate degree program or other studies will need to complete those prerequisite courses in order to take the relevant courses listed in the certificate requirements.
- Students interested in the Post-Baccalaureate Certificate in Pre-Medical Studies should consult with a faculty member of the Alaska WWAMI School of Medical Education's Pre-Medical Advising Committee before enrolling in this program. A letter of recommendation will be provided to interested students following this consultation.

Graduation Requirements

- Complete the General University Requirements for Post-Baccalaureate Certificates (p. 461).
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
Core Courses		
BIOL A242	Fundamentals of Cell Biology [1]	3
or BIOL A252	Principles of Genetics	
CHEM A321	Organic Chemistry I	3
CHEM A441	Principles of Biochemistry I	3
Electives		
Complete 15 credits of electives from the following:		15
AKNS A201	Alaska Native Perspectives	
ANTH A202	Cultural Anthropology	
BIOL A108	Principles and Methods in Biology	
BIOL A242	Fundamentals of Cell Biology	
BIOL A243	Experiential Learning: Cell Biology and Genetics	
BIOL A252	Principles of Genetics	
BIOL A310	Principles of Animal Physiology	
BIOL A412	Behavioral Endocrinology	
BIOL A413	Neurophysiology	
BIOL A452	Human Genome	
BIOL A471	Immunology	
BIOL A498	Individual Research [2]	
BIOM A418	Human Gross Anatomy	
CHEM A105	General Chemistry I	
CHEM A105L	General Chemistry I Laboratory	
CHEM A106	General Chemistry II	
CHEM A106L	General Chemistry II Laboratory	
CHEM A322	Organic Chemistry II	
CHEM A323L	Organic Chemistry Laboratory	
CHEM A442	Principles of Biochemistry II	
CHEM A498	Individual Research [2]	
DN A475	Advanced Nutrition [2]	
HS A370	Social and Cultural Determinants of Health	
HS A433	Health Education: Theory and Practice	
JUST A310	Forensic Science and Criminal Justice	
JUST A366	Substance Use and Crime	
MATH A151	College Algebra for Calculus	
MATH A251	Calculus I	
or MATH A251F	F.A.T. Calculus I	
MATH A252	Calculus II	
or MATH A252F	F.A.T. Calculus II	
MATH A314	Linear Algebra	
MBIO A340	Microbial Biology	
MBIO A342	Experiential Learning: Microbial Biology	
MBIO A410	Microbial Physiology	
MBIO A462	Virology	
PHIL A302	Biomedical Ethics	
PHYS A123	College Physics I	
PHYS A124	College Physics II	
PSY A111	Introduction to Psychology	
PSY A150	Lifespan Development	
PSY A345	Psychopathology	
PSY A370	Behavioral Neuroscience	
PSY A498	Individual Research [2]	
SOC A101	Introduction to Sociology	
SOC A363	Social Stratification	
SOC A377	Sociology of Gender	
STAT A253	Applied Statistics for the Sciences	
SWK A335	Human Behavior in the Social Environment	

SWK A409	Introduction to Child Welfare	
WSGS A200	Introduction to Women's and Gender Studies	
Advisor approved elective		
Total		**24**

[1] *BIOL A242 and BIOL A252 can only count towards the credit requirement in one area. They cannot be counted towards both the core requirement and the elective credit requirement.*

[2] *In combined total, no more than 6 credits of BIOL A498, CHEM A498, and PSY A498 can count toward the 24 credits required for graduation. Additional credits can be taken but will not count toward this certificate.*

A minimum of 24 credits is required for the certificate, of which 15 credits must be upper-division.

Program Student Learning Outcomes

Students graduating with a Post-Baccalaureate Certificate in Pre-Medical Studies will be able to:

- Demonstrate an understanding of the core concepts in organic chemistry, biochemistry, genetics, including molecular genetics, and cell biology.
- Demonstrate an understanding of the core concepts associated with the disciplines that are assessed as part of the Medical College Admissions Test, MCAT that is administered by the Association of American Medical Colleges.
- Demonstrate the successful completion of the majority of the pre-requisite courses required for admission to the MD program administered by the Alaska WWAMI School of Medical Education.

Minor in Public Health

Public health is a diverse field that focuses on improving the health of the entire population through community-based health promotion and disease prevention activities and policies. Students majoring in a subject other than health sciences who wish to minor in public health must complete the following requirements. Students majoring in health sciences are not eligible to minor in public health.

Code	Title	Credits
HS A220	Introduction to Population Health Sciences	3
HS A230	Introduction to Global Health	3
HS A326	Introduction to Epidemiology	3
Complete 9 credits from the following:		9
HS A210	Introduction to Environmental Health	
HS A370	Social and Cultural Determinants of Health	
HS A345	Planning and Management of Health Programs	
HS A420	Program Evaluation	
HS A433	Health Education: Theory and Practice	
HS A492	Senior Seminar: Contemporary Health Policy	
Total		**18**

A minimum of 18 credits is required, of which 9 must be upper-division.

Associate of Applied Science in Radiologic Technology

The Associate of Applied Science (AAS) in Radiologic Technology prepares students for employment as career-entry medical radiographers. Students completing the program receive an Associate of Applied Science and are eligible to apply for certification with the American Registry of Radiologic Technologists (ARRT).

Graduates are prepared with the technical skills necessary to perform a variety of diagnostic radiographic examinations. The primary role of the radiographer is to provide diagnostic images of the structure and function of anatomy to assist the physician in the treatment of injury and disease. Examples of examinations performed include chest, upper and lower extremities, spine, ribs, skull, gastrointestinal, genitourinary, and reproductive systems.

The program of study incorporates didactic instruction, laboratory demonstration and clinical application in a manner that provides correlation of theory with practice. The inclusion of General University Requirements fulfills program goals of developing knowledgeable and competent practitioners who will have opportunities for continued professional growth. Additional expenses include clinical attire, vaccinations, identification badge, background check and other organization fees.

The Associate of Applied Science is not contingent upon the students passing any type of external certification or licensure examination.

The AAS in Radiologic Technology prepares students for employment as a radiologic technologist. The program of study incorporates classroom instruction, laboratory demonstration, and clinical application. The primary role of the radiologic technologist is to provide diagnostic images of the structure and function of anatomy to assist the physician in the treatment of injury and disease.

Admission Requirements

- Complete the Admission Requirements for Associate Degrees (p. 46).
- Complete BIOL A111 and BIOL A111L, BIOL A112 and BIOL A112L, and MA A101.
- Submit the radiologic technology department application according to instructions and deadlines on the program website (https://www.uaa.alaska.edu/academics/college-of-health/departments/school-of-allied-health/radiologic-technology/).
- Students will initially be admitted to pre-major status. Admission to pre-major status does not guarantee subsequent admission to the

major. As a pre-major, students work with an academic advisor to assist them in completing pre-major requirements and preparing them to apply to the full major.

Special Considerations

- The AAS in Radiologic Technology is a 21 consecutive month program.
- Once admitted to the radiologic technology program students may be required to provide documentation of the following as required by clinical partners for practicum placements:
  - Immunizations
  - Provisional approval of a criminal background check from the State of Alaska
  - Current health insurance coverage
  - BLS certification
  - Students may be required to submit to drug screening.

Graduation Requirements

- Complete the General University Requirements for Associate Degrees (p. 441).
- Complete the General Education Requirements for Associate of Applied Science Degrees (p. 441).
- Complete the following major requirements:

Code	Title	Credits
BIOL A111 & A111L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Lab	4
BIOL A112 & A112L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Lab	4
MA A101	Medical Terminology	3
RADT A111	Introduction to Radiologic Technology and Patient Care	3
RADT A131	Radiographic Procedures I	3
RADT A132	Radiographic Procedures II	3
RADT A133	Radiographic Procedures III	2
RADT A161	Fundamentals of Medical Imaging I	3
RADT A171	Fundamentals of Medical Imaging II	3
RADT A195A	Radiography Practicum I	2
RADT A195B	Radiography Practicum II	6
RADT A240	Introduction to Computed Tomography	1
RADT A251	Radiobiology and Protection	2
RADT A270	Quality Control and Quality Assurance in Medical Imaging	1
RADT A272	Ethics in Medical Imaging	2
RADT A280	Medical Imaging Pathology	3
RADT A292	Radiologic Technology Seminar	1
RADT A295A	Radiography Practicum IV	5
RADT A295B	Radiography Practicum V	5
Total		**56**

A minimum of 68 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with an Associate of Applied Science in Radiologic Technology will be able to:

- Demonstrate proficiency and competency in the performance of radiographic procedures utilizing proper exposure techniques.
- Apply entry-level knowledge and skills as a radiologic technologist.
- Demonstrate a professional attitude and proper ethical behavior in clinic settings.
- Utilize effective oral and written communication with patients, physicians, and other healthcare providers.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be

upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
BIOL A111 & A111L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Lab	4
MA A101	Medical Terminology	3
GER Oral Communication Skills [1]		3
GER Written Communication Skills [1]		3
	Credits	**13**
Spring		
BIOL A112 & A112L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Lab	4
GER Quantitative Skills (recommend MATH A105) [1]		3
GER Written Communication Skills [1]		3
	Credits	**10**
Second Year		
Fall		
RADT A111	Introduction to Radiologic Technology and Patient Care	3
RADT A131	Radiographic Procedures I	3
RADT A161	Fundamentals of Medical Imaging I	3
	Credits	**9**
Spring		
RADT A132	Radiographic Procedures II	3
RADT A171	Fundamentals of Medical Imaging II	3
RADT A195A	Radiography Practicum I	2
	Credits	**8**
Summer		
RADT A195B	Radiography Practicum II	6
	Credits	**6**
Third Year		
Fall		
RADT A133	Radiographic Procedures III	2
RADT A240	Introduction to Computed Tomography	1
RADT A251	Radiobiology and Protection	2
RADT A270	Quality Control and Quality Assurance in Medical Imaging	1
RADT A295A	Radiography Practicum IV	5
	Credits	**11**
Spring		
RADT A272	Ethics in Medical Imaging	2
RADT A280	Medical Imaging Pathology	3
RADT A292	Radiologic Technology Seminar	1
RADT A295B	Radiography Practicum V	5
	Credits	**11**
	Total Credits	**68**

[1] *GER's can be taken at any time but it is recommended that GER's are completed before applying to the program. All RADT classes are taken only if the student has been accepted into the program. The program's application process is found on the website.*

Minor in Social Welfare Studies

Students majoring in another subject who wish to minor in social welfare studies must complete the following requirements:

Code	Title	Credits
SWK A106	Introduction to Social Welfare	3
SWK A151	Introduction to Social Work	3
SWK A243	Diversity, Equity and Inclusion through Community Service Learning	3
SWK A335	Human Behavior in the Social Environment	3
SWK A439	Social Welfare: Policies and Issues	3
Upper-division SWK elective		3
Total		**18**

A total of 18 credits is required for the minor.

Bachelor of Social Work

The UAA Bachelor of Social Work (BSW) prepares students for professional social work practice. The mission of the BSW is to prepare generalist social workers who collaborate with individuals, families, groups, organizations, and communities. Graduates enhance human well-being, engage in decolonizing and anti-oppressive practice, and promote equity and social, racial, economic, and environmental justice and equity for Alaskans across our diverse geographic and cultural communities.

The BSW has been continuously accredited by the Council on Social Work Education since 1978.

Licensure and/or Certification

Graduates completing the Bachelor of Social Work may be eligible to pursue licensure as a baccalaureate social worker (LBSW) with the State of Alaska.

This program is designed to meet the educational requirements for professional licensure or certification in the State of Alaska. However, the program might not meet the educational requirements for professional licensure or certification in other states. Please see UAA’s Licensure and Certification website (https://www.uaa.alaska.edu/academics/office-of-academic-affairs/licensure.cshtml/) for more information.

Admission Requirements

- Complete the Admission Requirements for Baccalaureate Degrees (p. 46)

Special Considerations

Admission to the major does not guarantee admission to the professional phase of the program.

Admission to the professional phase of the program:

Students typically apply for admission to the professional phase of the program during October of the academic year (AY) prior to the AY they intend to enter practicum and graduate. The BSW accepts applications for admission to the professional phase of the program only during the fall semester. Admission to the professional phase of the social work program is based upon the requirements listed below.

Prior to applying for admission to the professional phase of the program, students must:

- Earn a minimum cumulative GPA of 2.50
- Complete with a minimum grade of C, or be currently enrolled in, SWK A106, SWK A151 or SWK A243
- Meet with a Social Work Faculty Advisor
- Review and demonstrate understanding of program competencies, practice behaviors, and policies as outlined in the BSW Student Handbook
- Demonstrate commitment to social work values and ethics as established in the National Association of Social Workers Code of Ethics

Admission to the professional phase of the social work program is based on the following criteria:

- Meeting the above requirements
- Demonstrating beginning competence in client-centered communication and interviewing skills
- Demonstrating ethical and professional behaviors and interactions with peers, faculty, staff, and community partners
- The professional judgment of the social work faculty

Some students will not have all required courses completed at the time of application to the professional phase of the major. In this event, the student may be admitted with the understanding that they must complete all junior-level and below social work courses with a minimum grade of C prior to the fall semester in which they plan to enter their practicum placement, or their admission to the professional phase of the program will be denied. Other conditions may be added on a case-by-case basis.

Students may be denied admission to the professional phase of the program for failure to 1) meet application requirements; 2) demonstrate beginning competence in client-centered communication and interviewing skills in their application written statement and/or classroom assignments as determined by the professional judgment of the Social Work faculty, and/or 3) demonstrate ethical and professional behaviors and interactions as determined by the professional judgment of the Social Work faculty. The School of Social Work uses the National Association of Social Workers *Code of Ethics* and the School's Standards for Academic and Professional Behavior to determine ethical and professional behaviors. The standards are outlined in the BSW Handbook, which is available on the Social Work website and posted in all Social Work course Blackboard shells. In addition, students who cannot obtain a minimum grade of C in two (2) attempts for any given Social Work course will be denied admission.

Students must submit the following application materials to the School of Social Work by the last Friday in October prior to intended entry into fieldwork:

- A signed School of Social Work Application for Admission to the professional phase of the BSW and practicum for fall enrollment
- Written admissions statement
- Student practicum interest sheet

The admission committee reserves the right to request additional information if necessary. On occasion, applicants may be invited to an interview. The School of Social Work will notify applicants of their admission to the professional phase of the program after fall semester final grades are completed and prior to December 31st. Students who are not accepted into the professional phase of the program will be contacted by their advisor to discuss their options.

Only students who are admitted to the professional phase of the program may complete Spring junior and Fall and Spring senior courses. Students who are admitted into the professional phase of the program but fail to enroll in senior courses must reapply to the program.

Social work credits earned through other social work programs accredited through the Council on Social Work Education (CSWE) may be transferred to UAA and applied toward the BSW. Approval from the UAA School of Social Work is required for acceptance of social work transfer credits.

Adherence to the *Code of Ethics* established by the National Association of Social Workers is required in all Social Work courses and throughout the program.

Practicum

Students are eligible for practicum placement after they are accepted into the professional phase of the program. Practicum placements may become competitive if the number of applicants exceeds the number of practicum slots. The BSW and practicum agencies reserve the right to refuse and/or terminate students who do not meet a minimum standard of performance. Thus, while the School of Social Work makes every effort to find appropriate practicum placements for students, admittance to the BSW does not guarantee acceptance by cooperating social services agencies. The program does not grant social work course credit for life experience or previous work experience.

Prior to entering practicum, students must have completed the following:

- PSY A150 and (BIOL A102 or BIOL A100 or BIOL A108 or (BIOL A111 & BIOL A111L) or (BIOL A112 & BIOL A112L)) with a minimum grade of C
- The following social work courses with a minimum grade of C:

Code	Title	Credits
SWK A106	Introduction to Social Welfare	3
SWK A151	Introduction to Social Work	3
SWK A243	Diversity, Equity and Inclusion through Community Service Learning	3
SWK A330	Social Work Practice with Individuals	4
SWK A335	Human Behavior in the Social Environment	3
SWK A336	Writing for Social Work Practice	3
SWK A340	Social Work Practice with Families and Groups	3
SWK A345	Case Management in Social Work Practice	3
SWK A346	Research for Social Work Practice	3
Total		**28**

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (p. 442).
- Complete the General Education Requirements for Baccalaureate Degrees (p. 443).
- All graduating BSW students are required to complete program assessment activities as detailed in the current BSW Assessment Plan. There are no minimum scores required for graduation.
- Complete PSY A150 and (BIOL A102 or BIOL A100 or BIOL A108 or (BIOL A111 & BIOL A111L) or (BIOL A112 & BIOL A112L)) with a minimum grade of C.
- Complete all required Social Work courses with a minimum grade of C.
- Complete the following major requirements:

Code	Title	Credits
Liberal Arts Foundation Courses		
ANTH A200	Alaska Native Cultures	3
or ANTH A202	Cultural Anthropology	
BA A151	Business Foundations	3
or ECON A101	Principles of Microeconomics	
or ECON A102	Principles of Macroeconomics	
BIOL A102	Introductory Biology	3-6
or BIOL A100	Human Biology	
or BIOL A108	Principles and Methods in Biology	
or BIOL A111 & A111L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Lab	
or BIOL A112 & A112L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Lab	
ENGL A120	Reasoning, Thinking, and Discourse	3
or PHIL A301	Ethics	
or PHIL A302	Biomedical Ethics	
or PHIL A303	Environmental Ethics	
or PHIL A305	Professional Ethics	
PSY A150	Lifespan Development	3
SOC A101	Introduction to Sociology	3
Core Courses		
SWK A106	Introduction to Social Welfare	3
SWK A151	Introduction to Social Work	3
SWK A243	Diversity, Equity and Inclusion through Community Service Learning	3
SWK A330	Social Work Practice with Individuals	4
SWK A335	Human Behavior in the Social Environment	3
SWK A336	Writing for Social Work Practice	3
SWK A340	Social Work Practice with Families and Groups	3
SWK A345	Case Management in Social Work Practice	3
SWK A346	Research for Social Work Practice	3
SWK A428	Social Work Practice with Organizations and Communities	3
SWK A429	Trauma and Crisis Intervention in Social Work Practice	3
SWK A439	Social Welfare: Policies and Issues	3
SWK A495A	Social Work Practicum I	3
SWK A495B	Social Work Practicum II	3
Upper-division Social Work electives		9
Total		**70-73**

A minimum of 120 credits is required for the degree, of which 39 must be upper-division.

Honors in Social Work

The Bachelor of Social Work recognizes distinguished achievement by conferring programmatic honors in social work. In order to receive honors in social work, a student must meet the following requirements:

- Submit an intent to graduate with honors application to the BSW program coordinator during the spring of the junior year;
- Complete all requirements for the BSW. A minimum of 30 credits applicable to the BSW must be completed at UAA;

- Achieve a minimum GPA of 3.75 in upper-division (300- and 400-level) social work courses.

Successful completion of programmatic honors in social work in the UAA BSW earns the right to waive a regular review of an admission packet to the foundation curriculum of the UAA Master of Social Work (MSW). Students are responsible for completing a UAA Graduate Application for Admission and a program application for admission to the MSW. The application packet should be submitted to the MSW Admissions Committee by the application deadline, with a request to waive the regular review process. Admission to the full program will be granted if the applicant meets all of the requirements for programmatic honors. Students interested in waiving the foundation curriculum must apply for advanced standing with a full review.

Program Student Learning Outcomes

Students graduating with a Bachelor of Social Work will be able to:

- Demonstrate ethical and professional behavior.
- Advance human rights and social, racial, economic, and environmental justice.
- Engage anti-racism, diversity, equity, and inclusion (ADEI) in practice.
- Engage in practice-informed research and research-informed practice.
- Engage in policy practice.
- Engage with individuals, families, groups, organizations, and communities.
- Assess individuals, families, groups, organizations, and communities.
- Intervene with individuals, families, groups, organizations, and communities.
- Evaluate practice with individuals, families, groups, organizations, and communities.
- Integrate Alaska's unique opportunities and needs into professional practice, policy, and/or research.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
SOC A101	Introduction to Sociology	3
WRTG A111	Writing Across Contexts	3
GER Fine Arts		3
GER Quantitative Skills [1]		3
Elective		3
	Credits	**15**
Spring		
PSY A150	Lifespan Development	3
SWK A151	Introduction to Social Work	3
GER Humanities		3
GER Oral Communication Skills		3
GER Written Communication Skills (200-level)		3
	Credits	**15**
Second Year		
Fall		
BA A151 or ECON A101 or ECON A102	Business Foundations or Principles of Microeconomics or Principles of Macroeconomics	3

BIOL A100 or BIOL A102 or BIOL A108 or BIOL A111 ***and*** BIOL A111L or BIOL A112 ***and*** BIOL A112L	Human Biology or Introductory Biology or Principles and Methods in Biology or Human Anatomy and Physiology I ***and*** Human Anatomy and Physiology I Lab or Human Anatomy and Physiology II ***and*** Human Anatomy and Physiology II Lab	3-6
SWK A106	Introduction to Social Welfare	3
Elective		3
Elective (if needed to enroll in 15 credits)		3
	Credits	**15-18**
Spring		
ENGL A120 or PHIL A301 or PHIL A302 or PHIL A303 or PHIL A305	Reasoning, Thinking, and Discourse or Ethics or Biomedical Ethics or Environmental Ethics or Professional Ethics	3
SWK A243	Diversity, Equity and Inclusion through Community Service Learning	3
GER Humanities		3
GER Natural Sciences		3
GER Natural Sciences Laboratory (if not previously included)		1
Elective (if needed to enroll in 15 credits)		2-3
	Credits	**15-16**
Third Year		
Fall		
ANTH A200 or ANTH A202	Alaska Native Cultures or Cultural Anthropology	3
SWK A330	Social Work Practice with Individuals	4
SWK A335	Human Behavior in the Social Environment	3
SWK A336	Writing for Social Work Practice	3
Elective		2
	Credits	**15**
Spring		
SWK A340	Social Work Practice with Families and Groups	3
SWK A345	Case Management in Social Work Practice	3
SWK A346	Research for Social Work Practice	3
Elective		3
Upper Division Program Elective		3
	Credits	**15**
Fourth Year		
Fall		
SWK A428	Social Work Practice with Organizations and Communities	3
SWK A429	Trauma and Crisis Intervention in Social Work Practice	3
SWK A495A	Social Work Practicum I	3
Elective		3
Upper Division Program Elective		3
	Credits	**15**
Spring		
SWK A439	Social Welfare: Policies and Issues	3
SWK A495B	Social Work Practicum II	3
Elective		3
Elective		3
Upper Division Program Elective		3
	Credits	**15**
	Total Credits	**120-124**

[1] *STAT A200 or STAT A253 with a minimum grade of C or better is required for the Master of Social Work (MSW).*

Minor in Speech-Language Pathology

The Minor in Speech-Language Pathology provides candidates with an overview of the nature of human communication, including its origin, development and process. Candidates will also be introduced to common communication disorders and their impact on communication across the lifespan. The minor allows students to prepare for graduate study in speech-language pathology.

Note: The affiliated program in communication sciences and disorders through East Carolina University has requirements in addition to coursework required for the Minor in Speech-Language Pathology. Students are advised to contact the College of Health Student Success Center (https://www.uaa.alaska.edu/academics/college-of-health/students/advisors.cshtml/) for details.

Students majoring in another subject who wish to minor in speech-language pathology must complete the following requirements.

Code	Title	Credits
CSD A201	Foundations of Communication Disorders	3
CSD A301	Anatomy and Physiology of Speech and Hearing	3
CSD A302	Phonetics	3
CSD A303	Language Development Across the Lifespan	3

CSD A401	Phonology and Articulation Development and Disorders	3
CSD A402	Audiology	3
CSD A403	Aural Rehabilitation	3
Total		**21**

A total of 21 credits is required for this minor.

Post-Baccalaureate Certificate in Speech-Language Pathology

The Post-Baccalaureate Certificate in Speech-Language Pathology prepares professionals who already have baccalaureate degrees for application to graduate programs in speech-language pathology. A master's degree would prepare them to work with clients across the lifespan.

Those students who already have a baccalaureate degree may obtain a Post-Baccalaureate Certificate in Speech-Language Pathology by completing the following requirements.

Admission Requirements

- Complete the Admission Requirements for Post-Baccalaureate Certificate Programs (p. 45).
- Complete a baccalaureate degree with a minimum cumulative GPA of 2.75.

Graduation Requirements

- Complete the General University Requirements for Post-Baccalaureate Certificates (p. 461).
- Complete the following major requirements with a minimum grade of C. Satisfaction of all major requirements must be demonstrated through coursework completed after the award of the student's first baccalaureate degree.

Code	Title	Credits
CSD A301	Anatomy and Physiology of Speech and Hearing	3
CSD A302	Phonetics	3
CSD A303	Language Development Across the Lifespan	3
CSD A401	Phonology and Articulation Development and Disorders	3
CSD A402	Audiology	3
CSD A403	Aural Rehabilitation	3
CSD A410	Speech Science	3
CSD A411	Neurological Foundations of Speech and Hearing	3
Total		**24**

A minimum of 24 credits is required for the certificate.

Program Student Learning Outcomes

Students graduating with a Post-Baccalaureate Certificate in Speech Language Pathology will be able to:

- Identify anatomical structures and physiological processes that support the communication and swallowing processes.
- Describe the role of the systems of respiration, phonation, and articulation/resonance in the production of a spoken word.
- Identify milestones in normal speech and language development.
- Identify common disorders that affect the ability to communicate.
- Discuss the impact of culturally and linguistically diverse backgrounds on speech and language development and determination of speech or language difference vs. disorder.

Associate of Applied Science in Speech-Language Pathology Assistant

The Associate of Applied Science (AAS) in Speech-Language Pathology Assistant (SLPA) prepares students to work with speech and language disordered adults and children, including those from cultural and linguistically diverse populations. A speech-language pathology assistant works under the direct supervision of Alaska licensed, American Speech-Language Hearing Association (ASHA) certified speech-language pathologists to provide clerical support, administer speech, language and hearing screenings, assist in communication assessments, provide speech and language therapy services, and assist with documentation of such services.

Licensure and/or Certification

Successful completion of the program provides students with eligibility to sit for the American Speech-Language Hearing Association's Certification Exam for SLPA's and to apply for Alaska state licensure.

This program is designed to meet the educational requirements for professional licensure or certification in the State of Alaska. However, the program might not meet the educational requirements for professional licensure or certification in other states. Please see UAA’s Licensure and Certification website (https://www.uaa.alaska.edu/academics/office-of-academic-affairs/licensure.cshtml/) for more information.

Admission Requirements

- Complete the Admission Requirements for Associate Degrees (p. 46).

Graduation Requirements

- Complete the General University Requirements for Associate Degrees (p. 441).
- Complete the General Education Requirements for Associate of Applied Science Degrees (p. 441).
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
ANTH A200	Alaska Native Cultures	3
BIOL A111 & A111L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Lab	4
CSD A104	Speech and Language Development for the Speech-Language Pathology Assistant	3
CSD A105	Phonetics for Speech-Language Pathology Assistants	2
CSD A106	Anatomy & Physiology of Speech & Hearing for the Speech-Language Pathology Assistant	2
CSD A201	Foundations of Communication Disorders	3
CSD A211	Speech Disorders and Intervention for the Speech-Language Pathology Assistant	3
CSD A212	Language Disorders and Intervention for the Speech-Language Pathology Assistant	3
CSD A213	Clinical Methods, Documentation and Professional Issues for the Speech-Language Pathology Assistant	2
CSD A220	Communication Disorders in Low Incidence Populations for the Speech-Language Pathology Assistant	2
CSD A221	Assistive & Augmentative Communication for the Speech-Language Pathology Assistant	2
CSD A295	Speech-Language Pathology Assistant Practicum [1]	6
MATH A104	Technical Mathematics [2]	3
PSY A111	Introduction to Psychology	3
PSY A150	Lifespan Development	3
Complete at least 9 credits from the following:		9
CSD A301	Anatomy and Physiology of Speech and Hearing [3]	
CSD A302	Phonetics [3]	
CSD A303	Language Development Across the Lifespan [3]	
EDEC A105	Introduction to the Field of Early Childhood Education	
EDEC A107	Child Development and Learning	
HLTH A151	Breaking Trail on Your Health and Social Services Career	
HS A220	Introduction to Population Health Sciences	
MA A101	Medical Terminology	
STAT A200	Elementary Statistics	
SWK A243	Diversity, Equity and Inclusion through Community Service Learning	
Total		**53**

1 *CSD A295 can be taken in increments in at least two different clinical sites for a required total of 6 credits.*

2 *Or any MATH class that also satisfies the AAS Quantitative Skills GER.*

3 *For students pursuing a baccalaureate degree, this course meets the requirement for the Minor in Speech-Language Pathology.*

A minimum of 62 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with an Associate of Applied Science in Speech-Language Pathology Assistant will be able to:

1. Accurately select and administer screening instruments and calculations, taking cultural-linguistic factors into account, and report results to the Alaska licensed SLP
2. Effectively assist an Alaska licensed SLP with regard to establishing and sustaining a culturally responsive environment for screening and intervention
3. Comply with the Code of Ethics of the American Speech-Language Hearing Association and the Statutes and Regulations of the State of Alaska professional license for SLPAs
4. Demonstrate intermediate to advanced skills performing as a speech language pathology assistant by following documented treatment plans, assisting a speech language pathologist in service delivery, accurately documenting client performance, accurately recording data and preparing materials, demonstrating appropriate written and oral communication, interpersonal skills, ethical behaviors and health and safety precautions

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not

indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.

- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
BIOL A111 & A111L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Lab	4
CSD A104	Speech and Language Development for the Speech-Language Pathology Assistant	3
MATH A104	Technical Mathematics	3
PSY A111	Introduction to Psychology	3
	Credits	**13**
Spring		
CSD A106	Anatomy & Physiology of Speech & Hearing for the Speech-Language Pathology Assistant	2
CSD A201	Foundations of Communication Disorders	3
PSY A150	Lifespan Development	3
WRTG A111	Writing Across Contexts	3
GER Oral Communication Skills		3
	Credits	**14**
Summer		
CSD A105	Phonetics for Speech-Language Pathology Assistants	2
CSD A211	Speech Disorders and Intervention for the Speech-Language Pathology Assistant	3
CSD A212	Language Disorders and Intervention for the Speech-Language Pathology Assistant	3
	Credits	**8**
Second Year		
Fall		
ANTH A200	Alaska Native Cultures	3
CSD A213	Clinical Methods, Documentation and Professional Issues for the Speech-Language Pathology Assistant	2
CSD A220	Communication Disorders in Low Incidence Populations for the Speech-Language Pathology Assistant	2
CSD A295	Speech-Language Pathology Assistant Practicum	3
GER Written Communication Skills		3
	Credits	**13**
Spring		
CSD A221	Assistive & Augmentative Communication for the Speech-Language Pathology Assistant	2
CSD A295	Speech-Language Pathology Assistant Practicum	3
Program Elective		3
Program Elective		3
Program Elective		3
	Credits	**14**
	Total Credits	**62**

Associate of Applied Science in Surgical Technology

The Associate of Applied Science (AAS) in Surgical Technology provides graduates the training to work in the operating room of hospitals and surgery centers alongside surgeons, nurses and anesthesiologists while assisting the surgeon. Graduates may work as surgical technologists, sterile processors, sterile processing managers, and medical sales representatives. After gaining clinical experience, graduates may teach or become a certified first assistant.

The AAS in Surgical Technology is accredited by the Commission on Accreditation of Allied Health Education Programs (http://www.caahep.org) upon the recommendation of the Accreditation Review Council for Surgical Technology and Surgical Assisting (ARC/STSA).

Admission Requirements

- Complete the Admission Requirements for Associate Degrees (p. 46).
- A cumulative high school or postsecondary GPA of 2.5
- 3 years of high school science, with a recommendation for Anatomy and Physiology or Human Biology, or the postsecondary equivalent
- 3 years of high school math, with an emphasis on algebra, trigonometry, geometry, and analysis, or the post secondary equivalent.
- Apply through the UAA Admissions process, which will ask you to submit the above documentation and respond to application questions.
- Once you apply to the program, submit all required documentation, and respond to the application questions, there will be an interview with the program admissions committee.

Special Considerations

Students selected for the AAS in Surgical Technology may be asked to provide documentation for clinical site placement for the following:

- Immunizations: Hepatitis B titer showing immunity, Hepatitis A, MMR, TDap, Varicella, Influenza vaccine within the previous twelve months, and two-step PPD test or Quantiferon Gold
- Current Basic Life Support (BLS) for Health Care Provider certification
- A national-level criminal background check
- A drug-screening lab test
- Current health insurance

Graduation Requirements

- Complete the General University Requirements for Associate Degrees. (p. 441)
- Complete the General Education Requirements for Associate of Applied Science Degrees. (p. 441)
- Complete all required Surgical Technology (SURG) courses with a minimum grade of C.
- Complete the following major requirements:

Code	Title	Credits
BIOL A111 & A111L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Lab	4
BIOL A112 & A112L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Lab	4
BIOL A240	Introductory Microbiology for Health Sciences	3
BIOL A240L	Introductory Microbiology for Health Sciences Laboratory	1
MA A101	Medical Terminology	3
MA A104	Essentials of Human Disease	3
SURG A150	Introduction to Surgical Technology	2
SURG A160	Fundamentals of Surgical Technology	2
SURG A160L	Fundamentals of Surgical Technology Laboratory	4
SURG A210	Surgical Procedures I	2
SURG A210L	Surgical Procedures I Laboratory	4
SURG A220	Surgical Procedures II	2
SURG A220L	Surgical Procedures II Laboratory	4
SURG A292	Surgical Technology Seminar	1
SURG A295	Surgical Technology Practicum	11
Total		**50**

A minimum of 62 credits is required for this degree.

Program Student Learning Outcomes

Graduates of the Associate of Applied Science in Surgical Technology will be able to:

- Apply knowledge and skills of biological sciences in the perioperative setting.
- Communicate effectively with surgical team members, patients and their families.
- Apply the principles of aseptic technique in the perioperative setting.
- Organize routine instrumentation and supplies within the perioperative environment.
- Demonstrate knowledge of pharmacology and math calculation principles related to the surgical environment.
- Collaborate with members of the surgical team to deliver quality patient care with consideration of the unique psychological and social needs of each patient.
- Demonstrate skills and behaviors necessary to function as a member of a surgical team.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

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- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
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- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be

upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
BIOL A111 & A111L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Lab	4
MA A101	Medical Terminology	3
GER Oral Communication Skills		3
GER Quantitative Skills		3
GER Written Communication Skills		3
	Credits	**16**
Spring		
BIOL A112 & A112L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Lab	4
BIOL A240 & A240L	Introductory Microbiology for Health Sciences and Introductory Microbiology for Health Sciences Laboratory	4
MA A104	Essentials of Human Disease	3
GER Written Communication Skills		3
	Credits	**14**
Summer		
SURG A150	Introduction to Surgical Technology [2]	2
SURG A160 & A160L	Fundamentals of Surgical Technology and Fundamentals of Surgical Technology Laboratory	6
GER (option for summer) [1]		
	Credits	**8**
Second Year		
Fall		
SURG A210	Surgical Procedures I	2
SURG A210L	Surgical Procedures I Laboratory	4
SURG A220	Surgical Procedures II	2
SURG A220L	Surgical Procedures II Laboratory	4
	Credits	**12**
Spring		
SURG A292	Surgical Technology Seminar	1
SURG A295	Surgical Technology Practicum	11
	Credits	**12**
	Total Credits	**62**

[1] *Any GER course could be completed in the summer semester.*
[2] *SURG A150 could be taken in first-year spring or summer.*

Community and Technical College

Community and Technical College (https://www.uaa.alaska.edu/academics/community-and-technical-college/)

Department of Automotive and Diesel Power (https://www.uaa.alaska.edu/academics/community-and-technical-college/departments/transportation-and-power/)
Auto Diesel Technology Building (ADT)
(907) 786-6475

Department of Aviation Technology (https://www.uaa.alaska.edu/academics/community-and-technical-college/departments/aviation-technology/)
2811 Merrill Field Drive
(907) 786-7200

Department of Communication (https://www.uaa.alaska.edu/academics/community-and-technical-college/departments/communication/index.cshtml/)
Social Sciences Building (SSB), Suite 214
(907) 786-6856

Department of Computer Systems and Networking (https://www.uaa.alaska.edu/academics/community-and-technical-college/departments/construction-design-and-safety/computer-and-networking-technology/index.cshtml/)
Social Sciences Building (SSB), Room 221
(907) 786-6465

Department of Construction Management (https://www.uaa.alaska.edu/academics/community-and-technical-college/departments/construction-design-and-safety/construction-management/)
Social Sciences Building (SSB), Room 221
(907) 786-6465

Department of Culinary Arts (https://www.uaa.alaska.edu/academics/community-and-technical-college/departments/culinary-arts/)
Cuddy Hall (CH)
(907) 786-1487

Department of Occupational Safety and Health (https://www.uaa.alaska.edu/academics/community-and-technical-college/departments/construction-design-and-safety/occupational-safety-health/index.cshtml/)
Social Sciences Building (SSB), Room 221
(907) 786-6465

Department of Quantitative Studies (https://www.uaa.alaska.edu/academics/community-and-technical-college/departments/quantitative-studies/index.cshtml/)
Social Sciences Building (SSB), Suites 154 and 158
(907) 786-6856

Department of Technology Studies (https://www.uaa.alaska.edu/academics/community-and-technical-college/)
Engineering and Industry Building (EIS), Suite 409
(907) 786-6400

Department of University Studies (https://www.uaa.alaska.edu/academics/community-and-technical-college/departments/university-studies/)
Cuddy Center, Room 126
(907) 786-1487

Department of Welding and Nondestructive Testing (https://www.uaa.alaska.edu/academics/community-and-technical-college/departments/transportation-and-power/)
Gordon Hartlieb Hall (GHB), Room 111
(907) 786-6475

Department of Writing (https://www.uaa.alaska.edu/academics/community-and-technical-college/departments/writing/index.cshtml/)
Administration/Humanities Building (AHS), Suite 103
(907) 786-6856

Air Force ROTC

The Air Force ROTC program educates and trains students to serve as officers in the active duty US Air Force and U.S. Space Force. Air Force ROTC has three- and four-year programs that culminate in a commission as a second lieutenant in the Air Force. The academic curriculum includes studies in leadership and management, national security affairs, and the development of air and space power. The Leadership Laboratory consists of practical military training, physical fitness, leadership exercises and immersion with the local Air Force installation. Air Force ROTC is not a degree- or certificate-granting program. Academic courses (except AIRS A150) are open to all UAA students. Students who have joined the Cadet Wing and do not have a medical condition that would preclude service in the Armed Forces may participate in the Leadership Laboratory AIRS A150.

To become an officer through Air Force ROTC, a student must, at a minimum, complete the three-year program, a summer field training encampment, and earn a baccalaureate degree in any major from UAA. Upon graduation and commissioning, new lieutenants must serve a minimum of four years in the Air Force. Those who successfully complete Air Force pilot training must serve 10 years after training.

In order to receive a minor in National Defense, Strategic Studies and Leadership: Air Force Emphasis, students must complete the declaration of a minor form (https://www.uaa.alaska.edu/records/degree_Services/declaration_minor_form_login.cfm?CFID=34965222&CFTOKEN=97904871) on the UAA website.

Two hours of mandatory physical training (PT) are required each week. Times and location of PT sessions will be announced each term.

Three-Year Program

Available to UAA students with three years remaining until graduation. Cadets must take the courses listed below and attend a summer field training encampment prior to starting the 300-level courses.

Code	Title	Credits
AIRS A101	Heritage and Values of the Department of the Air Force I	1
AIRS A102	Heritage and Values of the Department of the Air Force II	1
AIRS A150	US Air Force Leadership Laboratory [1]	6
AIRS A201	Team and Leadership Fundamentals I	1
AIRS A202	Team and Leadership Fundamentals II	1
AIRS A301	Leading People and Effective Communication I	3
AIRS A302	Leading People and Effective Communication II	3
AIRS A401	National Security, Leadership Responsibilities, and Commissioning Preparation I	3
AIRS A402	National Security, Leadership Responsibilities, and Commissioning Preparation II	3

[1] *Cadets take AIRS A150 each semester for a total of six semesters and 6 credits. Academic courses are taken in the order listed, beginning with AIRS A101 and AIRS A201 taken concurrently in the fall semester.*

Four-Year Program

Available to UAA students with four or more years remaining until graduation. Cadets must take the courses listed below and attend a summer field training encampment prior to starting the 300-level courses.

Code	Title	Credits
AIRS A101	Heritage and Values of the Department of the Air Force I	1
AIRS A102	Heritage and Values of the Department of the Air Force II	1
AIRS A150	US Air Force Leadership Laboratory [1]	8
AIRS A201	Team and Leadership Fundamentals I	1
AIRS A202	Team and Leadership Fundamentals II	1
AIRS A301	Leading People and Effective Communication I	3
AIRS A302	Leading People and Effective Communication II	3
AIRS A401	National Security, Leadership Responsibilities, and Commissioning Preparation I	3
AIRS A402	National Security, Leadership Responsibilities, and Commissioning Preparation II	3

[1] *Cadets must take AIRS A150 each semester for a total of eight semesters and 8 credits. Academic courses are taken in the order listed, beginning with AIRS A101 in the fall semester.*

Scholarships and Incentive Payments

Air Force ROTC has numerous scholarship and incentive programs for high school seniors planning to enroll at UAA and for college students currently enrolled or planning to enroll at UAA. All students receiving a scholarship or incentive payment must join the Cadet Wing and be a full-time student (at least 12 semester credits for undergraduate or 9 semester credits for graduate students).

1. High school seniors can compete for Air Force ROTC scholarships that pay tuition, fees, and books at any university with an Air Force ROTC program. The scholarship includes a monthly stipend. Students can submit applications to w (http://www.afrotc.com)ww.afrotc.com (https://www.afrotc.com/). Applications must be started no later than December 31 of a student's senior year but should be started well in advance to ensure all materials are completed.
2. Air Force ROTC at UAA has several scholarship options for college students. These scholarships cover tuition, fees, and books for sophomores, juniors, and seniors. Scholarships also include a monthly stipend. Students compete for these scholarships during the academic year prior to activation. For example, a 100-level cadet can compete for a scholarship that would start in the fall of the cadet's 200-level year.
3. All scholarships and incentives are subject to federally mandated age restrictions. Contact Air Force ROTC at UAA for more information.

Commissioning

After completing the AFROTC program, graduating from UAA and passing a commissioning physical, cadets will receive a commission as a second lieutenant in the US Air Force or U.S. Space Force.

1. Cadets selected for pilot training will usually begin the training within one year of commissioning. Officers who successfully complete Air Force pilot training must serve 10 years. Cadets compete for pilot training slots in their 300-level year. The pilot selection board considers a variety of factors including GPA, cadet ranking, fitness test scores, previous flight time, and pilot aptitude test scores when assessing candidates. Air Force ROTC at UAA has more information on medical and age requirements for Air Force pilots.
2. Cadets not qualified for nor interested in pilot training can compete for slots in other career fields. The Air Force and Space Force have a variety of operations, administrative, engineering and scientific career opportunities. Cadets compete for and receive career assignments during the 400-level year and will serve four years (minimum) in the US Air Force or U.S. Space Force after commissioning.
3. Cadets may also compete for medical school appointments with the potential for scholarships. Air Force ROTC at UAA has more information on this highly competitive program.

Associate of Applied Science in Air Traffic Control

The Associate of Applied Science (AAS) in Air Traffic Control prepares students for hire at the Federal Aviation Administration (FAA) Training Academy. The AAS in Air Traffic Control also prepares students to take the FAA Flight Dispatcher exam and prepares them for entry-level jobs in the flight dispatch field.

The AAS in Air Traffic Control constitutes the first two years of the Bachelor of Science in Aviation Technology.

Admission Requirements

- Complete the Admission Requirements for Associate Degrees (p. 46).

Special Considerations

UAA has no restrictions on age or physical condition of students. However, students desiring employment with the Federal Aviation Administration (FAA) should be aware of employment requirements:

- Medical Certificate is required as depicted in FAR 65.49 and 67 Subpart C.
- Thirty-year-old maximum age restriction for students anticipating employment in terminal or en route options.
- Students must receive a PASS score on the selection screening examination administered by the FAA, but this is subject to change. The examination provides a systematic process for continued enhancement of air traffic selection and training by testing candidates for recognition and cognitive skills required in the air traffic specialty and to identify the "composite controller."

Graduation Requirements

- Complete the General University Requirements for Associate Degrees. (p. 441)
- Complete the General Education Requirements for Associate of Applied Science Degrees. (p. 441)
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
Core Courses		
ATA A233	Aviation Safety	3
ATC A143	ATC Regulations	3
ATC A144	ATC Flight Procedures	3
ATC A147	Air Traffic Communications	3
ATC A239 & A239L	Fundamentals of Nonradar Separation and Fundamentals of Nonradar Laboratory	5

ATC A242 & A242L	ATC Terminal Radar Procedures and ATC Terminal Radar Procedures Lab	5
ATC A243 & A243L	ATC Enroute Procedures and ATC Enroute Procedures Lab	5
ATC A251	Flight Dispatcher Overview	3
ATC A325	Tools for Weather Briefing	3
ATC A341 & A341L	Control Tower Operations and Control Tower Operations Lab	5
ATC A351	Flight Dispatcher Operations	3
ATC A440	Facility Operation and Administration	3
ATP A100	Private Pilot Ground School	3
ATP A235	Elements of Weather	3
Complete three credits from the following:		3
ATA A133	Aviation Law and Regulations	
ATA A134	Principles of Aviation Administration	
ATA A331	Human Factors in Aviation	
ATA A335	Airport Operations	
ATA A336	Air Service Operations	
ATA A337	Airline Operations	
ATA A425	Civil Aviation Security	
ATA A431	Aircraft Accident Investigation	
ATA A490	Advanced Topics in Aviation Technology	
ATP A116	Instrument Ground School	
ATP A200	Commercial Ground School	
Total		**53**

A minimum of 65 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with an Associate of Applied Science in Air Traffic Control will be able to:

1. Demonstrate knowledge of aircraft operating limitations and performance, including methods of air and ground navigation within the National Airspace System.
2. Demonstrate knowledge of weather and atmospheric processes and how weather phenomena affect aviation operations.
3. Demonstrate knowledge of Federal Regulations and the U.S. air traffic control system interactions, including FAA publications.
4. Demonstrate knowledge of fundamentals of aircraft separation in radar, nonradar, and terminal environments, as well as operating techniques of ATC facilities in visual and instrument conditions.
5. Demonstrate awareness of ATC industry trends, future developments, global implications, and current management practices and techniques.
6. Demonstrate knowledge of flight dispatcher operations, including weight and balance, flight planning, and fuel requirements.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
ATC A143	ATC Regulations	3
ATC A144	ATC Flight Procedures [1]	3
ATC A147	Air Traffic Communications	3
ATP A235	Elements of Weather	3
WRTG A111	Writing Across Contexts	3
	Credits	**15**
Spring		
ATA A233	Aviation Safety	3
ATC A239 & A239L	Fundamentals of Nonradar Separation and Fundamentals of Nonradar Laboratory [2]	5
ATC A325	Tools for Weather Briefing [2]	3
ATP A100	Private Pilot Ground School	3

GER Quantitative Skills		3
	Credits	**17**
Second Year		
Fall		
ATC A242 & A242L	ATC Terminal Radar Procedures and ATC Terminal Radar Procedures Lab [1]	5
ATC A243 & A243L	ATC Enroute Procedures and ATC Enroute Procedures Lab [1]	5
ATC A251	Flight Dispatcher Overview [1]	3
GER Oral Communication Skills		3
	Credits	**16**
Spring		
ATA A133 or ATA A134	Aviation Law and Regulations or Principles of Aviation Administration	3
ATC A341 & A341L	Control Tower Operations and Control Tower Operations Lab [2]	5
ATC A351	Flight Dispatcher Operations [2]	3
ATC A440	Facility Operation and Administration [2]	3
WRTG A212	Writing and the Professions	3
	Credits	**17**
	Total Credits	**65**

[1] *Offered in Fall only*
[2] *Offered in Spring only*

Minor in Air Traffic Control

Students majoring in another discipline or pursuing an aviation degree who wish to minor in air traffic control (ATC), must complete the following requirements. Students completing the ATC Minor will be eligible for recommendation for hire as air traffic controllers under the Federal Aviation Administration (FAA) College Training Initiative (CTI) program. Completion of the ATC Minor does not guarantee hire by the FAA.

Special Considerations

UAA has no restrictions on age or physical condition of students. However, students desiring employment with the FAA should be aware of employment requirements:

1. Medical Certificate is required as depicted in FAR 65.49 and 67 Subpart C.
2. Thirty-year-old maximum age restriction for students anticipating employment in terminal or en route options.
3. For employment considerations with the FAA, students must receive a PASS score on the Air Traffic-Selection and Training (ATSAT) examination administered by the FAA. The examination provides a systematic process for continued enhancement of air traffic selection and training by testing candidates for recognition and cognitive skills required in the air traffic specialty and to identify the “composite controller.”

Advising

All students must meet with an academic advisor in the Aviation Technology Division (ATD) prior to beginning any program of study and are encouraged to meet each semester for the purpose of reviewing their academic progress and planning future courses. It is particularly important for students to meet with their advisor whenever academic difficulties arise. Degree check sheets are available in the ATD office.

FAA Recommendation for Employment

To be eligible for FAA employment, a student must achieve a C or better in the following air traffic control courses:

Code	Title	Credits
ATC A143	ATC Regulations	3
ATC A144	ATC Flight Procedures	3
ATC A147	Air Traffic Communications	3
ATC A242 & A242L	ATC Terminal Radar Procedures and ATC Terminal Radar Procedures Lab	5
ATC A243 & A243L	ATC Enroute Procedures and ATC Enroute Procedures Lab	5
ATC A341 & A341L	Control Tower Operations and Control Tower Operations Lab	5

Program Requirements

1. In order to advance to 200 level ATC classes (ATC A242, ATC A242L, ATC A243, ATC A243L) students must have a C or better in ATC A143, ATC A144 and ATC A147.
2. Students may repeat ATC A143, ATC A144, and ATC A147 only once due to performance.
3. Students must complete the following courses:

Code	Title	Credits
ATC A143	ATC Regulations	3
ATC A144	ATC Flight Procedures	3
or ATP A116	Instrument Ground School	
ATC A147	Air Traffic Communications	3
ATC A325	Tools for Weather Briefing	3
ATC A440	Facility Operation and Administration	3
or ATA A492	Air Transportation System Seminar	
ATP A235	Elements of Weather	3
Select one of the following:		5
ATC A242 & A242L	ATC Terminal Radar Procedures and ATC Terminal Radar Procedures Lab	
ATC A243 & A243L	ATC Enroute Procedures and ATC Enroute Procedures Lab	

ATC A341 & A341L	Control Tower Operations and Control Tower Operations Lab	
Total		**23**

A total of 23 credits is required for the minor; 6 credits must be upper division.

Bachelor of Science in Applied Technologies Leadership

The Bachelor of Science (BS) in Applied Technologies Leadership provides a bachelor's degree completion option for students with an Associate of Applied Science (AAS) or 45 technical credits in any field. Courses are consistently offered via online and distance delivery to afford maximum flexibility for enrolled students.

The BS in Applied Technologies Leadership is a student-centered program that prepares graduates for leadership positions in technical fields. The program allows students to design a program of study that complements their technical proficiencies. Students entering the program come from many disciplines and have earned an AAS, or a minimum of 45 related technical specialty credits, from institutionally-accredited institutions. This degree is appropriate for graduates of applied science and similar programs at other institutions, as well as a wide array of industrial technology professionals and military students with the required credits in their career field.

Students complete a common core of advanced professional and leadership skills and work with a faculty member to design a meaningful study plan with upper-division coursework appropriate to advance in their discipline. Students use this program to explore and prepare for their future, integrate their coursework with their experience, and synthesize their learning through a capstone experience.

Admission Requirements

- Complete the Admission Requirements for Baccalaureate Degrees. (p. 46)

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (p. 442).
- Complete the General Education Requirements for Baccalaureate Degrees (p. 443).
- Complete the following major requirements with a minimum grade of C:
  - Students must work with a faculty member to design a learning plan. These courses should focus on specialized knowledge required for advancement in a student's field or acquiring a broader knowledge base of a particular skill.

Code	Title	Credits
TECH A305	Applied Leadership for Technicians	3
TECH A412	Field-Based Study	1-9
TECH A421	Training & Development for Technical Managers	3
TECH A433	Project Design, Implementation and Control	3
TECH A453	Capstone Project	3
Complete 3 credits of an upper-division safety course:		3
ATA A331	Human Factors in Aviation	
ATA A431	Aircraft Accident Investigation	
OSH A305	Incident Investigation and Analysis	
OSH A310	Human Factors	
OSH A405	Construction Industry Safety Management	
OSH A450	Risk Management for Safety and Health	
Complete any upper division COMM course or the following:		3
BA A300	Organizational Theory and Behavior	
Complete 3 credits of an upper-division ethics course:		3
BA A388	Globalization and Business Environment	
PHIL A301	Ethics	
PHIL A302	Biomedical Ethics	
PHIL A303	Environmental Ethics	
PHIL A305	Professional Ethics	
Total		**22-30**

A minimum of 120 credits is required for the degree, of which 39 must be upper-division.

Program Student Learning Outcomes

Upon completion of the Bachelor of Science in Applied Technologies Leadership, graduates will be able to:

- Integrate appropriate strategic communication tools and techniques in a wide variety of business contexts
- Apply appropriate management tools and techniques to manage various types of projects
- Apply accepted leadership and management practices to promote ethical behavior and sustainable quality performance in organizations
- Develop policies and procedures to ensure a safe, healthy, and environmentally sound workplace
- Develop strategies to support an organization's vision, mission, and capabilities while motivating and leading internal and external constituents.

Associate of Applied Science in Apprenticeship Technology

The Associate of Applied Science (AAS) in Apprenticeship Technology provides participants in US Department of Labor (USDOL) approved apprenticeships to earn a degree while receiving up to 38 credits

for the required Related Technical Instruction components of their apprenticeship training. Credits are awarded based upon American Council on Education (ACE) recommendations or other nationally-recognized standards.

Apprentices in any occupation for which USDOL approved apprenticeship options are available may enter the program. Examples include (but are not limited to) construction trades, mining and maritime operations, and certain automotive, aviation, allied health and hospitality careers. UAA does not place students in apprenticeships. While the program can direct students to the opportunities, it is the student's responsibility to arrange the apprenticeship.

The AAS in Apprenticeship Technology constitutes the first two years of the Bachelor of Science (BS) in Applied Technologies Leadership.

Admission Requirements

- Complete the Admission Requirements for Associate Degrees (p. 46).
- Present documentation of acceptance into a registered apprenticeship program approved by the U.S. Department of Labor, Office of Apprenticeship.

Graduation Requirements

- Complete the General University Requirements for Associate Degrees. (p. 441)
- Complete the General Education Requirements for Associate of Applied Science Degrees. (p. 441)
- Up to 38 credits of Related Technical Instruction from a registered apprenticeship program approved by the U.S. Department of Labor, Office of Apprenticeship may be approved to count toward the AAS in Apprenticeship Technology.
- Remaining courses must be advisor approved and linked to an identified education or career pathway. All these courses must be completed with minimum grade of C.

Code	Title	Credits
Advisor-approved courses as required to meet the 60 credit minimum for AAS degrees.		60
Total		**60**

A minimum of 60 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with an Associate of Applied Science in Apprenticeship Technology will be able to:

- Demonstrate effective communication skills needed in the workplace.
- Articulate how their academic coursework complements their knowledge and skills in their chosen field.
- Demonstrate entry-level knowledge and skills for technical applications related to their chosen field.

Associate of Applied Science in Architectural and Engineering Technology

The Associate of Applied Science (AAS) in Architectural and Engineering Technology prepares students to work as support personnel in the Architecture, Engineering, and Construction (AEC) industry. The program emphasizes the development of creative design thinking skills and digital software skills needed to solve challenges confronted by architects, engineers, and constructors.

Admission Requirements

- Complete the Admission Requirements for Associate Degrees (p. 46).

Graduation Requirements

- Complete the General University Requirements for Associate Degrees (p. 441).
- Complete the General Education Requirements for Associate of Applied Science Degrees (p. 441).
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
AET A101	Fundamentals of Construction Documents	3
AET A102	Methods and Materials of Building Construction	3
AET A123	Codes and Standards	3
AET A181	Fundamentals of Building Information Modeling (BIM)	3
AET A213	Fundamentals of Civil Construction	4
AET A242	Mechanical, Electrical and Plumbing Systems	4
AET A285	Design Studio 1	5
AET A286	Design Studio 2	5
ART A105	Beginning Drawing	3
ART A160	Art Appreciation	3
ART A261	History of Western Art I	3
or ART A262	History of Western Art II	
CM A232	Statics and Strength of Materials	3
CM A422	Sustainability in the Built Environment	3
Total		**45**

A minimum of 60 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with an Associate of Applied Science in Architectural and Engineering Technology will be able to:

- Demonstrate skill and proficiency in computer-aided drafting and design (CADD) and 3-D modeling
- Demonstrate knowledge of drawing conventions including symbols, line types, line weights, and dimension styles as applicable to the design discipline
- Visualize and translate drawing information to actual physical objects and completed construction components
- Demonstrate an understanding of the role and purpose of building codes and standards as they pertain to the life, health, and safety of the public
- Demonstrate an understanding of the role, duties, and responsibilities of design team members
- Demonstrate an understanding of the elements of the construction document set and the role of construction documents as communication tools for the construction contract
- Demonstrate an understanding of the construction process from the transformation of an idea or need into a completed project
- Demonstrate communication skills to be successful in the employment environment
- Demonstrate critical thinking and problem-solving skills in the employment environment

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (https://uaa-alaska-test.courseleaf.com/academicpoliciesprocesses/academicstandardsregulations/courseplacement/), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (https://uaa-alaska-test.courseleaf.com/undergraduateprograms/baccalaureaterequirements/gers/). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
AET A101	Fundamentals of Construction Documents	3
AET A102	Methods and Materials of Building Construction	3
ART A160	Art Appreciation	3
MATH A105	Intermediate Algebra	4
WRTG A111	Writing Across Contexts	3
	Credits	**16**
Spring		
ART A105	Beginning Drawing	3
AET A181	Fundamentals of Building Information Modeling (BIM)	3
ART A261 or ART A262	History of Western Art I or History of Western Art II	3
COMM A111	Fundamentals of Oral Communication	3
PHYS A115 & A115L	Physical Science and Physical Science Lab	4
WRTG A212	Writing and the Professions	3
	Credits	**19**
Second Year		
Fall		
AET A123	Codes and Standards	3
AET A242	Mechanical, Electrical and Plumbing Systems	4
AET A285	Design Studio 1	5
CM A232	Statics and Strength of Materials	3
	Credits	**15**
Spring		
AET A213	Fundamentals of Civil Construction	4
AET A286	Design Studio 2	5
CM A422	Sustainability in the Built Environment	3
	Credits	**12**
	Total Credits	**62**

Army ROTC

The Army Reserve Officers' Training Corps (ROTC) Program is America's primary officer training program. Army ROTC, in a cooperative effort by the United States Army and UAA, educates, trains and prepares students to serve as officers in the Regular Army, Army Reserve or Army National Guard. Army ROTC has two-, three- and

four-year programs that lead to a commission as a second lieutenant. Army ROTC is divided into a basic course of study for freshmen and sophomores and the advanced course of study for juniors and seniors. Programs and courses can be adjusted to meet specific needs of individual students who desire to enroll but are past their freshmen year. Prior to completing Army ROTC, students may receive a minor in National Defense, Strategic Studies and Leadership: Army Emphasis. The courses focus on military history, Army force structure, leadership, time and stress management, decision making through academic instruction, and operations in the contemporary operating environment. Non-contracted students may take the 100- and 200-level academic courses without incurring a military obligation. However, only contracted cadets may take MILS A302, MILS A401 and MILS A402.

The leadership and physical training laboratory provides practical military training. Activities include staff rides to Army bases, physical fitness training, conducting drill and ceremony, and leadership exercises. To attend the leadership laboratory, UAA students must not have a medical condition that would preclude service in the Armed Forces.

To become an officer through Army ROTC, a student must, at a minimum, complete the two-year program (300- and 400-level courses plus leadership laboratory), the U.S. Army Leader Development and Assessment Course, and earn a baccalaureate degree in any major from UAA. Upon graduation and commissioning, new lieutenants must serve eight years in the regular Army, Army Reserves, and/or Army National Guard.

In order to receive a minor in National Defense, Strategic Studies, and Leadership: Army Emphasis, students must complete the declaration of a minor form (http://www.uaa.alaska.edu/records/graduation/declaration_minor_form_login.cfm) on the UAA website.

Three hours of mandatory Physical Training (PT) and a two-hour leadership lab are required each week. Times and location of PT sessions to be announced.

Two-Year Program

Available to UAA students with two years remaining until graduation: students complete the U.S. Army Leader's Training Course, the U.S. Army Leader Development and Assessment Course, and the following courses (19 credits):

Code	Title	Credits
MILS A150	Army ROTC Leadership and Physical Training Laboratory [1]	4
MILS A301	Adaptive Team Leadership	3
MILS A302	Applied Team Leadership	3
MILS A401	Adaptive Leadership	3
MILS A402	Leadership in a Complex World	3
MILS A450	History of the United States Army	3
Total		**19**

[1] *Students take MILS A150 each semester for a total of four semesters and 4 credits. Academic courses are taken in the order listed, beginning with MILS A301 in the fall semester. MILS A450 may be taken at any time throughout the program.*

Three-Year Program

Available to UAA students with three years remaining until graduation: students complete the U.S. Army Leader Development and Assessment Course and the following courses (27 credits):

Code	Title	Credits
MILS A150	Army ROTC Leadership and Physical Training Laboratory [1]	6
MILS A201	Foundations of Leadership	3
MILS A202	Foundations of Tactical Leadership	3
MILS A301	Adaptive Team Leadership	3
MILS A302	Applied Team Leadership	3
MILS A401	Adaptive Leadership	3
MILS A402	Leadership in a Complex World	3
MILS A450	History of the United States Army	3
Total		**27**

[1] *Students take MILS A150 each semester for a total of six semesters and 6 credits. Academic courses are taken in the order listed, beginning with MILS A201 in the fall semester. MILS A450 may be taken at any time throughout the program.*

Four-Year Program

Available to UAA students with four years remaining until graduation: students complete the U.S. Army Leader Development and Assessment Course and the following courses (31 credits):

Code	Title	Credits
MILS A101	Leadership and Personal Development	1
MILS A102	Introduction to Tactical Leadership	1
MILS A150	Army ROTC Leadership and Physical Training Laboratory (1)	8
MILS A201	Foundations of Leadership	3
MILS A202	Foundations of Tactical Leadership	3
MILS A301	Adaptive Team Leadership	3
MILS A302	Applied Team Leadership	3
MILS A401	Adaptive Leadership	3
MILS A402	Leadership in a Complex World	3
MILS A450	History of the United States Army	3
Total		**31**

[1] *Students take MILS A150 each semester for a total of eight semesters and 8 credits. Academic courses are taken in the order listed, beginning with MILS A201 in the fall semster. MILS A450 may be taken at any time throughout the program.*

Scholarships and Incentive Payments

Army ROTC has numerous scholarship and incentive programs for high school seniors planning to enroll at UAA and for college students currently enrolled or planning to enroll at UAA. All students receiving a scholarship or incentive payment must be a full-time student (at least 12 semester credits for undergraduate or 9 semester credits for graduate students).

1. High school seniors can compete for Army ROTC scholarships that pay tuition, fees, and books at any university with an Army ROTC program. The scholarship includes a monthly stipend. Students can obtain applications on the Army ROTC website (http://www.goarmy.com/rotc/scholarships.html).
   Army ROTC at UAA has several scholarship options for college students. These scholarships cover tuition, fees, and books for both undergraduate and graduate students. Scholarships also include a monthly stipend. Students compete for these scholarships during the academic term prior to activation. For example, a fall 100-level student can compete for a scholarship that would start in the spring of the student's 100-level year.
2. All scholarships and incentives are subject to federally mandated age restrictions.

Commissioning

After completing the Army ROTC program, graduating from UAA, and passing a commissioning physical, cadets will receive a commission as a second lieutenant in the United States Army.

1. Second lieutenants will usually begin their Basic Officer Leaders Course within one year of commissioning. Students compete nationally for their branch based on a combined score consisting of their GPA, on-campus evaluations, and Leader Development and Assessment Course evaluation. The United States Army has 16 branches with multiple careers in each one. Students receive the branch assignments during the 400-level year.
2. Students may also compete for medical and law school appointments. Scholarships cover tuition, fees, and books for a student's undergraduate and medical school programs. Army ROTC at UAA has more information on this highly competitive program.
3. Second lieutenants incur an eight-year service commitment with the Army. Select Cadets may choose to serve part time in the Army Reserve or Army National Guard while pursuing a civilian career.

Occupational Endorsement Certificate in Automotive Engine Performance

The Occupational Endorsement Certificate in Automotive Engine Performance helps prepare students for the ASE Electrical Certification and Automotive Engine Performance certification and to diagnose and repair basic issues related to electrical and engine performance systems, within the automotive maintenance and repair industries. Credits required for this Occupational Endorsement Certificate (OEC) are applicable to the Undergraduate Certificate and Associate of Applied Science in Automotive Technology. The Automotive Engine Performance OEC is built on ASE Education Foundation standards.

Admission Requirements

- Complete the Admission Requirements for Occupational Endorsement Certificates. (p. 46)

Graduation Requirements

- Complete the General University Requirements for Occupational Endorsement Certificates. (p. 440)
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
ADT A102	Introduction to Automotive Technology	3
ADT A121	Basic Electrical Systems	3
ADT A131	Auto Electrical II	3
ADT A202	Auto Fuel and Emissions Systems	4
ADT A222	Automotive Engine Performance	4
ADT A227	Auto Electrical III	3
Total		**20**

A minimum of 20 credits is required for the certificate.

Program Student Learning Outcomes

Students graduating with an Occupational Endorsement Certificate in Automotive Engine Performance will be able to:

- Demonstrate technical knowledge and critical thinking necessary for success in the automotive maintenance and repair industry.
- Demonstrate proficiency in performing electrical and engine performance diagnostic tasks in a professional setting.
- Demonstrate effective employability skills, including oral and written communication skills, as required by accreditation standards of the ASE Education Foundation.
- Demonstrate academic proficiency necessary to pass national examinations in the electrical and engine performance areas.

Occupational Endorsement Certificate in Automotive Specialist

The Occupational Endorsement Certificate (OEC) in Automotive Specialist will help prepare students for the Automotive Service Excellence (ASE) Electrical and Brakes Certifications and to perform basic tasks related to the automotive maintenance and brake repair industries. Credits from the OEC in Automotive Specialist are applicable to the Undergraduate Certificate and Associate of Applied Science in Automotive Technology.

The OEC as an Automotive Specialist is built on ASE Education Foundation standards.

Admission Requirements

- Complete the Admission Requirements for Occupational Endorsement Certificates. (p. 46)

Graduation Requirements

- Complete the General University Requirements for Occupational Endorsement Certificates. (p. 440)
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
ADT A102	Introduction to Automotive Technology	3
ADT A121	Basic Electrical Systems	3
ADT A122	Engine Theory and Diagnosis	3
ADT A131	Auto Electrical II	3
ADT A150	Brake Systems	4
Total		**16**

A minimum of 16 credits is required for the certificate.

Program Student Learning Outcomes

Students graduating with an Occupational Endorsement Certificate as an Automotive Specialist will be able to:

- Demonstrate technical knowledge and critical thinking necessary for success in the automotive maintenance and repair industry.
- Demonstrate proficiency in performing electrical and brake system diagnostic tasks in a professional setting.
- Demonstrate effective employability skills, including oral and written communication skills, as required by accreditation standards of the ASE Education Foundation.
- Demonstrate academic proficiency necessary to pass national examinations in the electrical and brakes areas.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
ADT A102	Introduction to Automotive Technology	3
ADT A121	Basic Electrical Systems	3
ADT A131	Auto Electrical II	3
ADT A150	Brake Systems	4
	Credits	**13**
Spring		
ADT A122	Engine Theory and Diagnosis	3
	Credits	**3**
	Total Credits	**16**

Associate of Applied Science in Automotive Technology

The Associate of Applied Science (AAS) in Automotive Technology provides students with the technical education and training necessary to be successful in today's automotive industry. Students will study the various vehicle systems, including electrical and electronics and computerized engine controls, along with the numerous mechanical components that make up today's complex vehicles. The academic requirements of the program provide students with fundamental skills to enhance their written and oral communication. These courses also provide a foundation for continued studies should students decide to further their education or training.

These programs are modeled after a variety of very successful corporate training programs. Each program is four semesters long. The programs incorporate a prearranged, supervised, evaluated practicum in each of the first three semesters, with the possibility of an additional practicum during the last semester. Many students also choose to complete a summer practicum while enrolled in the program. In addition, there is a registered apprenticeship opportunity available for select students.

Students experience training on a wide variety of modern domestic and imported vehicles, light trucks, and vans. Laboratory and shop

objectives are met on training vehicles, components and live shop projects. Automotive Technology graduates have been placed in dealerships, independent shops, service stations, mass merchandisers, aviation ground support and fleet repair facilities. Employers require a current vehicle operator's license and a good driving record. Prospective students should have physical capabilities required of the trade which typically include standing long hours; lifting heavy objects; contacting hazardous materials; operating machinery; exposure to noise, heat, cold, vapors, and other workplace hazards; manipulating tools; and working with small parts in confined and awkward positions.

Technicians must be able to distinguish colors in minimal light, transcribe numbers up to 17 digits, and work up to 10 hours a day, six days per week. Equal opportunities are available for men and women.

The program is offered with two options: General Automotive or the General Motors Automotive Service Education Program (GMASEP). Each option has different admissions requirements based on the policies of the program sponsors.

The AAS in Automotive Technology prepares students to be proficient in diagnosing and repairing various vehicle systems, including electrical and electronics, and computerized engine controls, along with the numerous mechanical components that make up today's complex vehicles.

The AAS in Automotive Technology is accredited by the Automotive Service Excellence (ASE) Educational Foundation and recognized as a Center of Excellence by the National Coalition of Certification Centers (NC3).

The AAS in Automotive Technology constitutes the first two years of the Bachelor of Science (BS) in Applied Technologies Leadership.

Admission Requirements

- Complete the Admission Requirements for Associate Degrees. (p. 46)

Special Considerations

- Most employers require technicians to be drug-free, physically fit, have a current vehicle operator's license and a good driving record.
- Most employers require technicians to have a minimum set of tools. A tool list is available on the Automotive Technology website.
- Admission to GMASEP is only offered during odd-numbered years.

Graduation Requirements

- Complete the General University Requirements for Associate Degrees (p. 441).
- Complete the General Education Requirements for Associate of Applied Science Degrees (p. 441).
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
ADT A102	Introduction to Automotive Technology	3
ADT A121	Basic Electrical Systems	3
ADT A122	Engine Theory and Diagnosis	3
ADT A131	Auto Electrical II	3
ADT A140	Automotive Engine Repair	3
ADT A150	Brake Systems	4
ADT A160	Manual Drive Trains and Axles	4
ADT A162	Suspension and Alignment	4
ADT A195	Automotive Practicum I [1]	6
or ADT A240	Electric and Hybrid Vehicle II	
ADT A222	Automotive Engine Performance	4
ADT A225	Mobile Heating, Ventilation and Air Conditioning Systems	3
ADT A227	Auto Electrical III	3
ADT A230	Electric and Hybrid Vehicle I	3
ADT A260	Electronic and Automatic Transmissions	3
Total		**49**

[1] *Students may complete 6 credits of ADT A195 or 3 credits of ADT A195 and 3 credits of ADT A240.*

A minimum of 61 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with an Associate of Applied Science in Automotive Technology will be able to:

- Demonstrate academic proficiency necessary to pass national examinations within the domain.
- Demonstrate proficiency in performing occupationally related tasks in a professional setting.
- Integrate knowledge from diverse areas to develop effective diagnostic and repair strategies involving complex systems.
- Request, collect, summarize, evaluate, and apply oral and written information gathered from technical (e.g. schematics, technical bulletins, and service information) and nontechnical (e.g. customer oral and written reports) sources regarding symptoms and potential diagnostic and repair strategies for complex systems used in automobiles.
- Apply knowledge gained from previous education and experience to aid in diagnosis and repair for the immediate situation.
- Demonstrate effective employability skills, including oral and written communication skills, as required by accreditation standards for the ASE Education Foundation.
- Demonstrate technical knowledge and critical thinking necessary for success in the automotive maintenance and repair industry.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors

and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
ADT A102	Introduction to Automotive Technology	3
ADT A121	Basic Electrical Systems	3
ADT A131	Auto Electrical II	3
ADT A150	Brake Systems	4
WRTG A111	Writing Across Contexts	3
	Credits	**16**
Spring		
ADT A122	Engine Theory and Diagnosis	3
ADT A160	Manual Drive Trains and Axles	4
ADT A162	Suspension and Alignment	4
WRTG A212	Writing and the Professions	3
MATH A104	Technical Mathematics	3
	Credits	**17**
Second Year		
Fall		
ADT A140	Automotive Engine Repair	3
ADT A195	Automotive Practicum I	3
ADT A225	Mobile Heating, Ventilation and Air Conditioning Systems	3
ADT A227	Auto Electrical III	3
COMM A111 or COMM A235	Fundamentals of Oral Communication or Small Group Communication	3
	Credits	**15**
Spring		
ADT A195 or ADT A240	Automotive Practicum I or Electric and Hybrid Vehicle II	3
ADT A222	Automotive Engine Performance	4
ADT A230	Electric and Hybrid Vehicle I	3
ADT A260	Electronic and Automatic Transmissions [1]	3
	Credits	**13**
	Total Credits	**61**

[1] *Students may complete 6 credits of ADT A195 or 3 credits of ADT A195 and 3 credits of ADT A240.*

Undergraduate Certificate in Automotive Technology

The Undergraduate Certificate in Automotive Technology provides students with the technical education and training necessary to be successful in today's automotive industry. Students will study the various vehicle systems, including electrical and electronics, computerized engine controls, and the numerous mechanical components that make up today's complex vehicles.

Admission Requirements

- Complete the Admission Requirements for Undergraduate Certificate Programs (p. 46).

Advising

Students should consult the ADT faculty for assistance in curriculum planning toward the undergraduate certificate.

Computer Competency Requirement

The Automotive Technology certificate requires demonstrated computer competency. Computer competency may be demonstrated in any of the following ways:

- A 3-credit course in a computer language or an introductory course in data processing or microcomputers.
- Work-related experience verifying computer competency as approved by the faculty advisor.
- Self-initiated computer competency as approved by the faculty advisor.

Graduation Requirements

- Complete the General University Requirements for Undergraduate Certificates (p. 441).
- Complete the following major requirements:

Code	Title	Credits
First Semester		
ADT A102	Introduction to Automotive Technology	3
ADT A121	Basic Electrical Systems	3
ADT A131	Auto Electrical II	3
ADT A150	Brake Systems	4
ADT A195	Automotive Practicum I	2
Second Semester		
ADT A122	Engine Theory and Diagnosis	3
ADT A160	Manual Drive Trains and Axles	4
ADT A162	Suspension and Alignment	4
ADT A195	Automotive Practicum I	2
Third Semester		
ADT A140	Automotive Engine Repair	3
ADT A225	Mobile Heating, Ventilation and Air Conditioning Systems	3
ADT A227	Auto Electrical III	3
ADT A195	Automotive Practicum I	2
Fourth Semester		
ADT A202	Auto Fuel and Emissions Systems	4
ADT A222	Automotive Engine Performance	4
ADT A260	Electronic and Automatic Transmissions	3
or ADT A295	Automotive Practicum II	
Total		**50**

A total of 50 credits is required for the certificate.

Program Student Learning Outcomes

At the completion of this undergraduate certificate program, students are able to:

- Demonstrate technical knowledge and skills necessary for success in the automotive maintenance and repair industry.
- Demonstrate academic proficiency necessary to pass national examinations.
- Demonstrate proficiency in performing occupationally related tasks in a professional setting.
- Integrate knowledge from diverse areas to develop effective diagnostic and repair strategies involving complex systems.
- Demonstrate effective oral and written communication skills necessary for success in the workplace.

Associate of Applied Science in Aviation Maintenance Technology

The Associate of Applied Science (AAS) in Aviation Maintenance Technology (AMT) is designed to prepare graduates for employment as maintenance technicians in general aviation, corporate aviation, airlines or aerospace manufacturers. In addition to traditional aircraft maintenance courses, the curriculum emphasizes modern aircraft systems.

The AAS in Aviation Maintenance Technology prepares students for advancement beyond basic certification as maintenance technicians in general aviation, corporate aviation, airlines or aerospace manufacturing. The curriculum emphasizes critical thinking, problem solving, current aircraft technology and systems, as well as legacy aircraft.

The AAS in Aviation Maintenance Technology constitutes the first two years of the Bachelor of Science (BS) in Applied Technologies Leadership.

Admission Requirements

- Complete the Admission Requirements for Associate Degrees. (p. 46)

Special Considerations

- Due to specific Federal Aviation Administration (FAA) requirements, the AAS AMT may not meet FAA certification eligibility until graduation. All students must meet with an Aviation Technology Division (ATD) academic advisor prior to beginning any AMT program of study and are to meet each semester for the purpose of reviewing their academic progress and planning future courses.
- Students are required to have their own basic hand tools for work in AMT lab classes.

Graduation Requirements

- Complete the General University Requirements for Associate Degrees (p. 441).
- Complete the General Education Requirements for Associate of Applied Science Degrees (p. 441).
- Complete the following major requirements:

Code	Title	Credits
Core Courses		
AMT A170	Aircraft Ground Operations and Safety	1
AMT A171	Basic Aerodynamics	2
AMT A172	Aircraft Publications, Regulations, and Records	2
AMT A174 & A174L	Fundamentals of Aircraft Electronics and Fundamentals of Aircraft Electronics Lab	4

AMT A175	Drawing and Precision Measurement	1
AMT A176	Aircraft Materials and Processes I	2
AMT A181 & A181L	Aircraft Fuel Systems and Aircraft Fuel Systems Lab	4
AMT A186	Aircraft Non-Destructive Inspection Methods	2
AMT A274 & A274L	Aircraft Electronic Systems and Instruments and Aircraft Electronic Systems and Instruments Lab	5
Complete one of the following concentration areas:		**18-19**
Airframe Concentration		
AMT A185 & A185L	Aircraft Sheetmetal Structures and Aircraft Sheetmetal Structures Lab	
AMT A273 & A273L	Aircraft Fluid Power Systems and Aircraft Fluid Power Systems Lab	
AMT A283 & A283L	Aircraft Auxiliary and Avionics Systems and Aircraft Auxiliary and Avionics Systems Lab	
AMT A285 & A285L	Aircraft Bonded Structures and Aircraft Bonded Structures Lab	
AMT A286	Aircraft Materials and Processes II	
AMT A288 & A288L	Airframe Assembly and Inspections and Airframe Assembly and Inspections Lab	
Powerplant Concentration		
AMT A177	Aircraft Powerplant Theory	
AMT A184 & A184L	Aircraft Electrical Machinery and Aircraft Electrical Machinery Lab	
AMT A187 & A187L	Aircraft Powerplant Repair and Overhaul and Aircraft Reciprocating Engine Overhaul Lab	
AMT A279L	Aircraft Turbine Engine Repair and Overhaul Lab	
AMT A282	Aircraft Propeller Systems	
AMT A287 & A287L	Aircraft Powerplant Installation and Operation and Aircraft Powerplant Installation and Operation Lab	
Total		**41-42**

A minimum of 60 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with an Associate of Applied Science in Aviation Maintenance Technology will be able to:

- Demonstrate proficiency in general aircraft maintenance skills.
- Demonstrate proficiency in emphasis area skills: airframe or powerplant.
- Demonstrate knowledge of aircraft engines, structures, and systems, as well as appropriate FAA regulations.
- Demonstrate knowledge of industry information: current status, segments and opportunities.
- Demonstrate critical thinking, problem solving, and communication skills.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

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- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

Sample Plan - Airframe Concentration

First Year		
Spring		**Credits**
AMT A170	Aircraft Ground Operations and Safety [1]	1
AMT A171	Basic Aerodynamics [1]	2
AMT A172	Aircraft Publications, Regulations, and Records [1]	2
AMT A174 & A174L	Fundamentals of Aircraft Electronics and Fundamentals of Aircraft Electronics Lab [1]	4
AMT A175	Drawing and Precision Measurement [1]	1
AMT A176	Aircraft Materials and Processes I [1]	2
WRTG A111	Writing Across Contexts	3
	Credits	**15**
Second Year		
Fall		
AMT A273 & A273L	Aircraft Fluid Power Systems and Aircraft Fluid Power Systems Lab	3
AMT A274 & A274L	Aircraft Electronic Systems and Instruments and Aircraft Electronic Systems and Instruments Lab	5
MATH A104 or MATH A105	Technical Mathematics or Intermediate Algebra	3-4
WRTG A212	Writing and the Professions	3
	Credits	**14-15**
Spring		
AMT A181 & A181L	Aircraft Fuel Systems and Aircraft Fuel Systems Lab	4
AMT A185 & A185L	Aircraft Sheetmetal Structures and Aircraft Sheetmetal Structures Lab	4
AMT A186	Aircraft Non-Destructive Inspection Methods	2
GER Oral Communication Skills		3
	Credits	**13**
Third Year		
Fall		
AMT A283 & A283L	Aircraft Auxiliary and Avionics Systems and Aircraft Auxiliary and Avionics Systems Lab	3
AMT A285 & A285L	Aircraft Bonded Structures and Aircraft Bonded Structures Lab	3
AMT A286	Aircraft Materials and Processes II	1
AMT A288 & A288L	Airframe Assembly and Inspections and Airframe Assembly and Inspections Lab	5
Electives		6-7
	Credits	**18-19**
	Total Credits	**60-62**

[1] *Spring start due to course offerings and sequencing.*

Sample Plan - Powerplant Concentration

First Year		
Fall		**Credits**
AMT A170	Aircraft Ground Operations and Safety [2]	1
AMT A171	Basic Aerodynamics [2]	2
AMT A172	Aircraft Publications, Regulations, and Records [2]	2
AMT A174 & A174L	Fundamentals of Aircraft Electronics and Fundamentals of Aircraft Electronics Lab [2]	4
AMT A175	Drawing and Precision Measurement [2]	1
AMT A176	Aircraft Materials and Processes I [2]	2
AMT A177	Aircraft Powerplant Theory [2]	3
	Credits	**15**
Spring		
AMT A181 & A181L	Aircraft Fuel Systems and Aircraft Fuel Systems Lab	4
AMT A186	Aircraft Non-Destructive Inspection Methods	2
AMT A187 & A187L	Aircraft Powerplant Repair and Overhaul and Aircraft Reciprocating Engine Overhaul Lab	5
WRTG A111	Writing Across Contexts	3
	Credits	**14**
Second Year		
Fall		
AMT A184 & A184L	Aircraft Electrical Machinery and Aircraft Electrical Machinery Lab	3
AMT A274 & A274L	Aircraft Electronic Systems and Instruments and Aircraft Electronic Systems and Instruments Lab	5
AMT A279L	Aircraft Turbine Engine Repair and Overhaul Lab	1
MATH A104 or MATH A105	Technical Mathematics or Intermediate Algebra	3-4
WRTG A212	Writing and the Professions	3
	Credits	**15-16**
Spring		
AMT A282	Aircraft Propeller Systems	1
AMT A287 & A287L	Aircraft Powerplant Installation and Operation and Aircraft Powerplant Installation and Operation Lab	5

Electives	6-7
Credits	**12-13**
Total Credits	**56-58**

[2] *Fall start due to course offerings and sequencing.*

Undergraduate Certificate in Aviation Maintenance Technology, Airframe

The Undergraduate Certificate in Aviation Maintenance Technology (AMT), Airframe, is designed to prepare graduates for employment as maintenance technicians in general aviation, corporate aviation, airlines or aerospace manufacturers. In addition to traditional aircraft maintenance courses, the curriculum emphasizes modern aircraft systems.

Admission Requirements

- Complete the Admission Requirements for Undergraduate Certificate Programs (p. 46).
- Apply for admission to the AMT Airframe program by contacting the Aviation Technology Division (ATD) at 2811 Merrill Field Drive in Anchorage, calling (907) 786-7200 or visiting www.uaa.alaska.edu/aviation (http://www.uaa.alaska.edu/aviation/).
- Present evidence of a proficiency in mathematics at or exceeding the MATH A104 level. An appropriate score on a math placement test may be used.
- Demonstrate English language proficiency through placement into WRTG A110 (or higher), ACT English scores, SAT Critical Reading scores or an appropriate score on the UAA-approved English placement exam. Generally, applicants eligible for entry into WRTG A110 have sufficient proficiency for entry into the AMT program.

Graduation Requirements

- Complete the General University Requirements for Undergraduate Certificates (p. 441).
- Complete the following major requirements:

Code	Title	Credits
AMT A170	Aircraft Ground Operations and Safety	1
AMT A171	Basic Aerodynamics	2
AMT A172	Aircraft Publications, Regulations, and Records	2
AMT A174 & A174L	Fundamentals of Aircraft Electronics and Fundamentals of Aircraft Electronics Lab	4
AMT A175	Drawing and Precision Measurement	1
AMT A176	Aircraft Materials and Processes I	2
AMT A181 & A181L	Aircraft Fuel Systems and Aircraft Fuel Systems Lab	4
AMT A185 & A185L	Aircraft Sheetmetal Structures and Aircraft Sheetmetal Structures Lab	4
AMT A186	Aircraft Non-Destructive Inspection Methods	2
AMT A273 & A273L	Aircraft Fluid Power Systems and Aircraft Fluid Power Systems Lab	3
AMT A274 & A274L	Aircraft Electronic Systems and Instruments and Aircraft Electronic Systems and Instruments Lab	5
AMT A283 & A283L	Aircraft Auxiliary and Avionics Systems and Aircraft Auxiliary and Avionics Systems Lab	3
AMT A285 & A285L	Aircraft Bonded Structures and Aircraft Bonded Structures Lab	3
AMT A286	Aircraft Materials and Processes II	1
AMT A288 & A288L	Airframe Assembly and Inspections and Airframe Assembly and Inspections Lab	5
Total		**42**

A minimum of 42 credits is required for the certificate.

Program Student Learning Outcomes

Students graduating with an Undergraduate Certificate in Aviation Maintenance Technology, Airframe will be able to:

- Demonstrate proficiency in general aircraft maintenance skills.
- Demonstrate proficiency in airframe maintenance skills.
- Demonstrate knowledge of aircraft structures and systems, and appropriate FAA regulations.
- Demonstrate knowledge of industry information: current status, segments and opportunities.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
Sample Plan begins First Year Spring semester		0
	Credits	**0**
Spring		
AMT A170	Aircraft Ground Operations and Safety	1
AMT A171	Basic Aerodynamics	2
AMT A172	Aircraft Publications, Regulations, and Records	2
AMT A174 & A174L	Fundamentals of Aircraft Electronics and Fundamentals of Aircraft Electronics Lab	4
AMT A175	Drawing and Precision Measurement	1
AMT A176	Aircraft Materials and Processes I	2
	Credits	**12**
Second Year		
Fall		
AMT A273 & A273L	Aircraft Fluid Power Systems and Aircraft Fluid Power Systems Lab	3
AMT A274 & A274L	Aircraft Electronic Systems and Instruments and Aircraft Electronic Systems and Instruments Lab	5
	Credits	**8**
Spring		
AMT A181 & A181L	Aircraft Fuel Systems and Aircraft Fuel Systems Lab	4
AMT A185 & A185L	Aircraft Sheetmetal Structures and Aircraft Sheetmetal Structures Lab	4
AMT A186	Aircraft Non-Destructive Inspection Methods	2
	Credits	**10**
Third Year		
Fall		
AMT A283 & A283L	Aircraft Auxiliary and Avionics Systems and Aircraft Auxiliary and Avionics Systems Lab	3
AMT A285 & A285L	Aircraft Bonded Structures and Aircraft Bonded Structures Lab	3
AMT A286	Aircraft Materials and Processes II	1
AMT A288 & A288L	Airframe Assembly and Inspections and Airframe Assembly and Inspections Lab	5
	Credits	**12**
	Total Credits	**42**

Undergraduate Certificate in Aviation Maintenance Technology, Powerplant

The Undergraduate Certificate in Aviation Maintenance Technology (AMT), Powerplant, is designed to prepare graduates for employment as maintenance technicians in general aviation, corporate aviation, airlines or aerospace manufacturers. In addition to traditional aircraft maintenance courses, the curriculum emphasizes modern aircraft systems.

Admission Requirements

- Complete the Admission Requirements for Undergraduate Certificate Programs (p. 46).
- Apply for admission to the AMT Powerplant program by contacting the Aviation Technology Division (ATD) at 2811 Merrill Field Drive in Anchorage, calling (907) 786-7200 or visiting www.uaa.alaska.edu/aviation (http://www.uaa.alaska.edu/aviation/).
- Present evidence of proficiency in mathematics at or exceeding the MATH A104 level. An appropriate score on a math placement test may be used.
- Demonstrate English language proficiency through placement into WRTG A110 or a higher level with an appropriate level on ACT English scores, SAT Verbal scores, or an English placement exam. Generally, applicants eligible for entry into WRTG A110 level have sufficient proficiency for entry into the AMT programs.

Graduation Requirements

- Complete the General University Requirements for Undergraduate Certificates (p. 441).
- Complete the following major requirements:

Code	Title	Credits
AMT A170	Aircraft Ground Operations and Safety	1
AMT A171	Basic Aerodynamics	2
AMT A172	Aircraft Publications, Regulations, and Records	2
AMT A174 & A174L	Fundamentals of Aircraft Electronics and Fundamentals of Aircraft Electronics Lab	4
AMT A175	Drawing and Precision Measurement	1
AMT A176	Aircraft Materials and Processes I	2
AMT A177	Aircraft Powerplant Theory	3
AMT A181 & A181L	Aircraft Fuel Systems and Aircraft Fuel Systems Lab	4
AMT A184 & A184L	Aircraft Electrical Machinery and Aircraft Electrical Machinery Lab	3
AMT A186	Aircraft Non-Destructive Inspection Methods	2
AMT A187 & A187L	Aircraft Powerplant Repair and Overhaul and Aircraft Reciprocating Engine Overhaul Lab	5
AMT A274 & A274L	Aircraft Electronic Systems and Instruments and Aircraft Electronic Systems and Instruments Lab	5
AMT A279L	Aircraft Turbine Engine Repair and Overhaul Lab	1
AMT A282	Aircraft Propeller Systems	1
AMT A287 & A287L	Aircraft Powerplant Installation and Operation and Aircraft Powerplant Installation and Operation Lab	5
Total		**41**

A minimum of 41 credits is required for the certificate.

Program Student Learning Outcomes

Students graduating with an Undergraduate Certificate in Aviation Maintenance Technology, Powerplant will be able to:

- Demonstrate proficiency in general aircraft maintenance skills.
- Demonstrate proficiency in the required powerplant maintenance skills.
- Demonstrate knowledge of aircraft powerplants, systems and appropriate FAA regulations.
- Demonstrate knowledge of industry information: current status, trends, segments and opportunities.

Bachelor of Science in Aviation Technology

The Bachelor of Science in Aviation Technology (BSAT) prepares individuals for professional positions within the aviation industry. Related career opportunities are found with airlines, airports, general aviation, government organizations, education and the aerospace industry.

Within the degree there are three emphasis areas: aviation management, professional piloting, and aeronautical studies. Each emphasis has discrete program description and outcomes. The specific interests and career goals of each student determine the emphasis area to pursue. The degree includes university General Education Requirements (GERs), a common set of core courses and courses relative to each individual emphasis.

Aviation Management Emphasis

The BSAT with the aviation management emphasis is designed to prepare graduates for management positions in all aspects of the aviation industry. The BSAT provides students not only with the organizational, human relations, and managerial skills required in aviation management, but also with the appropriate technical background.

Professional Piloting Emphasis

Professional pilots need knowledge of aerodynamics, aircraft engine and system operation, aircraft operating limitations and performance, weather and atmospheric processes, as well as navigation and communication methods. This degree program prepares graduates for careers in professional flying and management. The special considerations and academic requirements contained in the Associate of Applied Science in Professional Piloting (p. 723) also apply to this emphasis area. The FAA has authorized UAA to certify its professional piloting graduates as eligible for an Airline Transport Pilot Certificate with reduced aeronautical experience.

Aeronautical Studies

The BSAT with the aeronautical studies emphasis is designed to help students with some college education complete a bachelor degree and transition into the aviation industry. This degree is designed to have maximum flexibility in course electives.

Admission Requirements

- Complete the Admission Requirements for Baccalaureate Degrees. (p. 46)
- Complete any additional admission requirements for the emphasis areas of aviation management and professional piloting described below.
- Complete any certification requirements established by applicable government agencies of applicable emphasis.

Advising

It is strongly recommended that all students meet with an Aviation Technology Division (ATD) academic advisor each semester to review their academic progress and plan future courses. This is especially true with piloting students, as a number of their courses have Federal Aviation Administration (FAA) requirements as well.

Special Considerations

Once enrolled in any flight training course (courses where the student is receiving flight training) at UAA, students are required to complete the course requirements within 12 months from the date of registration. Failure to do so will be considered unsatisfactory progress and will result in a failing (F) grade within that registered flight course. If a student receives a failing grade in a flight training course, the course may be repeated.

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (p. 442).
- Complete the General Education Requirements for Baccalaureate Degrees (p. 443).
- Complete requirements from one of the following emphases.
- Complete the following major requirements with a minimum grade of C in all aviation technology courses:

Code	Title	Credits
Core Courses		
AMT A171	Basic Aerodynamics	2
ATA A102	Introduction to Aviation Technology	3
ATA A133	Aviation Law and Regulations	3
ATA A134	Principles of Aviation Administration	3
ATA A233	Aviation Safety	3
ATA A331	Human Factors in Aviation	3
ATA A337	Airline Operations	3
ATA A425	Civil Aviation Security	3
ATA A492	Air Transportation System Seminar	3
ATC A143	ATC Regulations	3
or ATC A147	Air Traffic Communications	
ATP A100	Private Pilot Ground School	3
ATP A235	Elements of Weather	3
ECON A102	Principles of Macroeconomics	3
PHIL A101	Introduction to Logic	3
or PHIL A201	Introduction to Philosophy	
or PHIL A301	Ethics	
or PHIL A305	Professional Ethics	
PHYS A123	College Physics I	3
PHYS A123L	College Physics I Laboratory	1
WRTG A212	Writing and the Professions	3
Total		**48**

Select one of the following emphasis areas and complete the listed required courses.

Aviation Management Emphasis

The following applies to those students desiring to pursue an aviation management emphasis:

1. Completion of prerequisite for or test placement into MATH A105 or higher and WRTG A111 or higher. For testing schedule, contact the Testing Center at (907) 786-4500.

Code	Title	Credits
ACCT A201	Principles of Financial Accounting	3
ACCT A202	Principles of Managerial Accounting	3
ATA A335	Airport Operations	3
ATA A336	Air Service Operations	3
or ATC A440	Facility Operation and Administration	
BA A241	Business Law I	3
BA A300	Organizational Theory and Behavior	3
BA A361	Human Resource Management	3
BA A388	Globalization and Business Environment	3
BA A461	Negotiation and Conflict Management	3
ECON A101	Principles of Microeconomics	3
STAT A200	Elementary Statistics	3
or any class for which STAT A200 is a prerequisite.		
Choose a minimum of 18 credits of advisor-approved electives, 12 of which must be upper-division. The following are recommended elective support courses:		18
ATA A490	Advanced Topics in Aviation Technology	
ATC A325	Tools for Weather Briefing	
BA A280	Managerial Communications	
BA A347	International Marketing	
BA A376	Management Information Systems	
BA A381	Consumer Behavior and Relationship Management	
BA A460	Marketing Management	
PER A100	Fitness for Life *	
PER elective *		
PSY A380	Psychology of Stress and Coping	
Total		**51**

* *Maximum of 2 PER elective credits allowed.*

Professional Piloting Emphasis

The following applies to those students desiring to pursue a professional piloting emphasis:

1. Flight training costs are not included in university tuition and fees. Students must meet with the aviation academic advisor to obtain department approval to register for all flight courses. Flight training costs are based on hourly rates established for each aircraft type flown. Students will be provided with current hourly flight costs and program cost estimates when they meet with the department's academic advisor.
2. Students must pass an Federal Aviation Administration (FAA) Class II medical examination before beginning any flight training.
3. U.S. citizens must present verification of U.S. citizenship before beginning any flight or airplane simulator training. The following three methods are acceptable: an unexpired U.S. passport, an original or raised seal official copy of birth certificate, or an original or raised seal official copy of Certificate of Naturalization. Non-U.S. citizens must register and receive approval from the Transportation Security Agency before beginning any flight or simulator training. Please contact the ATD Office for information.
4. Once formally admitted to the Bachelor of Science in Aviation Technology or registered for aviation classes at UAA, all subsequent required flight training must be completed in residence at UAA. Enrolled students who receive flight training outside UAA under specific curricula will not receive credit for the corresponding UAA courses.
5. All students are required to complete a minimum of the FAA Instrument Airplane Pilot rating, the FAA Commercial Airplane Single-engine Land Pilot certificate, and the FAA Multi-engine Land Rating while in residence at UAA.
6. Military pilots may petition to have appropriate curriculum requirements awarded based on FAA pilot certificates held on a case-by-case basis.
7. Students in the professional piloting emphasis are expected to have an additional focus of study outside of aviation. This focus will include at least three courses in the outside emphasis beyond the General Education Requirements (GERs). A minor is encouraged but not required.
8. Completion of prerequisite for or test placement into MATH A105 or higher and WRTG A111 or higher. For testing schedule, contact Testing Center at (907) 786-4500.

Code	Title	Credits
ATA A415	Crew Resource Management	3
ATC A325	Tools for Weather Briefing	3
ATP A101	Pre-Professional Flying *	2
ATP A116	Instrument Ground School	3
ATP A126	Instrument Flying *	2
ATP A200	Commercial Ground School	3
ATP A218	Commercial Flying I *	1.5
ATP A219	Commercial Flying II *	1.5
ATP A220	Commercial Flying III *	2
ATP A305	Airplane Multiengine Land Rating *	2
ATP A320	Flight Dynamics	3
ATP A332	Transport Aircraft Systems	3
MATH A152	Trigonometry	3
or any class for which MATH A152 is a prerequisite		
Choose a minimum of 19 credits from the list below, 10 of which must be upper-division.		19
ATA A134	Principles of Aviation Administration	
ATA A335	Airport Operations	
ATA A336	Air Service Operations	
ATA A490	Advanced Topics in Aviation Technology	
ATP A104	Flying Alaska Bush	
ATP A300	CFI Ground School	
ATP A301	CFI Flying *	
ATP A405	Additional CFI Rating *	
PER A100	Fitness for Life	
PER elective (must be combined with PER A100)		
PSY A380	Psychology of Stress and Coping	
Total		**51**

* *All flying courses require special documentation and department approval before registration.*

Aeronautical Studies Emphasis

The following applies to those students desiring to pursue an aeronautical studies emphasis:

This curriculum is designed as a flexible option for those with previous college experience and looking to move into the aviation industry.

Code	Title	Credits
ATP A433	Aerospace Physiology	3
ATA A431	Aircraft Accident Investigation	3
BA A166	Entrepreneurship and Small Business Management	3
ENGL A312	Technical Writing and Design	3
MATH A152	Trigonometry	3
or STAT A200	Elementary Statistics	
or any class for which MATH A152 or STAT A200 is a prerequisite		
36 credits of advisor-approved electives		36
Total		**51**

A minimum of 120 credits is required for the degree, 39 of which must be upper-division. All elective courses must be approved by the academic advisor.

Program Student Learning Outcomes

Aviation Management Emphasis

At the completion of this program, students will be able to:

- Demonstrate technical knowledge of aircraft operating limitations and performance.
- Demonstrate knowledge of aviation law and regulations, and of the legal issues affecting the aviation industry.
- Demonstrate knowledge of the issues affecting aviation safety and safety management.
- Demonstrate knowledge of basic business management skills and supervisory techniques.
- Demonstrate a broad knowledge of the aviation industry.
- Demonstrate a broad knowledge of aviation management functions and techniques.

Professional Piloting Emphasis

At the completion of this program, students will be able to:

- Demonstrate proficiency in instrument pilot, commercial pilot knowledge, and flight skills.
- Demonstrate knowledge of aviation law and regulations, and the legal issues affecting the aviation industry.
- Demonstrate knowledge of the issues affecting aviation safety and safety management.
- Demonstrate knowledge of aviation weather and of aviation weather services.
- Demonstrate a broad knowledge of the aviation industry.

Aeronautical Studies Emphasis

At the completion of this program, students will be able to:

- Demonstrate technical knowledge of aircraft operating limitations and performance.
- Demonstrate knowledge of aviation law and regulations, and the legal issues affecting the aviation industry.
- Demonstrate knowledge of the issues affecting aviation safety and safety management.
- Demonstrate a broad knowledge of the aviation industry.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

Sample Plan - Aeronautical Studies Emphasis

First Year		
Fall		**Credits**
ATA A102	Introduction to Aviation Technology	3
ATA A134	Principles of Aviation Administration	3
ATP A100	Private Pilot Ground School	3
MATH A152	Trigonometry	3
WRTG A111	Writing Across Contexts	3
	Credits	**15**
Spring		
ATA A133	Aviation Law and Regulations	3
ATA A233	Aviation Safety	3
ATC A143 or ATC A147	ATC Regulations or Air Traffic Communications	3
ATP A235	Elements of Weather	3
WRTG A212	Writing and the Professions	3
	Credits	**15**
Second Year		
Fall		
ATA A331	Human Factors in Aviation	3
PHIL A301 or PHIL A305	Ethics or Professional Ethics	3
PHYS A123 & A123L	College Physics I and College Physics I Laboratory	4
GER Oral Communication Skills		3
Program Elective		3
	Credits	**16**

Spring		
ATP A433	Aerospace Physiology	3
ECON A102	Principles of Macroeconomics	3
ENGL A312	Technical Writing and Design	3
GER Fine Arts		3
Program Elective		3
	Credits	**15**
Third Year		
Fall		
AMT A171	Basic Aerodynamics	2
ATA A337	Airline Operations	3
GER Humanities		3
GER Natural Sciences		3
Upper Division Program Elective		3
	Credits	**14**
Spring		
BA A166	Entrepreneurship and Small Business Management	3
GER Social Sciences		3
Program Elective		3
Program Elective		3
Upper Division Program Elective		3
	Credits	**15**
Fourth Year		
Fall		
ATA A425	Civil Aviation Security	3
ATA A431	Aircraft Accident Investigation	3
Program Elective		3
Upper Division Program Elective		3
Upper Division Program Elective		3
	Credits	**15**
Spring		
ATA A492	Air Transportation System Seminar	3
GER Alaska Native-Themed		3
Program Elective		3
Upper Division Program Elective		3
Upper Division Program Elective		3
	Credits	**15**
	Total Credits	**120**

Sample Plan - Aviation Management Emphasis

First Year		
Fall		**Credits**
ATA A102	Introduction to Aviation Technology	3
ATA A134	Principles of Aviation Administration	3
ATP A100	Private Pilot Ground School	3
STAT A200	Elementary Statistics	3
WRTG A111	Writing Across Contexts	3
	Credits	**15**
Spring		
ATA A133	Aviation Law and Regulations	3
ATA A233	Aviation Safety	3
ATC A143 or ATC A147	ATC Regulations or Air Traffic Communications	3
ATP A235	Elements of Weather	3
WRTG A212	Writing and the Professions	3
	Credits	**15**
Second Year		
Fall		
ATA A331	Human Factors in Aviation	3
BA A300	Organizational Theory and Behavior	3
PHIL A301 or PHIL A305	Ethics or Professional Ethics	3
PHYS A123 & A123L	College Physics I and College Physics I Laboratory	4
GER Oral Communication Skills		3
	Credits	**16**
Spring		
ACCT A201	Principles of Financial Accounting	3
BA A361	Human Resource Management	3
ECON A102	Principles of Macroeconomics	3
GER Fine Arts		3
GER Humanities		3
	Credits	**15**
Third Year		
Fall		
ACCT A202	Principles of Managerial Accounting	3
AMT A171	Basic Aerodynamics	2
ATA A336 or ATC A440	Air Service Operations or Facility Operation and Administration	3
ATA A337	Airline Operations	3
GER Natural Sciences		3
	Credits	**14**
Spring		
ATA A335	Airport Operations	3
BA A241	Business Law I	3
BA A388	Globalization and Business Environment	3
BA A461	Negotiation and Conflict Management	3
ECON A101	Principles of Microeconomics	3
	Credits	**15**
Fourth Year		
Fall		
ATA A425	Civil Aviation Security	3
GER Alaska Native-Themed		3
Upper Division Program Elective		3

Upper Division Program Elective		3
Upper Division Program Elective		3
	Credits	**15**
Spring		
ATA A492	Air Transportation System Seminar	3
Program Elective		3
Program Elective		3
Program Elective		3
Upper Division Program Elective		3
	Credits	**15**
	Total Credits	**120**

Sample Plan - Professional Piloting Emphasis

First Year		
Fall		**Credits**
ATA A102	Introduction to Aviation Technology	3
ATA A134	Principles of Aviation Administration	3
ATP A100	Private Pilot Ground School	3
MATH A152	Trigonometry	3
WRTG A111	Writing Across Contexts	3
	Credits	**15**
Spring		
ATA A133	Aviation Law and Regulations	3
ATA A233	Aviation Safety	3
ATP A101	Pre-Professional Flying	2
PHIL A101 or PHIL A201 or PHIL A301 or PHIL A305	Introduction to Logic or Introduction to Philosophy or Ethics or Professional Ethics	3
WRTG A212	Writing and the Professions	3
GER Oral Communication Skills		3
	Credits	**17**
Second Year		
Fall		
ATP A116	Instrument Ground School	3
ATP A126	Instrument Flying	2
ATP A235	Elements of Weather	3
PHYS A123 & A123L	College Physics I and College Physics I Laboratory	4
GER Humanities		3
	Credits	**15**
Spring		
AMT A171	Basic Aerodynamics	2
ATC A325	Tools for Weather Briefing	3
ATP A200	Commercial Ground School	3
ATP A218	Commercial Flying I	1.5
GER Natural Sciences		3
GER Fine Arts		3
	Credits	**15.5**
Summer		
ATP A219	Commercial Flying II [1]	1.5
ATP A220	Commercial Flying III [1]	2
	Credits	**3.5**
Third Year		
Fall		
ATA A331	Human Factors in Aviation	3
ATA A337	Airline Operations	3
ATC A143 or ATC A147	ATC Regulations or Air Traffic Communications	3
ATP A300	CFI Ground School	3
ATP A301	CFI Flying	2
	Credits	**14**
Spring		
ATP A305	Airplane Multiengine Land Rating	2
ATP A320	Flight Dynamics	3
ATP A332	Transport Aircraft Systems	3
ECON A102	Principles of Macroeconomics	3
GER Social Sciences		3
	Credits	**14**
Fourth Year		
Fall		
ATA A425	Civil Aviation Security	3
ATC A251	Flight Dispatcher Overview	3
GER Alaska Native-Themed		3
Program Elective [2]		3
	Credits	**12**
Spring		
ATA A415	Crew Resource Management	3
ATA A492	Air Transportation System Seminar	3
ATC A351	Flight Dispatcher Operations	3
Program Elective [2]		3
Program Elective [2]		2-3
	Credits	**14-15**
	Total Credits	**120-121**

[1] *ATP A219 and ATP A220 are open-entry/open-exit and may be completed in the same semester. Students must complete ATP A219 to enroll in ATP A220.*

[2] *Upper Division if needed.*

Minor in Aviation Technology

Students majoring in another discipline who wish to minor in aviation technology must complete the following requirements. Students are

encouraged to select courses from the following list. Students may request prior approval of other aviation technology courses.

Code	Title	Credits
Complete 18 credits from the following:		18
AMT A171	Basic Aerodynamics	
AMT A172	Aircraft Publications, Regulations, and Records	
AMT A177	Aircraft Powerplant Theory	
AMT A178	Turbine Engine Theory	
AMT A185 & A185L	Aircraft Sheetmetal Structures and Aircraft Sheetmetal Structures Lab	
AMT A285 & A285L	Aircraft Bonded Structures and Aircraft Bonded Structures Lab	
ATA A133	Aviation Law and Regulations	
ATA A233	Aviation Safety	
ATA A331	Human Factors in Aviation	
ATA A335	Airport Operations	
ATA A336	Air Service Operations	
ATA A337	Airline Operations	
ATA A425	Civil Aviation Security	
ATA A431	Aircraft Accident Investigation	
ATA A492	Air Transportation System Seminar	
ATC A147	Air Traffic Communications	
ATP A100	Private Pilot Ground School	
ATP A235	Elements of Weather	
Total		**18**

A total of 18 credits is required for the minor; 6 credits must be upper-division.

Occupational Endorsement Certificate in Baking and Pastry Arts

The Occupational Endorsement Certificate (OEC) in Baking and Pastry Arts prepares students for entry-level baking positions within the hospitality and tourism industry. Students can advance in career opportunities because of their formal training and education. Career possibilities available to graduates of the baking and pastry arts program include positions in restaurants, bakeries, hotels, and institutions.

Some courses for this OEC are accredited by the American Culinary Federation Education Foundation's Accrediting Commission. Credits applied to this OEC can be applied to the Associate of Applied Science (AAS) in Culinary Arts.

Admission Requirements

- Complete the Admission Requirements for Occupational Endorsement Certificates (p. 46).
- Placement into MATH A055 or higher and WRTG A111 or higher. For testing schedule, contact the Testing Center.

Graduation Requirements

- Complete the General University Requirements for Occupational Endorsement Certificates (p. 440).
- Complete the following major requirements:

Code	Title	Credits
CA A101	The Hospitality Industry: Careers, Trends, and Practices	2
CA A104	Sanitation	2
CA A107	Procurement and Cost Control	3
CA A111	Bakery Skill Development Laboratory	4
CA A120	Artisan Breads	1
CA A125	Baking with Alternative Ingredients	1
CA A130	Basic Cakes	1
CA A202	Advanced Bakery	4
CA A235	Specialty Cakes	1
Total		**19**

A minimum of 19 credits is required for the certificate.

Program Student Learning Outcomes

Students graduating with the Occupational Endorsement Certificate in Baking and Pastry Arts will be able to:

- Apply theories and concepts of baking and demonstrate required techniques in a commercial bakery
- Apply theories and concepts of cooking and demonstrate required techniques in a commercial kitchen
- Demonstrate proficiency in sanitation and safety codes and apply procedures necessary to maintain a safe foodservice facility
- Analyze food cost and implement necessary controls to maintain costs and ensure profitability
- Demonstrate the ability to use human resource management and facility operation management to ensure customer service and profitability

Occupational Endorsement Certificate in Cisco-Certified Network Associate (CCNA)

The Occupational Endorsement Certificate in Cisco-Certified Network Associate prepares students for entry-level technician careers in the computer electronics and networking industries.

Admission Requirements

- Complete the Admission Requirements for Occupational Endorsement Certificates (p. 46).

Graduation Requirements

- Complete the General University Requirements for Occupational Endorsement Certificates (p. 440).
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
CNT A170	CCNA 1	4
CNT A261	CCNA 2	4
CNT A270	CCNA 3	4
Total		**12**

A minimum of 12 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with an Occupational Endorsement Certificate in Cisco Certified Network Associate (CCNA) will be able to:

- Show knowledge of network infrastructure.
- Demonstrate competence in entry-level tasks of design, configuration, operation and troubleshooting Ethernet and TCP/IP networks.
- Demonstrate competence in the configuration and troubleshooting of Cisco routers and switches.

Associate of Applied Science in Culinary Arts

The Associate of Applied Science in Culinary Arts prepares students for entry-level positions in the rapidly expanding and varied foodservice, hospitality, and tourism industry. Graduates can quickly advance in career opportunities because of their formal training and education.

Career possibilities available to graduates of the culinary arts program include positions in restaurants, bakeries, hotels, and institutions. Additionally, a wide variety of management positions are available to graduates.

The Associate of Applied Science in Culinary Arts is accredited by the American Culinary Federation Education Foundation's Accrediting Commission. Upon completion of the program, students are eligible to obtain the Certified Culinarian designation through the American Culinary Federation.

Admission Requirements

- Complete the Admission Requirements for Associate Degrees (p. 46).

Graduation Requirements

- Complete the General University Requirements for Associate Degrees (p. 441).
- Complete the General Education Requirements for Associate of Applied Science Degrees (p. 441).
- Complete the following major requirements:

Code	Title	Credits
CA A101	The Hospitality Industry: Careers, Trends, and Practices	2
CA A103	Culinary Skill Development Laboratory	4
CA A104	Sanitation	2
CA A107	Procurement and Cost Control	3
CA A111	Bakery Skill Development Laboratory	4
CA A114	Beverage Management [1]	3
CA A201	A la Carte Kitchen	4
CA A202	Advanced Bakery	4
CA A223	Catering Management	3
CA A224	Hospitality Service	3
CA A225	Hospitality Concept Design	3
CA A230	Foodservice Management	3
CA/DN A270	Culinary Nutrition	3
CA A295	Foodservice Internship	3
CA A490	Current Topics in Food and Hospitality [2]	1-6
Total		**45-50**

[1] *Or advisor approved elective.*
[2] *Must complete a minimum of 1 credit of CA A490.*

A minimum of 60 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with an Associate of Applied Science in Culinary Arts will be able to:

- Apply theories and concepts of baking and demonstrate required techniques in a commercial bakery.
- Apply theories and concepts of cooking and demonstrate required techniques in a commercial kitchen.
- Demonstrate proficiency in sanitation and safety codes and apply procedures necessary to maintain a safe foodservice facility.
- Analyze food cost and implement necessary controls to maintain costs and ensure profitability.
- Demonstrate the ability to use human resource management and facility operation management to ensure customer service and profitability.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student’s plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
CA A101	The Hospitality Industry: Careers, Trends, and Practices	2
CA A104	Sanitation	2
CA A107	Procurement and Cost Control	3
MATH A104	Technical Mathematics	3
WRTG A111	Writing Across Contexts	3
Program Elective		1
	Credits	**14**
Spring		
CA A103	Culinary Skill Development Laboratory	4
CA A201	A la Carte Kitchen	4
COMM A235	Small Group Communication	3
WRTG A212	Writing and the Professions	3
Program Elective		1
	Credits	**15**
Second Year		
Fall		
CA A111	Bakery Skill Development Laboratory	4
CA A114	Beverage Management	3
CA A202	Advanced Bakery	4
CA A225	Hospitality Concept Design	3
CA A270	Culinary Nutrition	3
Program Elective		1
	Credits	**18**
Spring		
CA A223	Catering Management	3
CA A224	Hospitality Service	3
CA A230	Foodservice Management	3
CA A295	Foodservice Internship	3
CA A490	Current Topics in Food and Hospitality	1
	Credits	**13**
	Total Credits	**60**

Occupational Endorsement Certificate in Culinary Arts

The Occupational Endorsement Certificate (OEC) in Culinary Arts prepares students for entry-level positions in the rapidly expanding and varied foodservice, hospitality, and tourism industries. Graduates can quickly advance in career opportunities because of their formal training and education. Career possibilities available to graduates of the culinary arts program include positions in restaurants, clubs, bakeries, hotels, and institutions.

Some courses for this OEC are accredited by the American Culinary Federation Education Foundation's Accrediting Commission. Credits applied to this OEC can be applied to the Associate of Applied Science (AAS) in Culinary Arts.

Admission Requirements

- Complete the Admission Requirements for Occupational Endorsement Certificate Programs (p. 46).
- Complete the following admission requirements:
  - Placement into MATH A055 or higher and WRTG A111 or higher. For testing schedule, contact the Testing Center.

Graduation Requirements

- Complete the General University Requirements for Occupational Endorsement Certificates (p. 440).
- Complete the following major requirements:

Code	Title	Credits
CA A101	The Hospitality Industry: Careers, Trends, and Practices	2
CA A103	Culinary Skill Development Laboratory	4
CA A104	Sanitation	2
CA A107	Procurement and Cost Control	3
CA A201	A la Carte Kitchen	4
Advisor approved culinary elective credits		4
Total		**19**

A minimum of 19 credits is required for the certificate.

Program Student Learning Outcomes

Students graduating with an Occupational Endorsement Certificate in Culinary Arts will be able to:

- Apply theories and concepts of baking and demonstrate required techniques in a commercial bakery.
- Apply theories and concepts of cooking and demonstrate required techniques in a commercial kitchen.
- Demonstrate proficiency in sanitation and safety codes and apply procedures necessary to maintain a safe foodservice facility.
- Analyze food cost and implement necessary controls to maintain costs and ensure profitability.
- Demonstrate the ability to use human resource management and facility operation management to ensure customer service and profitability.

Occupational Endorsement Certificate in Commercial Refrigeration Systems

Admission to this program is temporarily suspended. Contact the Community and Technical College for more information.

Bachelor of Arts in Communication

The Bachelor of Arts (BA) in Communication prepares students to understand the critical role of communication in the diverse contexts of their lives and to apply skills, such as critical thinking, collaborative problem solving, intercultural communication, conflict management, and persuasion in personal and professional contexts.

Admission Requirements

- Complete the Admission Requirements for Baccalaureate Programs (p. 46).

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (p. 442).
- Complete the General Education Requirements for Baccalaureate Degrees (p. 443).
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
Foundational Courses		
Complete one of the following foundational courses:		3
COMM A111	Fundamentals of Oral Communication	
COMM A235	Small Group Communication	
COMM A237	Interpersonal Communication	
COMM A241	Public Speaking	
Core Courses		
COMM A280	Communication Theories in Action	3
COMM A305	Intercultural Communication	3
or COMM A345	Communication and Gender	
COMM A385	Communication Research Methods	3
COMM A412	Persuasion	3
Communication Electives		
Complete an additional 8 courses from the following, of which at least 5 must be upper division		24
COMM A111	Fundamentals of Oral Communication	
COMM A235	Small Group Communication	
COMM A237	Interpersonal Communication	
COMM A241	Public Speaking	
COMM A255	Organizational Communication	
COMM A300	Health Communication	
COMM A305	Intercultural Communication	
COMM A320	Argumentation and Debate	
COMM A330	Collaboration and Group Decision Making	
COMM A335	Communication and Conflict	
COMM A340	Nonverbal Communication	
COMM A341	Advanced Public Speaking	
COMM A345	Communication and Gender	
COMM A350	Communication in the Workplace	
COMM A360	Competitive Debating	
COMM A370	Relational Communication	
COMM A390	Selected Topics in Communication	
COMM A420	Family Communication	
COMM A450	Communication and Leadership	
Language Requirement		
Complete two courses in any one language other than English, which may include American Sign Language or Alaska Native Languages		8
Total		**47**

A minimum of 120 credits is required for the degree, of which 39 must be upper-division.

Program Student Learning Outcomes

Students graduating with a Bachelor of Arts (BA) in Communication will be able to:

- Explain, synthesize, apply, and critique communication theories, perspectives, principles, and concepts;
- Engage in communication scholarship;
- Create ethical, appropriate, and effective messages for the relationship, audience, purpose, and context;
- Critically analyze and respond to messages;
- Use communication to understand difference.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year

Fall		**Credits**
WRTG A111	Writing Across Contexts	3
COMM A280	Communication Theories in Action	3
GER Fine Arts		3
GER Oral Communication Skills		3
GER Quantitative Skills		3
	Credits	**15**
Spring		
COMM A305 or COMM A345	Intercultural Communication or Communication and Gender	3
GER Natural Science		3
GER Natural Science Lab		1
GER Written Communication Skills (200-level WRTG)		3
Program Elective		3
	Credits	**13**

Second Year

Fall		
GER Natural Science Lecture		3
GER Social Sciences		3
Elective		3
Program Elective		3
Program Elective (Language)		4
	Credits	**16**
Spring		
GER Alaska Native-Themed		3
GER Intercultural Fluency		3
GER Social Sciences		3
Program Elective		3
Program Elective (Language)		4
	Credits	**16**

Third Year

Fall		
Elective		3
Elective		3
Elective		3
Upper Division Program Elective		3
Upper Division Program Elective		3
	Credits	**15**
Spring		
COMM A385	Communication Research Methods	3
Elective		3
Upper Division Elective		3
Upper Division Program Elective		3
Upper Division Program Elective		3
	Credits	**15**

Fourth Year

Fall		
Elective		3
Elective		3
Upper Division Elective		3
Upper Division Elective		3
Upper Division Program Elective		3
	Credits	**15**
Spring		
COMM A412	Persuasion	3
Elective		3
Elective		3
Upper Division Elective		3

Upper Division Elective	3
Credits	**15**
Total Credits	**120**

Minor in Communication

The Minor in Communication supports personal and professional success through the development of effective communication skills. Students majoring in another subject who wish to minor in communication must complete the following requirements with a minimum grade of C in each course.

Code	Title	Credits
Complete 18 credits from the following, 9 of which must be upper division:		18
COMM A111	Fundamentals of Oral Communication	
COMM A235	Small Group Communication	
COMM A237	Interpersonal Communication	
COMM A241	Public Speaking	
COMM A255	Organizational Communication	
COMM A280	Communication Theories in Action	
COMM A300	Health Communication	
COMM A305	Intercultural Communication	
COMM A320	Argumentation and Debate	
COMM A330	Collaboration and Group Decision Making	
COMM A335	Communication and Conflict	
COMM A340	Nonverbal Communication	
COMM A341	Advanced Public Speaking	
COMM A345	Communication and Gender	
COMM A350	Communication in the Workplace	
COMM A360	Competitive Debating	
COMM A370	Relational Communication	
COMM A390	Selected Topics in Communication	
COMM A412	Persuasion	
COMM A420	Family Communication	
COMM A450	Communication and Leadership	
Total		**18**

A minimum of 18 credits is required for the minor.

Associate of Applied Science in Computer and Networking Technology

The name and program requirements for Computer & Networking Technology have changed. The new program is Computer Systems & Network Technology. Contact the Community and Technical College for more information.

Associate of Applied Science in Computer Systems and Network Technology

The Associate of Applied Science (AAS) in Computer Systems and Network Technology (CSNT) prepares students for employment in computer networking and information systems administration. This program encompasses vendor-neutral and theoretical concepts and practices. The program includes Microsoft Windows Server and Desktop operating systems, as well as Cisco routing and switching technologies.

The AAS in Computer Systems and Network Technology offers students the business, communication, teamwork, technical skills, and IT concepts needed to enter the workforce as entry-level technicians or administrators. It also provides a foundation for advanced studies in information technology and related fields.

The AAS in Computer Systems and Network Technology constitutes the first two years of the Bachelor of Science (BS) in Applied Technologies Leadership.

Admission Requirements

- Complete the Admission Requirements for Associate Degrees (p. 46).

Graduation Requirements

- Complete the General University Requirements for Associate Degrees (p. 441).
- Complete the General Education Requirements for Associate of Applied Science Degrees (p. 441).
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
CNT A160	PC Operating Systems	3
CNT A165	Customer Service Fundamentals	1
CNT A170	CCNA 1	4
CNT A183	Local Area Networks	3
CNT A210	PC Technician Fundamentals	3
or CNT A162	PC Architecture and Building	
CNT A240	Industry PC Configuration Essentials	2
CNT A241	Administering and Supporting Industry Network Infrastructure	3
CNT A242	Industry Network Directory Configuration	3
CNT A243	Industry Application Infrastructure	3
CNT A261	CCNA 2	4
CNT A264	Introduction to Information Security	3
CNT A270	CCNA 3	4

CNT A275	Information Technology Project Management	2
Complete 10 credits from courses approved by CSNT faculty or from the following courses:		**10**
BADA A105	Introduction to Personal Computers and Application Software	
or BADA A110	Computer Concepts in Business	
BA A151	Business Foundations	
or BA A231	Fundamentals of Supervision	
CNT A168	Computer User Support and Help Desk	
or CNT A262	Computer Technical Support	
CNT A276	Individual Technical Project	
CNT A282	Industry Workplace Experience	
CNT A290	Selected Topics in Information Technology	
CNT A390	Selected Topics in Computer and Networking Technology	
Total		**48**

A minimum of 60 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with an Associate of Applied Science in Computer Systems and Network Technology will be able to:

- Show an understanding of IT concepts and technical skills, installing and configuring operating systems, and using utility software.
- Show knowledge of computer hardware and peripherals.
- Demonstrate competence in IT workplace service skills through customer service, troubleshooting and implementation of security.
- Demonstrate competence in entry-level tasks of design, configuration, operation and troubleshooting Ethernet and TCP/IP networks using Cisco routers and switches.
- Show knowledge of network infrastructure, network workgroups, and domain administration.
- Demonstrate the ability to manage an IT-related project by professionally and ethically utilizing business principles, communication skills and teamwork.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

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- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
CNT A160	PC Operating Systems	3
CNT A162 or CNT A210	PC Architecture and Building or PC Technician Fundamentals	3
CNT A165	Customer Service Fundamentals	1
COMM A111	Fundamentals of Oral Communication	3
WRTG A111	Writing Across Contexts	3
Program Elective: (BA or BADA or CNT)		3
	Credits	**16**
Spring		
CNT A170	CCNA 1	4
CNT A183	Local Area Networks	3
MATH A105	Intermediate Algebra	4
WRTG A212	Writing and the Professions	3
Program Elective: (BA or BADA or CNT)		3
	Credits	**17**
Second Year		
Fall		
CNT A240	Industry PC Configuration Essentials (First part of term)	2
CNT A241	Administering and Supporting Industry Network Infrastructure (Second part of term)	3
CNT A261	CCNA 2	4

CNT A264	Introduction to Information Security	3
CNT A275	Information Technology Project Management	2
	Credits	**14**
Spring		
CNT A242	Industry Network Directory Configuration (First part of term)	3
CNT A243	Industry Application Infrastructure (Second part of term)	3
CNT A270	CCNA 3	4
Program Elective: (BA or BADA or CNT)		4
	Credits	**14**
	Total Credits	**61**

Associate of Applied Science in Construction Management

The Associate of Applied Science in Construction Management (AASCM) prepares students to work as entry-level managers in the construction industry. Managers help control construction costs and schedules; administer contracts; determine construction means and methods; and manage people, material, and equipment while ensuring compliance with design criteria and safety standards.

The Associate in Applied Science in Construction Management is nationally accredited by the American Council for Construction Education.

The AASCM meets the requirements for the first two years of the Bachelor of Science (BS) in Construction Management.

Admission Requirements

- Complete the Admission Requirements for Associate Degrees (p. 46).

Graduation Requirements

- Complete the General University Requirements for Associate Degrees (p. 441).
- Complete the General Education Requirements for Associate of Applied Science Degrees (p. 441).
  - For the Quantitative Skills requirement, choose MATH A105 or higher.
- Complete the following major requirements:

Code	Title	Credits
ACCT A201	Principles of Financial Accounting	3
AET A101	Fundamentals of Construction Documents	3
AET A102	Methods and Materials of Building Construction	3
AET A123	Codes and Standards	3
AET A213	Fundamentals of Civil Construction	4
AET A242	Mechanical, Electrical and Plumbing Systems	4
BA A241	Business Law I	3
CM A163	Building Construction Cost Estimating	3
CM A201	Construction Project Management I	3
CM A202	Project Planning and Scheduling	3
CM A232	Statics and Strength of Materials	3
CM A263	Civil Construction Cost Estimating	3
CM A295	Construction Management Internship	3
or CM A495	Advanced Construction Management Internship	
GEO A181	Construction Surveying	1
OSH A405	Construction Industry Safety Management	3
PHYS A115 & A115L	Physical Science and Physical Science Lab	4
or PHYS A123 & A123L	College Physics I and College Physics I Laboratory	
Total		**49**

A minimum of 61 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with an Associate of Applied Science in Construction Management will be able to:

- Demonstrate effective communication, both orally and in writing.
- Create construction project cost estimates.
- Create construction project schedules.
- Demonstrate the ability to use current technology related to the construction process.
- Interpret construction documents (contracts, specifications, and drawings) used in managing a construction project.
- Apply basic principles of construction accounting.
- Use basic surveying techniques used in building layout.
- Discuss the basic principles of ethics in the construction industry.
- Identify the fundamentals of contracts, codes, and regulations that govern a construction project.
- Recognize basic construction methods, materials and equipment.
- Recognize basic safety hazards on a construction site and standard prevention measures.
- Recognize the basic principles of structural design.
- Recognize the basic principles of mechanical, electrical and piping systems.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan

may vary according to their initial course placement (https://uaa-alaska-test.courseleaf.com/academicpoliciesprocesses/academicstandardsregulations/courseplacement/), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (https://uaa-alaska-test.courseleaf.com/undergraduateprograms/baccalaureaterequirements/gers/). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
AET A101	Fundamentals of Construction Documents	3
AET A102	Methods and Materials of Building Construction	3
COMM A111	Fundamentals of Oral Communication	3
MATH A105	Intermediate Algebra	4
WRTG A111	Writing Across Contexts	3
	Credits	**16**
Spring		
AET A213	Fundamentals of Civil Construction	4
CM A201	Construction Project Management I	3
PHYS A115 & A115L	Physical Science and Physical Science Lab	4
WRTG A212	Writing and the Professions	3
	Credits	**14**
Second Year		
Fall		
AET A123	Codes and Standards	3
AET A242	Mechanical, Electrical and Plumbing Systems	4
CM A163	Building Construction Cost Estimating	3
CM A232	Statics and Strength of Materials	3
OSH A405	Construction Industry Safety Management	3
	Credits	**16**
Spring		
ACCT A201	Principles of Financial Accounting	3
BA A241	Business Law I	3
CM A202	Project Planning and Scheduling	3
CM A263	Civil Construction Cost Estimating	3
CM A295 or CM A495	Construction Management Internship or Advanced Construction Management Internship	3
GEO A181	Construction Surveying	1
	Credits	**16**
	Total Credits	**62**

Bachelor of Science in Construction Management

The Bachelor of Science in Construction Management (BSCM) prepares students to work as entry-level managers in the construction industry. Managers help control construction costs and schedules; administer contracts; determine construction means and methods; and manage people, material, and equipment while ensuring compliance with design criteria and safety standards.

The BSCM is nationally accredited by the American Council for Construction Education.

Admission Requirements

- Complete the Admission Requirements for Baccalaureate Degrees (p. 46).

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (p. 442).
- Complete the General Education Requirements for Baccalaureate Degrees (p. 443).
- Complete the following major requirements:

Code	Title	Credits
Support Courses		
ACCT A201	Principles of Financial Accounting	3
ACCT A202	Principles of Managerial Accounting	3

AET A411	Northern Design	3
BA A241	Business Law I	3
BA A300	Organizational Theory and Behavior	3
ECON A101	Principles of Microeconomics	3
ECON A102	Principles of Macroeconomics	3
GEO A181	Construction Surveying	1
PHIL A301	Ethics	3
or PHIL A305	Professional Ethics	
PHYS A123	College Physics I	3
PHYS A123L	College Physics I Laboratory	1
WRTG A212	Writing and the Professions [1]	3
Complete one of the following science courses with a laboratory class:		4
CHEM A105 & A105L	General Chemistry I and General Chemistry I Laboratory	
GEOL A111 & A111L	Planet Earth and Planet Earth Laboratory	
Complete one additional science course with laboratory at or above the 100 level in CHEM, ENVI, GEOL or PHYS		4
Complete one of the following:		3-6
MATH A221	Applied Calculus for Managerial and Social Sciences	
MATH A251	Calculus I	
MATH A251F	F.A.T. Calculus I	
STAT A253	Applied Statistics for the Sciences	
Core Courses		
AET A101	Fundamentals of Construction Documents	3
AET A102	Methods and Materials of Building Construction	3
AET A123	Codes and Standards	3
AET A213	Fundamentals of Civil Construction	4
AET A242	Mechanical, Electrical and Plumbing Systems	4
AET A332	Structural Technology	3
CM A163	Building Construction Cost Estimating	3
CM A201	Construction Project Management I	3
CM A202	Project Planning and Scheduling	3
CM A232	Statics and Strength of Materials	3
CM A263	Civil Construction Cost Estimating	3
CM A301	Construction Project Management II	3
CM A313	Soils in Construction	3
CM A401	Construction Law	3
CM A422	Sustainability in the Built Environment	3
CM A440	Financial Management for Construction	3
CM A450	Construction Management Professional Practice [2]	3
CM A460	Construction Equipment Management and Methods	3
CM A495	Advanced Construction Management Internship	3
OSH A405	Construction Industry Safety Management	3
Total		**105-108**

[1] *Or WRTG A2W.*

[2] *All BSCM majors are also required to sit for the eight-hour, comprehensive American Institute of Constructors, Associate Constructor (Level 1) Exam as part of CM A450. CM A450 should be taken during the last or second-to-last semester before graduation.*

A minimum of 120 credits is required for the degree, of which 39 credits must be upper-division.

Program Student Learning Outcomes

Students graduating with a Bachelor of Science in Construction Management will be able to:

- Create written communications appropriate to the construction discipline.
- Create oral presentations appropriate to the construction discipline.
- Create a construction project safety plan.
- Create construction project cost estimates.
- Create construction project schedules.
- Analyze professional decisions based on ethical principles.
- Analyze construction documents for planning and management of construction processes.
- Analyze methods, materials, and equipment used to construct projects.
- Apply construction management skills as a member of a multi-disciplinary team.
- Apply electronic-based technology to manage the construction process.
- Apply basic surveying techniques for construction layout and control.
- Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process.
- Understand construction risk management.
- Understand construction accounting and cost control.
- Understand construction quality assurance and control.
- Understand construction project control processes.
- Understand the legal implications of contract, common, and regulatory law to manage a construction project.
- Understand the basic principles of sustainable construction.

- Understand the basic principles of structural behavior.
- Understand the basic principles of mechanical, electrical and piping systems.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

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- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
AET A101	Fundamentals of Construction Documents	3
AET A102	Methods and Materials of Building Construction	3
COMM A111	Fundamentals of Oral Communication	3
MATH A105	Intermediate Algebra	4
WRTG A111	Writing Across Contexts	3
	Credits	**16**
Spring		
AET A213	Fundamentals of Civil Construction	4
CM A201	Construction Project Management I	3
MATH A151	College Algebra for Calculus	4
PHYS A123 & A123L	College Physics I and College Physics I Laboratory	4
WRTG A212	Writing and the Professions	3
	Credits	**18**
Second Year		
Fall		
AET A123	Codes and Standards	3
AET A242	Mechanical, Electrical and Plumbing Systems	4
CM A163	Building Construction Cost Estimating	3
CM A232	Statics and Strength of Materials	3
OSH A405	Construction Industry Safety Management	3
	Credits	**16**
Spring		
ACCT A201	Principles of Financial Accounting	3
BA A241	Business Law I	3
CM A202	Project Planning and Scheduling	3
CM A263	Civil Construction Cost Estimating	3
CM A495	Advanced Construction Management Internship	3
GEO A181	Construction Surveying	1
	Credits	**16**
Third Year		
Fall		
ACCT A202	Principles of Managerial Accounting	3
CM A313	Soils in Construction	3
ECON A101	Principles of Microeconomics	3
GEOL A111 & A111L	Planet Earth and Planet Earth Laboratory	4
GER Fine Arts		3
	Credits	**16**
Spring		
AET A332	Structural Technology	3
AKNS A201	Alaska Native Perspectives	3
CM A301	Construction Project Management II	3
CM A422	Sustainability in the Built Environment	3
MATH A221 or MATH A251 or MATH A251F or STAT A253	Applied Calculus for Managerial and Social Sciences or Calculus I or F.A.T. Calculus I or Applied Statistics for the Sciences	3-6
	Credits	**15-18**
Fourth Year		
Fall		
AET A411	Northern Design	3
CM A401	Construction Law	3

CM A450	Construction Management Professional Practice	3
CM A460	Construction Equipment Management and Methods	3
Program Elective (CHEM, ENVI, GEOL, or PHYS)		4
	Credits	**16**
Spring		
BA A300	Organizational Theory and Behavior	3
CM A440	Financial Management for Construction	3
ECON A102	Principles of Macroeconomics	3
PHIL A301 or PHIL A305	Ethics or Professional Ethics	3
	Credits	**12**
	Total Credits	**125-128**

Occupational Endorsement Certificate in Construction Skills

This program is delivered only through Prince William Sound College.

The Occupational Endorsement Certificate (OEC) in Construction Skills prepares students to perform building and facility maintenance and repair.

Admission Requirements

- Complete the Admission Requirements for Occupational Endorsement Certificates. (p. 46)

Graduation Requirements

- Complete the General University Requirements for Occupational Endorsement Certificates (p. 440).
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
RE A140	Home Energy Basics	1
ITEC A102	Core Curriculum for Skilled Trades	2
ITEC A130	Introduction to Framing	1
ITEC A134	Siding Installation	1
ITEC A135	Insulation Systems	1
ITEC A136	Floor Coverings	1
ITEC A137	Drywall Installation and Finishing	1
ITEC A138	Roofing Installation	1
ITEC A139	Door and Window Installation	1
ITEC A141	Kitchen and Bathroom Fixtures	1
ITEC A152	Electrical Fixtures	1
ITEC A295	Industrial Technology Internship	4
Total		**16**

A minimum of 16 credits is required for this certificate

Program Student Learning Outcomes

Students graduating with an Occupational Endorsement Certificate in Construction Skills will be able to:

- Perform framing repairs to residences and facilities
- Perform plumbing repairs to residences and facilities
- Change plumbing trim components
- Perform electrical repairs to residences and facilities
- Change electrical trim components
- Perform general construction skills such as hanging wallboard, doors, and windows

Associate of Applied Science in Diesel Power Technology

The Associate of Applied Science (AAS) in Diesel Power Technology is designed to teach students the skills needed to be successful as technicians in the medium- and heavy-duty truck and equipment service industry. The AAS may be completed in four semesters, which includes one summer semester of practicum. Laboratory experiences are performed on equipment and components currently used in the heavy-duty transportation, construction and power generation industries.

Career opportunities for graduates include manufacturer and independent repair and maintenance shops, fleets, construction, mining, aviation ground support, and the seafood processing industry. Employers require technicians to be drug free and physically fit, and to have a current vehicle operator’s license with a good driving record. Equal opportunities are available for men and women.

This AAS program prepares students to understand the theory of, diagnose, and repair diesel engines, as well as medium- and heavy-duty drive trains, pneumatic and hydraulic brake systems, suspension steering, electrical/electronic systems, and heating and air conditioning systems on medium- and heavy-duty vehicle applications.

The AAS in Diesel Power Technology prepares students with the technical education and training necessary to be successful in a variety of careers related to the diesel maintenance and repair industry. Students will learn theory and gain hands-on experience with various systems including hydraulics, electrical and electronics, and engine overhaul. Career opportunities for graduates include manufacturer and independent repair and maintenance shops, fleets, construction, mining, maritime, aviation ground support, and the seafood processing industry.

The AAS in Diesel Power Technology is accredited by the Automotive Service Excellence (ASE) Education Foundation.

The AAS in Diesel Power Technology constitutes the first two years of the Bachelor of Science (BS) in Applied Technologies Leadership.

Admission Requirements

- Complete the Admission Requirements for Associate Degrees. (p. 46)

Special Considerations

- Employers require individuals to have their own tools. A list of entry-level required tools can be found on the Diesel Power Technology website (https://www.uaa.alaska.edu/academics/community-and-technical-college/departments/transportation-and-power/academics/diesel-power-technology/diesel-power-tool-list.cshtml/).
- Employers require technicians to be drug-free and physically fit and to have a current vehicle operator's license with a good driving record.

Graduation Requirements

- Complete the General University Requirements for Associate Degrees (p. 441).
- Complete the General Education Requirements for Associate of Applied Science Degrees (p. 441).
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
Core Courses		
ADT A102	Introduction to Automotive Technology	3
ADT A121	Basic Electrical Systems	3
ADT A131	Auto Electrical II	3
ADT A152	Heavy-Duty Suspension and Steering	4
ADT A153	Medium/Heavy-Duty Diesel Engines	4
ADT A155	Heavy-Duty Brake Systems	4
ADT A156	Heavy-Duty Maintenance and Inspection	3
ADT A195	Automotive Practicum I	3
or ADT A295	Automotive Practicum II	
ADT A225	Mobile Heating, Ventilation and Air Conditioning Systems	3
ADT A227	Auto Electrical III	3
ADT A267	Heavy-Duty Diesel Engine Performance	4
ADT A268	Mobile Hydraulic Systems	4
ADT A269	Heavy-Duty Drive Trains	3
WELD A101	Introduction to Welding	3-4
or WELD A112	Shielded Metal Arc Welding (SMAW)	
Total		**47-48**

A minimum of 60 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with an Associate of Applied Science in Diesel Power Technology will be able to:

- Demonstrate academic proficiency necessary to pass national examinations within the domain.
- Demonstrate proficiency in performing occupationally related tasks in a professional setting.
- Integrate knowledge from diverse areas to develop effective diagnostic and repair strategies involving complex systems.
- Request, collect, summarize, evaluate, and apply oral and written information gathered from technical (e.g. schematics, technical bulletins, and service information) and nontechnical (e.g. customer oral and written reports) sources regarding symptoms and potential diagnostic and repair strategies for diesel powered equipment.
- Apply knowledge gained from previous education and experience to problem solving to aid in diagnosis and repair for the immediate situation.
- Demonstrate effective employability skills, including oral and written communication skills, as required by the 2014 accreditation standards for the National Automotive Technicians Education Foundation.
- Demonstrate technical knowledge and critical thinking necessary for success in the heavy-duty maintenance and repair industry.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

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- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a

degree/certificate requirement. Students should seek assistance from their academic advisor.

- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

Undergraduate Certificate in Diesel Power Technology

The Diesel Power Technology Undergraduate Certificate is designed to teach students the skills needed to be successful as technicians in the medium- and heavy-duty truck and equipment service industry. The undergraduate certificate may be completed in three semesters, which includes one summer semester of practicum. Laboratory experiences are performed on equipment and components currently used in the heavy-duty transportation, construction and power generation industries.

Career opportunities for graduates include manufacturer-specific service centers and independent repair and maintenance facilities. Students in the diesel power technology program can find employment within fleet service centers, construction equipment repair, maritime and mining industries, trucking and transportation, aviation ground support, and the seafood processing industry. Employers require technicians to be drug free and physically fit, and to have a current vehicle operator's license with a good driving record. Equal opportunities are available for men and women.

This undergraduate certificate program prepares students to understand the theory and operation of various systems and components associated with the medium- and heavy-duty diesel industry. Students develop the necessary skills for overhauling diesel engines and other major components through a combination of lecture and hands on training. The program also includes courses that focus on medium- and heavy-duty drive trains, braking systems (electric, pneumatic and hydraulic), suspension, steering, electrical/electronic systems, mobile hydraulics, and heating and air conditioning systems that are related to medium- and heavy-duty applications.

Admission Requirements

- Complete the Admission Requirements for Undergraduate Certificates (p. 46).
- Complete the following admission requirements:
  - Submit UAA Undergraduate Application for Admission for the Diesel Power Technology Undergraduate Certificate.
  - Document placement at the MATH A055 entry level or higher and at the WRTG A090 entry level or higher. For testing schedule, contact Testing Center at (907) 786-4500.

Advising

All students must meet with an academic advisor in the Auto/Diesel Technology (ADT) department prior to beginning any program of study and are encouraged to meet each semester for the purpose of reviewing their academic progress and planning future courses. It is particularly important for students to meet with their advisor whenever academic difficulties arise. Degree check sheets are available in the ADT office.

See the ADT advisor for appropriate sequence of courses.

Note: If you plan on getting a Commercial Drivers License (CDL), it is advisable to check fitness for a CDL physical.

Graduation Requirements

- Satisfy the General University Requirements for Undergraduate Certificates (p. 441).
- Complete the following program requirements:

Program Requirements

Code	Title	Credits
ADT A102	Introduction to Automotive Technology	3
ADT A121	Basic Electrical Systems	3
ADT A131	Auto Electrical II	3
ADT A153	Medium/Heavy-Duty Diesel Engines	4
ADT A155	Heavy-Duty Brake Systems	4
ADT A156	Heavy-Duty Maintenance and Inspection	3
ADT A195	Automotive Practicum I	3
ADT A225	Mobile Heating, Ventilation and Air Conditioning Systems	3
ADT A268	Mobile Hydraulic Systems	4
ADT A269	Heavy-Duty Drive Trains	3
WELD A101	Introduction to Welding	3-4
or WELD A112	Shielded Metal Arc Welding (SMAW)	
Total		**36-37**

A minimum of 36 credits is required for the degree.

Program Student Learning Outcomes

At the completion of this undergraduate certificate program, students are able to:

- Demonstrate technical knowledge and critical thinking necessary for success in the heavy-duty diesel maintenance and repair industry.
- Demonstrate academic proficiency necessary to pass national examinations within the domain.
- Demonstrate proficiency in performing occupationally related tasks in a professional setting.
- Integrate knowledge from diverse areas to develop effective diagnostic and repair strategies involving complex systems.
- Demonstrate effective employability skills, including oral and written communication skills, as required by the 2014 accreditation standards for the National Automotive Technicians Education Foundation.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

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First Year		
Fall		**Credits**
ADT A102	Introduction to Automotive Technology	3
ADT A121	Basic Electrical Systems	3
ADT A131	Auto Electrical II	3
ADT A153	Medium/Heavy-Duty Diesel Engines	4
ADT A156	Heavy-Duty Maintenance and Inspection	3
ADT A269	Heavy-Duty Drive Trains	3
	Credits	**19**
Spring		
ADT A155	Heavy-Duty Brake Systems	4
ADT A195	Automotive Practicum I	3
ADT A225	Mobile Heating, Ventilation and Air Conditioning Systems	3
ADT A268	Mobile Hydraulic Systems	4
WELD A101	Introduction to Welding	3
	Credits	**17**
	Total Credits	**36**

Occupational Endorsement Certificate in Electric Vehicle and Hybrid Specialist

The Occupational Endorsement Certificate in Electric Vehicle (EV) and Hybrid Specialist provides students with the technical education and training necessary to be successful in today's automotive Electric and Hybrid vehicles. Students will study the various vehicle systems, including electrical and electronics, computerized controls, EV battery technology and controls, EV motors, and components that make up today's complex hybrid and electric vehicles.

Admission Requirements

- Complete the Admission Requirements for Occupational Endorsement Certificates (p. 46).

Graduation Requirements

- Complete the General University Requirements for Occupational Endorsement Certificates (p. 440).
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
ADT A102	Introduction to Automotive Technology	3
ADT A121	Basic Electrical Systems	3
ADT A131	Auto Electrical II	3
ADT A227	Auto Electrical III	3
ADT A230	Electric and Hybrid Vehicle I	3
ADT A240	Electric and Hybrid Vehicle II	3
Total		**18**

A minimum of 18 credits is required for the certificate.

Program Student Learning Outcomes

Students graduating with an Occupational Endorsement Certificate in Electrical Vehicle & Hybrid Specialist will be able to:

- Demonstrate technical knowledge and skills necessary for success in the EV and hybrid repair industry.
- Demonstrate academic proficiency necessary to pass national examinations.
- Integrate knowledge from diverse areas to develop effective diagnostic and repair strategies involving complex EV and hybrid systems.
- Demonstrate effective oral and written communication skills necessary for success in the workplace.

Associate of Applied Science in Industrial Process Instrumentation

This program is delivered only through Kenai Peninsula College.

The Associate of Applied Science (AAS) in Industrial Process Instrumentation prepares students for entry-level employment in a variety of process industries such as petroleum, mining, power generation, chemical manufacturing, renewable energy, and food processing.

Program coursework includes pneumatic instrumentation, electronic instrumentation, computer digital interfacing, distributed control systems (DCS) and supervisory control and data acquisition (SCADA) applications. Students gain hands-on experience with instrument loop tuning, instrument installation, troubleshooting and repair.

The AAS in Industrial Process Instrumentation constitutes the first two years of the Bachelor of Science (BS) in Applied Technologies Leadership.

Admission Requirements

- Complete the Admission Requirements for Associate Degrees (p. 46).

Graduation Requirements

- Complete the General University Requirements for Associate Degrees (p. 441).
- Complete the General Education Requirements for Associate of Applied Science Degrees (p. 441).
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
Core courses		
ET A101 & A101L	Basic Electronics: DC Circuits and Basic Electronics: DC Circuits Lab	4
ET A102 & A102L	Basic Electronics: AC Circuits and Basic Electronics: AC Circuits Lab	4
ET A126 & A126L	Digital Electronics and Digital Electronics Lab	4
ET A175	Technical Introduction to Computing Systems	3
ET A240	Computer Systems Interfacing	3
ET A241	Digital Control Systems	3
ET A243	Programmable Logic Controllers	3
ET A246	Electronic Industrial Instrumentation	3
PETR A240	Industrial Process Instrumentation III	3
PETR A244	Industrial Process Instrumentation IV	3
PHYS A115 & A115L	Physical Science and Physical Science Lab	4
or PHYS A123 & A123L	College Physics I and College Physics I Laboratory	
PRT A130 & A130L	Process Technology I: Equipment and Process Technology I: Equipment Lab	4
PRT A140	Industrial Process Instrumentation I	3
PRT A144	Industrial Process Instrumentation II	3
Electives		
Complete 1-3 credits of advisor-approved electives.		1-3
Total		**48-50**

A minimum of 60 credits is required for the degree.

Program Student Learning Outcomes

Graduates of the UAA industrial process instrumentation program will have the ability to:

- Read P & ID drawings and interpret instrument symbols.
- Describe the output from a pneumatic or electronic transmitter for a given process input condition.
- Describe the effect of changes in gain or integral time on the dynamic behavior of closed-loop control.
- Describe the techniques for troubleshooting an orifice meter and flow control loop using either electronic or pneumatic equipment.
- Identify the voltage drops in a series connected current loop or a parallel connected voltage loop.
- Distinguish between data transmitted by analog signals and data transmitted by digital signals.

Occupational Endorsement Certificate in IT Support Desk Technician

The Occupational Endorsement Certificate in IT Support Desk Technician prepares students for entry-level positions in Information Technology as desktop support technicians or help desk technicians. Completion of the certificate courses constitutes 12 credits towards the AAS in Computer Systems and Network Technology.

Admission Requirements

- Complete the Admission Requirements for Occupational Endorsement Certificates (p. 46).

Graduation Requirements

- Complete the General University Requirements for Occupational Endorsement Certificates (p. 440).
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
BADA A105	Introduction to Personal Computers and Application Software	3
or BADA A110	Computer Concepts in Business	
CNT A160	PC Operating Systems	3
CNT A165	Customer Service Fundamentals	1
CNT A162	PC Architecture and Building	3
or CNT A210	PC Technician Fundamentals	
COMM A111	Fundamentals of Oral Communication	3
WRTG A110	Introduction to College Writing	3
or WRTG A111	Writing Across Contexts	
Total		**16**

A minimum of 16 credits is required for the certificate.

Program Student Learning Outcomes

Students graduating with an Occupational Endorsement Certificate in IT Support Desk Technician will be able to:

- Show an understanding of installing and configuring operating systems.
- Show knowledge of computer hardware and peripherals.
- Demonstrate competence in IT workplace service skills through customer service and troubleshooting.

Occupational Endorsement Certificate in Marine Service Technology

This program is delivered only through the Prince William Sound College.

The Occupational Endorsement Certificate in Marine Service Technology prepares students for technician-level work in the maritime industry.

Admission Requirements

- Complete the Admission Requirements for Occupational Endorsement Certificates (p. 46).

Graduation Requirements

- Complete the General University Requirements for Occupational Endorsement Certificates (p. 440).
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
MT A102	Introduction to Maritime Trades	2
MT A110	Marine Boathandling and Safety	1
MT A112	Internal Combustion Engine Theory	2
MT A113	Outboard Engines	2
MT A114	Gasoline Inboard Maintenance and Troubleshooting	2
MT A119	Marine Electrical	2
MT A120	Marine Electronics	1
MT A121	Marine Plumbing	1
MT A130	Marine Drive Systems	1
MT A140	Marine Boat Trailers	1
MT A150	Marine Materials	1
Total		**16**

A minimum of 16 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with an Occupational Endorsement Certificate in Marine Service Technician will be able to:

- Perform maintenance, servicing, and repairs on a variety of small to mid-sized motors and engines used in marine and outdoor environments
- Perform repairs or installations of marine electrical systems
- Perform repairs or installations of marine plumbing systems
- Perform maintenance and repairs on marine drive systems
- Perform electrical and mechanical maintenance and repairs on boat trailers
- Perform repairs on boat hulls and boat interiors

Occupational Endorsement Certificate in Millwright

This program is delivered only through Prince William Sound College.

Admission Requirements

- Complete the Admission Requirements for Occupational Endorsement Certificates. (p. 46)

Graduation Requirements

- Complete the General University Requirements for Occupational Endorsement Certificates. (p. 440)
- Complete the following major requirements:

Code	Title	Credits
ITEC A101	Hazwoper 24 Hour	1.5
ITEC A111	Millwright Level I	4
ITEC A112	Millwright Level II	4
ITEC A125	Confined Space Awareness	0.5
ITEC A211	Millwright Level III	5
ITEC A212	Millwright Level IV	5

ITEC A213	Millwright Level V	5
Total		**25**

A minimum of 25 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with an Occupational Endorsement in Millwright will be able to:

- Perform job related tasks following industry-recognized safety practices and techniques;
- Analyze, set-up, and operate mechanical equipment to perform efficiently and accurately;
- Demonstrate professional behaviors and attitudes when working alone or as a member of a team; and
- Clearly communicate technical information and data verbally, in writing, mathematically, and visually when required to complete job assignments.

Minor in National Defense, Strategic Studies and Leadership: Air Force Emphasis

Students majoring in another subject who wish to minor in national defense, strategic studies, and leadership, Air Force focus, must complete the following requirements. Students must earn at least 6 credits in residence in this field. They must also earn a UAA cumulative GPA of at least 2.00 (C). Students must complete the program's upper-division coursework in its entirety. Students must declare this minor using the declaration of a minor form (https://www.uaa.alaska.edu/students/registrar/degree-services/declaration-minor-form-login.cshtml/) no later than the deadline to submit an application for graduation.

Code	Title	Credits
Term 1		
AIRS A301	Leading People and Effective Communication I	3
AIRS A150	US Air Force Leadership Laboratory	1
Term 2		
AIRS A302	Leading People and Effective Communication II	3
AIRS A150	US Air Force Leadership Laboratory	1
Term 3		
AIRS A401	National Security, Leadership Responsibilities, and Commissioning Preparation I	3
AIRS A150	US Air Force Leadership Laboratory	1
Term 4		
AIRS A402	National Security, Leadership Responsibilities, and Commissioning Preparation II	3
AIRS A150	US Air Force Leadership Laboratory	1
May be taken during any term		
AIRS A201	Team and Leadership Fundamentals I	1
AIRS A202	Team and Leadership Fundamentals II	1
Total		**18**

A minimum of 18 credits is required for the minor, of which 12 credits must be upper-division.

Minor in National Defense, Strategic Studies and Leadership: Army Emphasis

Contracted cadets majoring in another subject who wish to minor in national defense, strategic studies and leadership, Army emphasis, must complete the following requirements. Students must earn at least 3 credits in residence in this field. They must also earn a UAA cumulative GPA of at least 3.00 (B). Students must declare this minor using the declaration of a minor form (https://www.uaa.alaska.edu/records/degree_Services/declaration_minor_form_login.cfm) no later than the deadline to submit an application for graduation.

Code	Title	Credits
Term 1		
MILS A150	Army ROTC Leadership and Physical Training Laboratory	1
MILS A301	Adaptive Team Leadership	3
Term 2		
MILS A150	Army ROTC Leadership and Physical Training Laboratory	1
MILS A302	Applied Team Leadership	3
Term 3		
MILS A150	Army ROTC Leadership and Physical Training Laboratory	1
MILS A401	Adaptive Leadership	3
Term 4		
MILS A150	Army ROTC Leadership and Physical Training Laboratory	1
MILS A402	Leadership in a Complex World	3
May be taken during any term		
MILS A450	History of the United States Army	3
Total		**19**

A minimum of 19 credits is required for the minor, of which 12 credits must be upper-division.

Occupational Endorsement Certificate in Nondestructive Testing Technology

Admission to this program is currently suspended. Contact the Community & Technical College for more information.

Associate of Applied Science in Occupational Safety and Health

The Associate of Applied Science (AAS) in Occupational Safety and Health prepares students for employment as safety professionals in a variety of industries, including construction, petroleum, mining, tourism, and government agencies.

Program coursework includes hazardous materials, safety training methods, ergonomics, industrial hygiene, injury prevention, epidemiology, Occupational Safety and Health Administration (OSHA) standards, and safety program management and record keeping.

Admission Requirements

- Complete the Admission Requirements for Associate Degrees. (p. 46)

Graduation Requirements

- Complete the General University Requirements for Associate Degrees (p. 441).
- Complete the General Education Requirements for Associate of Applied Science Degrees (p. 441).
- For the Quantitative Skills requirement choose MATH A151 or higher.
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
Core Courses		
BIOL A100	Human Biology	3-4
or BIOL A102	Introductory Biology	
or BIOL A111 & A111L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Lab	
FIRE A105	Fire Prevention	3
MATH A151	College Algebra for Calculus (or higher MATH course from the Quantitative Skills GER list)	4
OSH A101	Introduction to Occupational Safety and Health	3
OSH A108	Industrial Safety (Or advisor approved course)	3
OSH A111	Occupational Safety Training Needs and Methods	3
OSH A120	Safety Program Management and Recordkeeping	3
OSH A160	Fundamentals of Industrial Hygiene	3
OSH A201	Hazard Control: Inspections, Audits and Investigations	3
OSH A211	Safety Management Systems	4
OSH A215	Environmental Issues for Safety and Health Professionals	3
OSH A230	Principles of Ergonomics	3
OSH A240	Workplace Monitoring: Instrumentation and Calibration	3
OSH A250	Hazardous Materials Operations	3
Electives		
Complete 3 credits from the following:		3
OSH A390	Selected Topics in Occupational Safety and Health	
TECH A295	Technical Internship	
Advisor approved course		
Total		**47-48**

A minimum of 60 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with an Associate of Applied Science in Occupational Safety and Health will be able to:

- Recognize, evaluate and recommend control strategies for common hazardous conditions and unsafe work practices.
- Describe the fundamental aspects of occupational safety: industrial hygiene, environmental science, fire science, hazardous materials and ergonomics.
- Develop safety, health and environmental programs.
- Apply adult learning theory to safety training methodologies.
- Identify and apply applicable safety and health standards.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not

indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.

- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
MATH A105	Intermediate Algebra	4
OSH A101	Introduction to Occupational Safety and Health	3
OSH A108	Industrial Safety	3
OSH A120	Safety Program Management and Recordkeeping	3
WRTG A111	Writing Across Contexts	3
	Credits	**16**
Spring		
BIOL A111 & A111L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Lab	4
COMM A111	Fundamentals of Oral Communication	3
MATH A151	College Algebra for Calculus	4
OSH A201	Hazard Control: Inspections, Audits and Investigations	3
WRTG A212	Writing and the Professions	3
	Credits	**17**
Second Year		
Fall		
FIRE A105	Fire Prevention	3
OSH A111	Occupational Safety Training Needs and Methods	3
OSH A160	Fundamentals of Industrial Hygiene	3
OSH A230	Principles of Ergonomics	3
OSH A250	Hazardous Materials Operations	3
	Credits	**15**
Spring		
OSH A211	Safety Management Systems	4
OSH A215	Environmental Issues for Safety and Health Professionals	3
OSH A240	Workplace Monitoring: Instrumentation and Calibration	3
OSH A390 or TECH A295	Selected Topics in Occupational Safety and Health [1] or Technical Internship	3
	Credits	**13**
	Total Credits	**61**

[1] *Or advisor approved course*

Bachelor of Science in Occupational Safety and Health

Admission Requirements

Complete the Application and Admission Requirements for Baccalaureate Programs (p. 46).

Advising

Meet with an advisor to complete the advising interview checklist. Students must contact the OSH department at (907) 786-6423 prior to registering for OSH courses.

Graduation Requirements

- Satisfy the General University Requirements for Baccalaureate Degrees (p. 442).
- Complete the General Education Requirements for Baccalaureate Degrees (p. 443).
- In order to receive the Bachelor of Science in Occupational Safety and Health, students must achieve a minimum grade of C in all courses required for the degree.
- Complete the following major requirements:

Code	Title	Credits
Foundational Courses		
AKNS A201	Alaska Native Perspectives [1]	3
Complete one of the following:		3-4
BIOL A100	Human Biology	
BIOL A102	Introductory Biology [1]	
BIOL A111 & A111L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Lab [1]	
CHEM A103	Introduction to General Chemistry [1]	3
CHEM A103L	Introduction to General Chemistry Laboratory [1]	1
JPC A362	Principles of Strategic Communications	3
JPC A104	Media Literacy [1]	3
MATH A151	College Algebra for Calculus [1]	4
WRTG A212	Writing and the Professions	3
Complete one of the following:		3

PHIL A303	Environmental Ethics	
PHIL A305	Professional Ethics [1]	
PHYS A123	College Physics I [1]	3
Complete one of the following		3
PSY A111	Introduction to Psychology [1]	
PSY A200	Introduction to Behavior Analysis [1]	
STAT A200	Elementary Statistics [1]	3
TECH A305	Applied Leadership for Technicians	3
Core Courses		
FIRE A105	Fire Prevention	3
OSH A101	Introduction to Occupational Safety and Health	3
OSH A108	Industrial Safety	3
OSH A111	Occupational Safety Training Needs and Methods	3
OSH A120	Safety Program Management and Recordkeeping	3
OSH A160	Fundamentals of Industrial Hygiene	3
OSH A201	Hazard Control: Inspections, Audits and Investigations	3
OSH A211	Safety Management Systems	4
OSH A215	Environmental Issues for Safety and Health Professionals	3
OSH A230	Principles of Ergonomics	3
OSH A240	Workplace Monitoring: Instrumentation and Calibration	3
OSH A250	Hazardous Materials Operations	3
OSH A305	Incident Investigation and Analysis	3
OSH A310	Human Factors	3
OSH A360	Industrial Hygiene for the Safety Professional	3
OSH A375	Process Safety Management	3
OSH A405	Construction Industry Safety Management	3
OSH A420	Legal Aspects of Safety	3
OSH A450	Risk Management for Safety and Health	3
Complete 9 credits of electives		9
OSH A390	Selected Topics in Occupational Safety and Health	
OSH A495	Advanced Occupational Safety and Health Internship	
Capstone		
OSH A460	Economic Value of Safety	3
Total		**108-109**

[1] *May satisfy General Education Requirements (GERs).*

A total of 120 credits is required for the degree, of which 39 must be upper-division.

Program Student Learning Outcomes

- Anticipate, recognize, evaluate, and develop control strategies for hazardous conditions and unsafe work practices.
- Apply the fundamental aspects of occupational safety: industrial hygiene, environmental science, fire science, hazardous materials, ergonomics and human factors.
- Design, implement, and evaluate safety, health, and environmental programs.
- Apply adult learning theory to the design and delivery of safety training programs.
- Interpret and apply applicable standards, regulations, and codes.
- Conduct incident/accident investigations and analyses.
- Evaluate and apply business and risk management concepts.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

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- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
OSH A101	Introduction to Occupational Safety and Health	3
OSH A108	Industrial Safety	3
OSH A120	Safety Program Management and Recordkeeping	3
MATH A105	Intermediate Algebra	4
WRTG A111	Writing Across Contexts	3
	Credits	**16**
Spring		
BIOL A100 or BIOL A102 or BIOL A111/A111L	Human Biology or Introductory Biology or Human Anatomy and Physiology I	3
COMM A111	Fundamentals of Oral Communication	3
MATH A151	College Algebra for Calculus	4
OSH A201	Hazard Control: Inspections, Audits and Investigations	3
WRTG A212	Writing and the Professions	3
	Credits	**16**
Second Year		
Fall		
FIRE A105	Fire Prevention	3
OSH A111	Occupational Safety Training Needs and Methods	3
OSH A160	Fundamentals of Industrial Hygiene	3
OSH A230	Principles of Ergonomics	3
OSH A250	Hazardous Materials Operations	3
	Credits	**15**
Spring		
CHEM A103 & A103L	Introduction to General Chemistry and Introduction to General Chemistry Laboratory	4
OSH A211	Safety Management Systems	4
OSH A215	Environmental Issues for Safety and Health Professionals	3
OSH A240	Workplace Monitoring: Instrumentation and Calibration	3
OSH A390	Selected Topics in Occupational Safety and Health	3
	Credits	**17**
Third Year		
Fall		
AKNS A201	Alaska Native Perspectives	3
JPC A104	Media Literacy	3
OSH A305	Incident Investigation and Analysis	3
PHYS A123	College Physics I	3
PSY A111 or PSY A200	Introduction to Psychology or Introduction to Behavior Analysis	3
	Credits	**15**
Spring		
OSH A310	Human Factors	3
OSH A360	Industrial Hygiene for the Safety Professional	3
PHIL A305	Professional Ethics	3
STAT A200	Elementary Statistics	3
TECH A305	Applied Leadership for Technicians	3
	Credits	**15**
Fourth Year		
Fall		
JPC A362	Principles of Strategic Communications	3
OSH A390	Selected Topics in Occupational Safety and Health	3
OSH A405	Construction Industry Safety Management	3
OSH A450	Risk Management for Safety and Health	3
GER Fine Arts		3
	Credits	**15**
Spring		
OSH A375	Process Safety Management	3
OSH A420	Legal Aspects of Safety	3
OSH A460	Economic Value of Safety	3
OSH A495	Advanced Occupational Safety and Health Internship	3
	Credits	**12**
	Total Credits	**121**

Minor in Occupational Safety and Health

The Minor in Occupational Safety and Health prepares students to fulfill those regulatory and legal supervisory responsibilities to implement safety and incident prevention programs and activities necessary to protect people, operational processes, and the environment across the spectrum of industries and work functions.

Students majoring in another discipline who wish to minor in occupational safety and health must complete the following requirements with a minimum grade of C:

Code	Title	Credits
OSH A101	Introduction to Occupational Safety and Health	3
OSH A108	Industrial Safety	3
OSH A201	Hazard Control: Inspections, Audits and Investigations	3
Complete a minimum of 9 additional credits from OSH courses, to include 6 upper division credits		9
Total		**18**

A minimum of 18 credits is required for the minor, of which 6 credits must be upper-division.

Occupational Endorsement Certificate in Petroleum Production

This program is delivered only through Kenai Peninsula College.

The Occupational Endorsement Certificate in Petroleum Production prepares students for work as an entry-level petroleum production operator.

Admission Requirements

- Complete the Admission Requirements for Occupational Endorsement Certificates (p. 46).

Special Considerations

PETR A155 and PRT A260 courses are presented "on-line" but include four on-site 8-hour hands-on sessions of practical instruction each at the KPC Kenai River Campus in Soldotna, AK.

Graduation Requirements

- Complete the General University Requirements for Occupational Endorsement Certificates (p. 440).
- Complete the following major requirements:

Code	Title	Credits
PETR A155	Process Industry Basics	3
PRT A110	Introduction to Process Safety, Health and Environmental Awareness	3
PRT A160	Oil and Gas Exploration and Production I	3
PRT A260	Oil and Gas Exploration and Production II	3
Total		**12**

A minimum of 12 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with an Occupational Endorsement Certificate in Petroleum Production will be able to:

- Describe the petroleum production operator’s duties.
- Describe the operation of various types of oil & gas well production methods.
- Identify federal agencies, state agencies, and their applicable regulations that impact safety, health, and environment concerns in petroleum production operations.
- Identify various hand tools and their safe use in petroleum production operations.
- Identify various symbols, graphics, and components used in petroleum production, Piping, and Instrumentation Diagrams (P&ID) and Process Flow Diagrams (PFD).

Undergraduate Certificate in Petroleum Technology

This program is delivered only through Kenai Peninsula College.

Admission Requirements

Complete the Application and Admission Requirements for Undergraduate Certificate Programs (p. 46).

Advising

Advising for this program is available from the petroleum technology faculty at Kenai Peninsula College. Please call (907) 262-0330 or (877) 262-0330 for more information.

Graduation Requirements

- Complete the General University Requirements for Undergraduate Certificates (p. 441).
- Complete the program requirements below:

Code	Title	Credits
WRTG A111	Writing Across Contexts	3
or WRTG A110	Introduction to College Writing	
MATH A105	Intermediate Algebra	4
PRT A101	Introduction to Process Technology	3
PRT A130 & A130L	Process Technology I: Equipment and Process Technology I: Equipment Lab	4
PRT A140	Industrial Process Instrumentation I	3
PRT A144	Industrial Process Instrumentation II	3
PRT A160	Oil and Gas Exploration and Production I	3
PRT A230	Process Technology II: Systems	4
PRT A250	Process Troubleshooting	3
Complete 4 credits of the following:		4
PRT A231 & A231L	Process Technology III: Operations and Process Technology III: Operations Lab	
ET A101 & A101L	Basic Electronics: DC Circuits and Basic Electronics: DC Circuits Lab	
ET A126 & A126L	Digital Electronics and Digital Electronics Lab	
Total		**34**

A total of 34 credits is required for the certificate.

Program Student Learning Outcomes

The graduates of the UAA Petroleum Technology program will have the ability to:

- Identify various process technology industries.
- Identify federal and state agencies and regulations that impact process industries.
- Calculate various process equipment theory results.
- Explain various process instrumentation theories.
- Identify various process instrumentation and the uses of the instrumentation in control loops.
- Sketch accurate piping and instrumentation diagrams (P&ID's).
- Develop and compose process procedures.
- Explain Outside Operator and Board Operator responsibilities and duties.
- Monitor a process, troubleshoot problems, and respond appropriately.
- Explain quality concepts, tools, and methods used in the process industries.

Associate of Applied Science in Process Technology

This program is delivered only through Kenai-Peninsula College.

The Associate of Applied Science (AAS) in Process Technology prepares students for entry-level employment as operations technicians in a variety of industries, including petroleum, mining, power generation, chemical manufacturing, renewable energy, and food processing.

Program coursework includes process equipment, basic instrumentation, operating systems, process facility operations, safety and environmental, plus hands-on operating experience.

The AAS in Process Technology is one of a small group of North American Process Technology Alliance (NAPTA) endorsed process technology programs nationwide.

The AAS in Process Technology constitutes the first two years of the Bachelor of Science (BS) in Applied Technologies Leadership.

Admission Requirements

- Complete the Admission Requirements for Associate Degrees. (p. 46)

Graduation Requirements

- Complete the General University Requirements for Associate Degrees (p. 441).
- Complete the General Education Requirements for Associate of Applied Science Degrees (p. 441).
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
Core Courses		
BADA A105	Introduction to Personal Computers and Application Software	3
or BADA A110	Computer Concepts in Business	
CHEM A103 & A103L	Introduction to General Chemistry and Introduction to General Chemistry Laboratory	4
PHYS A115 & A115L	Physical Science and Physical Science Lab	4
or PHYS A123 & A123L	College Physics I and College Physics I Laboratory	
PRT A101	Introduction to Process Technology	3
PRT A110	Introduction to Process Safety, Health and Environmental Awareness	3
PRT A130 & A130L	Process Technology I: Equipment and Process Technology I: Equipment Lab	4
PRT A140	Industrial Process Instrumentation I	3
PRT A144	Industrial Process Instrumentation II	3
PRT A230	Process Technology II: Systems	4
PRT A231 & A231L	Process Technology III: Operations and Process Technology III: Operations Lab	4
PRT A250	Process Troubleshooting	3
PRT A255	Quality Concepts for the Process Industry	1
Electives		
Complete 9 credits of advisor-approved electives, which may include courses from:		9
Electronics Technology (ET)		
Industrial Process Instrumentation (PETR, ET, PRT)		
Occupational Safety and Health (OSH)		
Process Technology (PRT)		
Technology Internship (TECH)		
Total		**48**

A minimum of 60 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with an Associate of Applied Science in Process Technology will be able to:

- Identify process technology industries.
- Identify federal and state agencies and regulations that impact process industries.
- Calculate various process equipment theory results.
- Explain various process instrumentation theories.
- Explain various process instrumentation and the uses of the instrumentation in control loops.
- Sketch accurate piping and instrument diagrams (P&IDs).
- Compose process procedures.
- Explain Outside Operator and Board Operator responsibilities and duties.
- Monitor a process, troubleshoot problems, and respond appropriately.
- Explain quality concepts, tools, and methods used in the process industries.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
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- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year		
Fall		**Credits**
MATH A105	Intermediate Algebra	4
PHYS A115 & A115L	Physical Science and Physical Science Lab	4
PRT A101	Introduction to Process Technology	3
PRT A110	Introduction to Process Safety, Health and Environmental Awareness	3
WRTG A111	Writing Across Contexts	3
	Credits	**17**
Spring		
BADA A105 or BADA A110	Introduction to Personal Computers and Application Software or Computer Concepts in Business	3
PRT A130 & A130L	Process Technology I: Equipment and Process Technology I: Equipment Lab	4
PRT A140	Industrial Process Instrumentation I	3
WRTG A212	Writing and the Professions	3
Program Elective	(Advisor-approved Technical)	3
	Credits	**16**
Second Year		
Fall		
COMM A111	Fundamentals of Oral Communication	3
PRT A144	Industrial Process Instrumentation II	3
PRT A230	Process Technology II: Systems	4
PRT A255	Quality Concepts for the Process Industry	1
Program Elective	(Advisor-approved Technical)	3
	Credits	**14**
Spring		
CHEM A103 & A103L	Introduction to General Chemistry and Introduction to General Chemistry Laboratory	4
PRT A231 & A231L	Process Technology III: Operations and Process Technology III: Operations Lab	4
PRT A250	Process Troubleshooting	3
Program Elective	(Advisor-approved Technical)	3
	Credits	**14**
	Total Credits	**61**

Associate of Applied Science in Professional Piloting

The Associate of Applied Science (AAS) in Professional Piloting prepares students with knowledge of aerodynamics, aircraft engine and system operation, aircraft operating limitations and performance, weather and atmospheric processes, as well as navigation and communication methods. This degree program prepares graduates for careers in professional flying. The Federal Aviation Administration (FAA) has authorized UAA to certify its professional piloting graduates as eligible for an Airline Transport Pilot certificate with Reduced Aeronautical Experience (R-ATP).

Admission Requirements

- Complete the Admission Requirements for Associate Degrees (p. 46).
- It is recommended that students planning to enroll in the AAS in Professional Piloting obtain an FAA second-class airman medical certificate (Federal Aviation Regulation Part 67, Subpart C) to assure they meet the medical qualifications to complete the program.

Special Considerations

- Flight training costs are not included in university tuition. Students must meet with the Flight Operations Scheduling Officer to obtain department approval to register for all flight courses. Flight training costs are based on hourly rates established for each aircraft type flown. Students will be provided with current hourly flight costs and program cost estimates when they meet with the department's academic advisor.
- Students must possess an FAA Part 67 second-class airman medical certificate before beginning any flight training.
- U.S. citizens must present verification of U.S. citizenship before beginning any flight or airplane simulator training. The following three methods are acceptable: an unexpired U.S. passport, an original or raised seal official copy of birth certificate, or an original or raised seal official copy of Certificate of Naturalization. Non-U.S. citizens must register and receive approval from the Transportation Security Administration (TSA) before beginning any flight or simulator training. Please contact the Aviation Technology Division (ATD) for information.
- Students must complete all ground and flight portions of UAA's instrument and commercial training course outlines to be eligible for graduation with the professional piloting concentration. Students are responsible to work with their advisor to also ensure their degree plan includes the minimum 30 FAA-approved credits required for the R-ATP.
- Military pilots may petition to have appropriate curriculum requirements awarded based on FAA pilot certificates held on a case-by-case basis.
- Students in this associate degree are encouraged to have an additional focus of study outside of aviation.
- Once enrolled in any flight training course (courses where the student is receiving flight training) at UAA, students are required to complete the course requirements within 12 months from the date of registration. Failure to do so will be considered unsatisfactory progress and will result in a failing (F) grade in that registered flight course. If a student receives a failing grade in a flight training course, the course may be repeated.

Graduation Requirements

- Complete the General University Requirements for Associate Degrees (p. 441).
- Complete the General Education Requirements for Associate of Applied Science Degrees. (p. 441)
  - For the Quantitative Skills requirement choose MATH A151 or higher.
- Complete the following major requirements:

Code	Title	Credits
ATA A102	Introduction to Aviation Technology	3
ATA A133	Aviation Law and Regulations	3
ATA A233	Aviation Safety	3
ATA A331	Human Factors in Aviation	3
ATP A100	Private Pilot Ground School	3
ATP A101	Pre-Professional Flying	2
ATP A116	Instrument Ground School	3
ATP A126	Instrument Flying	2
ATP A200	Commercial Ground School	3
ATP A218	Commercial Flying I	1.5
ATP A219	Commercial Flying II	1.5
ATP A220	Commercial Flying III	2
ATP A235	Elements of Weather	3
ATP A305	Airplane Multiengine Land Rating	2
PHYS A123	College Physics I	3
PHYS A123L	College Physics I Laboratory	1
Total		**39**

A minimum of 60 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with an Associate of Applied Science in Professional Piloting will be able to:

- Demonstrate proficiency in instrument pilot and commercial pilot knowledge and flight skills
- Demonstrate knowledge of aviation law and regulations, and of the legal issues affecting the aviation industry
- Demonstrate knowledge of the issues affecting aviation safety and safety management
- Demonstrate knowledge of aviation weather and of aviation weather services.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations

from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

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First Year		
Fall		**Credits**
ATA A102	Introduction to Aviation Technology	3
ATP A100	Private Pilot Ground School	3
MATH A151	College Algebra for Calculus	4
WRTG A111	Writing Across Contexts	3
	Credits	**13**
Spring		
ATA A133	Aviation Law and Regulations	3
ATA A233	Aviation Safety	3
ATP A101	Pre-Professional Flying	2
ATP A116	Instrument Ground School	3
WRTG A212	Writing and the Professions	3
	Credits	**14**
Summer		
ATP A126	Instrument Flying	2
	Credits	**2**
Second Year		
Fall		
ATA A331	Human Factors in Aviation	3
ATP A235	Elements of Weather	3
PHYS A123 & A123L	College Physics I and College Physics I Laboratory	4
GER Oral Communication Skills		3
	Credits	**13**
Spring		
ATP A200	Commercial Ground School	3
ATP A218	Commercial Flying I [1]	1.5
ATP A219	Commercial Flying II [1]	1.5
ATP A220	Commercial Flying III [1]	2
ATP A300	CFI Ground School (or Elective)	3
Elective		3
	Credits	**14**
Summer		
ATP A301	CFI Flying (or Elective)	2
ATP A305	Airplane Multiengine Land Rating	2
Continue Flight not completed		
	Credits	**4**
	Total Credits	**60**

[1] *ATP A218, ATP A219, and ATP A220 are open-entry/open-exit and may be completed in the same semester. Students must complete ATP A218 to enroll in ATP A219, and must complete ATP 219 to enroll in ATP A220.*

Occupational Endorsement Certificate in Refrigeration and Heating

This program is delivered only through Matanuska-Susitna College.

The Occupational Endorsement Certificate (OEC) in Refrigeration and Heating prepares students with the technical skills required to install, diagnose, and repair modern commercial and residential heating, ventilation, air-conditioning, and refrigeration (HVAC/R) systems.

Admission Requirements

- Complete the Admission Requirements for Occupational Endorsement Certificates (p. 46).

Graduation Requirements

- Complete the General University Requirements for Occupational Endorsement Certificates (p. 440).
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
RH A101	Refrigeration and Air Conditioning I	4
RH A105	Electrical Circuits for Refrigeration and Heating	3
RH A107	Fundamentals of Heating	4
RH A109	HVAC/R Codes	1
RH A122	Refrigeration and Air Conditioning II	4
RH A124	HVAC/R Distribution Systems	4
RH A126	HVAC/R Control Systems	3
RH A132	HVAC/R Troubleshooting Essentials	1
Total		**24**

A minimum of 24 credits are required for the degree.

Program Student Learning Outcomes

Students graduating with an Occupational Endorsement Certificate in Refrigeration & Heating will be able to:

- Apply the fundamental laws of physics related to the Heating, Ventilation, Air Conditioning, and Refrigeration (HVAC/R) industry.
- Understand and describe the function of individual components that make up HVAC/R systems.
- Work safely with tools, torches, electricity, refrigerants, heating fuels, and other equipment and material associated with HVAC/R work.
- Follow work practices that are environmentally responsible.
- Systematically troubleshoot HVAC/R systems.
- Apply municipal, state, and national mechanical codes to decisions involving the design, installation, operation, and maintenance of HVAC/R systems.

Associate of Applied Science in Refrigeration and Heating Technology

Admission to this program is temporarily suspended. Contact the Community and Technical College for more information.

Undergraduate Certificate in Refrigeration and Heating Technology

Admission to this program is temporarily suspended. Contact the Community and Technical College for more information.

Occupational Endorsement Certificate in Remote Pilot Operations

The Occupational Endorsement Certificate (OEC) in Remote Pilot Operations prepares students for entry-level remote pilot positions within the drone industry. Students can advance in career opportunities because of their formal training and education.

Career possibilities available to graduates of the Remote Pilot Operations program include positions with Drone Operators, the Department of Transportation, State of Alaska, various Geographic Information System (GIS) and construction planning companies.

Licensure and Certification

The FAA Part 107 Certificate issued by the FAA will be required in this field. These courses will prepare the student to obtain this license as well as becoming proficient in flying drones.

Admission Requirements

- Complete the Admission Requirements for Occupational Endorsement Certificates (p. 46).

Graduation Requirements

- Complete the General University Requirements for Occupational Endorsement Certificates (p. 440).
- Complete the following major requirements:

Code	Title	Credits
ATP A107	Remote Pilot Aircraft System Part 107	1
ATP A207	Remotely Piloted Aircraft Systems Applications	1
ATP A208	Remotely Piloted Aircraft Systems Flight Operations	1
6 elective credits from any ATA or ATP course		6
Total		**9**

A minimum of 9 credits is required for the certificate.

Program Student Learning Outcomes

Students graduating with an Occupational Endorsement Certificate in Remote Pilot Operations will be able to:

- **Demonstrate Proficiency in Drone Flight Operations and Maneuvering**
  Students will develop and demonstrate the skills necessary to operate drones safely and effectively in various environments. They will master standard maneuvers, flight planning, and control techniques, adapting to both manual and autonomous flight modes to ensure precise and stable drone operations under diverse conditions.
- **Apply Knowledge of FAA Regulations and Safety Protocols**

Students will understand and comply with FAA Part 107 regulations, including airspace classifications, weather considerations, and pre-flight planning requirements. They will apply these regulations to ensure legal and safe drone operation, including emergency protocols and best practices for mitigating potential risks.

- **Utilize Data Collection and Processing Techniques for Industry Applications**
  Students will use drones to collect high-quality aerial data for various applications, such as surveying, mapping, environmental monitoring, and infrastructure inspection. They will also develop skills in processing and analyzing this data using relevant software, producing accurate and actionable insights tailored to industry needs.
- **Demonstrate Proficiency in Drone Maintenance and Troubleshooting**
  Students will acquire technical skills in routine maintenance, troubleshooting, and repair of drone systems, understanding the critical components and functions of drone hardware and software. They will learn to identify and resolve common issues to ensure drones operate efficiently and safely over time.
- **Execute Ethical and Professional Decision-Making in Drone Operations**
  Students will learn the importance of ethical and responsible drone usage, including considerations of privacy, environmental impact, and public safety. They will demonstrate sound judgment in assessing and responding to operational challenges, making decisions that prioritize safety, ethical standards, and adherence to industry and regulatory guidelines.

Occupational Endorsement Certificate in Residential and Light Commercial Heating and Ventilation

Admission to this program is temporarily suspended. Contact the Community and Technical College for more information.

Occupational Endorsement Certificate in Safety Specialist

The Occupational Endorsement Certificate in Safety Specialist provides graduates with the prerequisite skills and knowledge needed to pursue opportunities with local employers within the field of occupational safety and incident prevention.

Admission Requirements

- Complete the Admission Requirements for Occupational Endorsement Certificates (p. 46).

Graduation Requirements

- Complete the General University Requirements for Occupational Endorsement Certificates (p. 440).
- Complete the following major requirements with a minimum grade of C**.**

Code	Title	Credits
OSH A101	Introduction to Occupational Safety and Health	3
OSH A108	Industrial Safety	3
OSH A120	Safety Program Management and Recordkeeping	3
OSH A201	Hazard Control: Inspections, Audits and Investigations	3
OSH A211	Safety Management Systems	4
Total		**16**

A minimum of 16 credits is required for the certificate.

Program Student Learning Outcomes

- Identify and apply applicable standards, regulations, and codes.
- Recognize, evaluate, and recommend control strategies for common hazardous conditions and unsafe work practices.
- Describe basic elements of risk management, Workers' Compensation losses and risk assessment.
- Implement oral, written and non-verbal communication strategies and techniques to effectively communicate with a multicultural workforce.
- Develop and implement an effective Injury and Illness Prevention Program (IIPP).
- Describe basic accident/incident investigation procedures and analysis techniques.
- Describe basic inspection techniques and procedures.

Associate of Applied Science in Technology

The Associate of Applied Science (AAS) in Technology prepares students for entry-level work in a variety of specialized technical fields.

Admission Requirements

- Complete the Admission Requirements for Associate Degrees (p. 46).

Graduation Requirements

- Complete the General University Requirements for Associate Degrees (p. 441).
- Complete the General Education Requirements for Associate of Applied Science Degrees (p. 441).
- Complete two advisor-approved Occupational Endorsement Certificates and/or Undergraduate Certificates. (p. 432)

A minimum of 60 credits is required for the degree.

Program Student Learning Outcomes

Student graduating with an Associate of Applied Science in Technology will be able to:

- Perform the specialized skills that were developed in the OEC course work
- Be proficient and employable in at least one technical/vocational field of study.

Occupational Endorsement Certificate in Valve Repair and Maintenance

This program is delivered only through Kenai Peninsula College.

The Occupation Endorsement Certificate in Valve Repair and Maintenance prepares students for work as an entry-level valve technician.

Admission Requirements

- Complete the Admission Requirements for Occupational Endorsement Certificate. (p. 46)

Graduation Requirements

- Complete the General University Requirements for Occupational Endorsement Certificates. (p. 440)
- Complete the following major requirements:

Code	Title	Credits
PETR A130	Remotely Actuated Valves [1]	4
PETR A131	Mechanically Actuated Valves [2]	2
PETR A155	Process Industry Basics [3]	3
PRT A140	Industrial Process Instrumentation I	3
Total		**12**

1. *PETR A130 presented "online" but includes five on-site 8-hour hands-on sessions of practical instruction.*
2. *PETR A131 presented "online" but includes two on-site 8-hour hands-on sessions of practical instruction.*
3. *PETR A155 presented "online" but includes four on-site 8-hour hands-on sessions of practical instruction.*

A minimum of 12 credits is required for the certificate.

Program Student Learning Outcomes

Students graduating with an Occupational Endorsement Certificate in Valve Installation and Maintenance will be able to:

- Describe general troubleshooting techniques and repair procedures for remotely actuated valves.
- Describe general troubleshooting techniques and repair procedures for mechanically actuated valves.
- Describe alignment techniques for remotely actuated valves.
- Describe negative feedback control of a remotely actuated valve in a closed loop control system.
- Identify various hand tools and their safe use in valve maintenance and repair procedures.

Occupational Endorsement Certificate in Veterinary Assisting

This program is delivered only through Matanuska-Susitna College.

A veterinary assistant plays a vital role within the veterinary profession. In the Veterinary Assisting Occupational Endorsement Certificate, students learn how to assist and support the veterinarian and the veterinary technician in their daily tasks. Students will learn the fundamentals required for the care, treatment and management of both the animals as patients and people as clients. Students learn the fundamentals of good customer service, communication skills and the essentials of clerical responsibilities. They further learn the fundamental skills of proper handling, nutrition and nursing care for both large and small animals. Students are introduced to clinical patient management and laboratory procedures.

Admission Requirements

- Complete the Admission Requirements for Occupational Endorsement Certificates (p. 46).

Graduation Requirements

- Complete the General University Requirements for Occupational Endorsement Certificates (p. 440).
- Complete the following program requirements with a minimum grade of C:

Code	Title	Credits
VETT A101	Introduction to the Veterinary Profession	1
VETT A103	Veterinary Office Procedures	3
VETT A122	Basic Handling and Behavior: Small Animals	2
VETT A123	Basic Handling and Behavior: Large Animals	2
VETT A124	Introduction to Small Animals	3
VETT A125	Introduction to Large Animals	3
VETT A201	Veterinary Anatomy and Physiology	4
VETT A295	Veterinary Assistant Practicum	3
Total		**21**

A minimum of 21 credits is required for the degree.

Program Student Learning Outcomes

Upon completion of the occupational endorsement certificate, students will demonstrate:

- Knowledge of veterinary practice administration.
- Basic ability to handle and restrain large and small animals.
- Understanding of basic medical terminology.
- Introductory understanding of animal anatomy and physiology.
- Entry-level skills for laboratory procedures.
- Effective customer service and communication skills.

Associate of Applied Science in Veterinary Technology

This program is delivered only through Matanuska-Susitna College.

The Associate of Applied Science (AAS) in Veterinary Technology prepares students to be an integral member of a veterinary team, providing direct nursing care and fulfilling many other technician responsibilities. The program is designed to align with the educational guidelines of the American Veterinary Medical Association (AVMA).

Admission Requirements

- Complete the Admission Requirements for Associate Degrees (p. 46).
- A cumulative high school or postsecondary GPA of 2.5.
- 3 years of high school science and academically prepared for Anatomy and Physiology or Biology on a postsecondary level.
- Complete the Veterinary Technology program application which will be followed by an interview with the program admissions committee.

Special Considerations

Due to external regulations, cohort sizes are limited. For that reason, admission to the AAS in Veterinary Technology is selective and based on a ranking process and selection criteria.

Due to changing external regulations, it is important that students use the application form for the year they are applying.

- Upon acceptance to the program, the following will be required before beginning coursework:
  - Results of a national-level background check.
  - Documentation from a personal physician, Physician Assistant-Certified (PA-C), or Nurse Practitioner (NP) affirming the capability of performing the physical tasks required for the program as outlined in the AAS in Veterinary Technology Student Handbook.
  - Evidence of tetanus vaccination within the past 10 years (with booster required at the time of expiration) and rabies vaccination in accordance with the CDC guidelines for rabies prophylaxis for Risk Category 3 (https://www.cdc.gov/rabies/prevention/pre-exposure_vaccinations.html).
- The veterinary technology program admits students into a program cohort. Thus, a student must be readmitted if they leave the program for any reason.
- Further details regarding the selection process can be found in the AAS in the Veterinary Technology Student Handbook.

Graduation Requirements

- Complete the General University Requirements for Associate Degrees (p. 441).
- Complete the General Education Requirements for Associate of Applied Science Degrees (p. 441).
- Students are required to earn a minimum grade of B in VTCH A101 and earn a minimum grade of C in all remaining major requirements.
- Complete the following major requirements:

Code	Title	Credits
BIOL A100	Human Biology	3-6
or BIOL A102	Introductory Biology	
or BIOL A108	Principles and Methods in Biology	
or BIOL A111	Human Anatomy and Physiology I	
CHEM A103	Introduction to General Chemistry	3
or CHEM A105	General Chemistry I	
VTCH A101	Introduction to Veterinary Technology	1
VTCH A102	Veterinary Medical Terminology	1
VTCH A110	Medical Calculations for Veterinary Technicians	1
VTCH A111	Veterinary Office Procedures and Hospital Management	3
VTCH A112 & A112L	Veterinary Anatomy and Physiology and Veterinary Anatomy and Physiology Laboratory	4
VTCH A113 & A113L	Veterinary Nursing Skills and Veterinary Nursing Skills Laboratory	4
VTCH A120	Pharmacology for Veterinary Technicians	2
VTCH A121	Small Animal Medicine	3
VTCH A122 & A122L	Veterinary Surgical Nursing and Veterinary Surgical Nursing Laboratory	4
VTCH A130	Applied Small Animal Behavior I	1
VTCH A195	Clinical Externship I	3
VTCH A223 & A223L	Veterinary Microbiology and Parasitology and Veterinary Microbiology and Parasitology Laboratory	4
VTCH A231 & A231L	Veterinary Diagnostic Imaging and Dentistry and Veterinary Diagnostic Imaging and Dentistry Laboratory	3

VTCH A232 & A232L	Veterinary Anesthesia and Analgesia and Veterinary Anesthesia and Analgesia Laboratory	4
VTCH A233 & A233L	Veterinary Clinical Pathology and Veterinary Clinical Pathology Laboratory	4
VTCH A240	Applied Small Animal Behavior II	1
VTCH A241 & A241L	Laboratory and Exotic Animal Medicine and Laboratory and Exotic Animal Medicine Laboratory	3
VTCH A242 & A242L	Large Animal Medicine and Clinical Procedures and Large Animal Medicine and Clinical Procedures Laboratory	3
VTCH A243	Career Success for Veterinary Technicians	1
VTCH A244	Veterinary Technician National Exam Preparation	1
VTCH A295	Clinical Externship II	3
Total		**60-63**

A minimum of 72 credits is required for the degree.

Program Student Learning Outcomes

Students graduating with an Associate of Applied Science in Veterinary Technology will be able to:

- Apply critical thinking skills required to be effective members of a veterinary care team.
- Perform the technical skills required of a veterinary technician.
- Demonstrate the hands-on animal nursing skills required of a veterinary technician.
- Behave and communicate professionally as required to be successful as a veterinary technician.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (p. 27), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (p. 443). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year

Fall		**Credits**
BIOL A100 or BIOL A102 or BIOL A108 or BIOL A111	Human Biology or Introductory Biology or Principles and Methods in Biology or Human Anatomy and Physiology I	3-6
VTCH A101	Introduction to Veterinary Technology	1
VTCH A102	Veterinary Medical Terminology	1
WRTG A111	Writing Across Contexts	3
GER Oral Communication Skills		3
GER Quantitative Skills (MATH A121 or MATH A151)		3-4
	Credits	**14-18**
Spring		
CHEM A103 or CHEM A105	Introduction to General Chemistry or General Chemistry I	3
VTCH A110	Medical Calculations for Veterinary Technicians	1
VTCH A111	Veterinary Office Procedures and Hospital Management	3
VTCH A112	Veterinary Anatomy and Physiology	3
VTCH A112L	Veterinary Anatomy and Physiology Laboratory	1
VTCH A113	Veterinary Nursing Skills	3
VTCH A113L	Veterinary Nursing Skills Laboratory	1
	Credits	**15**
Second Year		
Fall		
VTCH A120	Pharmacology for Veterinary Technicians	2

VTCH A121	Small Animal Medicine	3
VTCH A122	Veterinary Surgical Nursing	3
VTCH A122L	Veterinary Surgical Nursing Laboratory	1
VTCH A223	Veterinary Microbiology and Parasitology	3
VTCH A223L	Veterinary Microbiology and Parasitology Laboratory	1
	Credits	**13**
Spring		
VTCH A130	Applied Small Animal Behavior I	1
VTCH A231	Veterinary Diagnostic Imaging and Dentistry	2
VTCH A231L	Veterinary Diagnostic Imaging and Dentistry Laboratory	1
VTCH A232	Veterinary Anesthesia and Analgesia	3
VTCH A232L	Veterinary Anesthesia and Analgesia Laboratory	1
VTCH A233	Veterinary Clinical Pathology	3
VTCH A233L	Veterinary Clinical Pathology Laboratory	1
GER Written Communication Skills (200-level)		3
	Credits	**15**
Summer		
VTCH A195	Clinical Externship I	3
	Credits	**3**
Third Year		
Fall		
VTCH A240	Applied Small Animal Behavior II	1
VTCH A241	Laboratory and Exotic Animal Medicine	2
VTCH A241L	Laboratory and Exotic Animal Medicine Laboratory	1
VTCH A242	Large Animal Medicine and Clinical Procedures	2
VTCH A242L	Large Animal Medicine and Clinical Procedures Laboratory	1
VTCH A243	Career Success for Veterinary Technicians	1
VTCH A244	Veterinary Technician National Exam Preparation	1
VTCH A295	Clinical Externship II	3
	Credits	**12**
	Total Credits	**72-76**

Occupational Endorsement Certificate in Web Engineering

Admission to this program is currently suspended. Contact the Community and Technical College for more information.

Occupational Endorsement Certificate in Welding

This Occupational Endorsement Certificate (OEC) provides the foundational skills required for entry into the welding industry. Courses focus on SMAW, GMAW, GTAW and FCAW in all positions. The courses are aligned with standards established by the American Welding Society (AWS) and American the American Society for Mechanical Engineers (ASME). Additionally, each course is embedded within the Associate of Applied Science option, so students can transfer each of these classes toward the Associate of Applied Science in Welding and Nondestructive Testing Technology.

Admission Requirements

- Complete the Admission Requirements for Occupational Endorsement Certificate Programs (p. 46).

Graduation Requirements

- Complete the General University Requirements for Occupational Endorsement Certificates (p. 440).
- Students must pass at least one industry-recognized welder certification.
- Pass one welding process qualification test.
- Complete the following major requirements:

Code	Title	Credits
WRTG A110	Introduction to College Writing	3
WELD A101	Introduction to Welding	3
or WELD A295	Welding & Nondestructive Testing Internship	
WELD A112	Shielded Metal Arc Welding (SMAW)	4
WELD A157	Technical Drawings for Welders	3
WELD A161	Gas Metal Arc Welding (GMAW)	3
WELD A162	Flux Cored Arc Welding (FCAW)	3
Total		**19**

A minimum of 19 credits is required for the degree.

Program Student Learning Outcomes

Upon completion of this OEC, students will demonstrate:

- Demonstrate hazard assessment and best safety practices
- Demonstrate entry-level technical skills in welding
- Demonstrate introductory knowledge of the interrelationship between metallurgy and welding
- Demonstrate effective oral and written communication
- Demonstrate application of mathematical formulas as applied in the welding field

Undergraduate Certificate in Welding

This program is delivered only through Kodiak college.

Students develop technical skills in various welding processes including shielded metal arc welding, gas metal arc welding, gas tungsten arc welding and plasma arc cutting. Students will also develop skills in metal fabrication and technical drawing. Upon completion of the

certificate, students are prepared for entry-level welding technician positions. (See learning outcomes for the Welding emphasis of the Associate of Applied Science in Technology (p. 726).)

Admission Requirements

- Complete the Admission Requirements for Undergraduate Certificate Programs (p. 46).

Graduation Requirements

- Complete the General University Requirements for Undergraduate Certificates (p. 441).
- Complete the following program requirements:

Code	Title	Credits
AET A101	Fundamentals of Construction Documents	3
or BADA A105	Introduction to Personal Computers and Application Software	
MATH A105	Intermediate Algebra (or any MATH course for which MATH A105 is a prerequisite)	4
OSH A101	Introduction to Occupational Safety and Health	3
PSY A153	Human Relations	3
or HUMS A155	Field Work and Human Service Practice	
TECH A295	Technical Internship	1
WELD A112	Shielded Metal Arc Welding (SMAW)	4
WELD A114	Welding of High Strength Steels	3
WELD A157	Technical Drawings for Welders	3
WELD A190	Selected Topics in Welding Technology	3
WRTG A110	Introduction to College Writing	3
Total		**30**

A minimum of 30 credits is required for the certificate.

Undergraduate Certificate in Welding Technology

This program is delivered only through Kenai Peninsula College.

The one-year Undergraduate Certificate in Welding Technology provides students with specific training for structural and pipe welding certification. Students gain comprehensive training in the latest welding technology, blueprint reading, layout and fabrication. Graduates of this program will be prepared for employment as structural or pipe welders, and will have a solid welding background for many mechanical trades.

Experienced welders have the option of bypassing the first semester courses by successfully completing written and practical examinations on first semester work.

Admission Requirements

- Complete the Admission Requirements for Undergraduate Certificates (p. 46).

Graduation Requirements

- Complete the General University Requirements for Undergraduate Certificates (p. 441).
- Pass a structural, GMAW or FCAW and a pipe qualification test.
- Complete the following major requirements with a minimum cumulative GPA of 2.00:

Code	Title	Credits
WRTG A111	Writing Across Contexts	3
or COMM A111	Fundamentals of Oral Communication	
or WRTG A110	Introduction to College Writing	
MATH A104	Technical Mathematics [1]	3
or MATH A105	Intermediate Algebra	
WELD A101	Introduction to Welding	3
WELD A157	Technical Drawings for Welders	3
WELD A112	Shielded Metal Arc Welding (SMAW)	4
WELD A114	Welding of High Strength Steels	3
WELD A121	Pipe Welding Vertical-Down SMAW	4
or WELD A122	Pipe Welding Vertical-Up SMAW	
WELD A161	Gas Metal Arc Welding (GMAW)	3
WELD A162	Flux Cored Arc Welding (FCAW)	3
WELD A174	Gas Tungsten Arc Welding (GTAW)	3
Total		**32**

[1] *Students may also fulfill this requirement by completing any MATH course for which MATH A105 is a prerequisite.*

A minimum of 32 credits is required for the certificate.

Program Student Learning Outcomes

Students graduating with an Undergraduate Certificate in Welding Technology will be able to:

- Demonstrate competence in the oxy-acetylene cutting process.
- Demonstrate competence in the preparation of steel-plate certified groove welds.
- Demonstrate competence in the welding of steel-plate all position groove welds.
- Demonstrate competence in the oxy-acetylene cutting process of steel pipe (both with freehand and machine cutting).
- Demonstrate competence in the preparation of steel pipe to be welded with the stick-electrode process for common sizes of pipe used in industry.

- Demonstrate competence in the welding of steel pipe per Procedure KPC-I for testing and welds common schedules and sizes of pipe used in industry.
- Complete structural and pipe certification national testing standards.

Occupational Endorsement Certificate in Advanced Welding

This Occupational Endorsement Certificate in Advanced Welding builds on foundational skills required for entry into the welding industry and prepares individuals for employment in pipe welding operations. Students gain knowledge of pipe fabrication, pipe welding and fitting processes. Courses in this certificate option are based on standards established by the American Welding Society and American Petroleum Institute.

Admission Requirements

Complete the Application and Admission Requirements for Occupational Endorsement Certificate Programs (p. 46).

Graduation Requirements

- Complete the General University Requirements for Occupational Endorsement Certificates (p. 440).
- Pass two separate welding process qualification tests.
- Complete the program requirements below.

Program Requirements

Code	Title	Credits
MATH A105	Intermediate Algebra	4
or any course for which MATH A105 is a prerequisite		
WELD A112	Shielded Metal Arc Welding (SMAW)	4
WELD A114	Welding of High Strength Steels	3
WELD A117	Pipe Fabrication	4
WELD A121	Pipe Welding Vertical-Down SMAW	4
WELD A174	Gas Tungsten Arc Welding (GTAW)	3
Total		**22**

A minimum of 22 credits is required for this certificate.

Program Student Learning Outcomes

Upon completion of this OEC, students will:

- Demonstrate hazard assessment and best safety practices.
- Demonstrate enhanced levels of technical skills in welding.
- Demonstrate intermediate knowledge of the interrelationship between metallurgy, welding and inspection processes.
- Demonstrate advanced forms of effective technical, oral, and written communication.
- Demonstrate application of advanced mathematical formulas and computations as applied in the welding and inspection fields.

University Honors College

Honors College *(*https://www.uaa.alaska.edu/academics/honors-college/*)*

The University Honors College offers customized pathways of coursework and experiential learning designed to meet students' unique academic goals. Because being an honors student is about a lot more than success in classes and a strong GPA, honors students choose a track in community engagement, global and multicultural studies, leadership, or research and creative activity. Our highly motivated associate and bachelor degree students enhance their education in a way that is meaningful to them by working with honors faculty to design a program of coursework, extracurricular activities, and immersion projects that enriches their college experience. Honors College graduates are deep thinkers, collaborative learners, and passionate individuals with advanced skills and experiences in their chosen fields of study, which will distinguish them from their peers when they enter the job market or seek postgraduate education.

Admission Requirements

Admission to the University Honors College is open to associate or baccalaureate degree-seeking students. Admission is separate from and in addition to general UAA admission requirements (p. 46). Students must declare an intention by submitting an application to the University Honors College. In general, students applying to the University Honors College from high school or transferring into the program with previous college-level work should have a minimum GPA of 3.00. However, the initial GPA entrance requirement should be interpreted as a general guideline, and not as an absolute criterion; all students who believe that they can succeed and benefit in an honors program are encouraged to apply. Students admitted to the University Honors College can change levels or tracks without reapplying for admission.

Once a student is accepted into the University Honors College, continuous progress toward completion is expected. Students will communicate regularly with track faculty from the Honors Academic Board about their programmatic progress.

Graduation Requirements

- Students must meet all General University Requirements (p. 442), General Education Requirements (GERs) (p. 443), school/college requirements, and major requirements as printed in the UAA Catalog.
- Students must earn a minimum GPA of 3.50 in their honors and major courses or earn a minimum cumulative GPA of 3.50.
- Students must complete the requirements for their university honors level designation (i.e., University Honors Associate or University Honors Scholar) as approved on their honors track plan.

Honors Levels and Requirements

University Honors Associate

Honors Associate is available to qualified students enrolled in UAA's associate programs.

- Students must earn a total of 12 honors units
  - At least 6 of which must be academic credits within their honors track plan
  - At least 3 of which must be experiential units in their honors track plan
- Students must complete an honors ePortfolio about their honors experience

University Honors Scholar

Honors Scholar is available to qualified students enrolled in UAA's baccalaureate programs.

- Students must earn a total of 24 honors units
  - At least 9 of which must be academic credits in their honors track plan
  - At least 6 of which must be experiential units in their honors track plan
- Students must complete an honors ePortfolio about their honors experience

Honors Tracks

Honors students select from one of the four following tracks in which to focus their Honors experience:

Community Engagement Track

The honors community engagement track prepares students to be engaged community members. Students will acquire the knowledge, skills, and abilities required to participate in civic life through the provision of service and assistance to their communities.

Those who successfully complete the community engagement track will:

- Demonstrate the skills, disposition, and knowledge necessary to engage with community issues through an informed, participatory lens.

Global and Multicultural Studies Track

The global and multicultural studies track prepares students for a career in public and professional service and community development, as well as fosters a lifelong commitment to be an engaged and responsible citizen mindful of the local, national, and global impact of the personal decisions they make.

Those who successfully complete the global and multicultural studies track will:

- Reflect and act upon global interdependencies between self, others, and community.

Leadership Track

Students who complete the leadership track will develop the knowledge, skills, and disposition required to function as a leader in any field. Participants in the leadership track will undertake a diverse course of studies and experiences designated within the track.

Those who successfully complete the leadership track will:

- Demonstrate the ability to develop and execute a vision that involves others to work collaboratively towards a shared goal.

Research and Creative Activity Track

The honors in research and creative activity track provides a pathway for students to demonstrate knowledge, skills, and confidence in conducting research or creative activity appropriate to their chosen discipline. Through participation in the track, students develop their skills under the guidance of one or more faculty mentors.

Those who successfully complete the research and creative activity track will:

- Demonstrate the ability to work through a research or creative process, which may include: conception or question formulation; background research; proposal; methodology; craft strategies; implementation; analysis; reflection; revision; exhibition/ presentation/performance; and dissemination.

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