This online version of the UAS academic catalog is the official catalog of the institution. Instead of a static document, this medium allows UAS to make changes as necessary. This will ensure that users have the most up-to-date information.

Changes to the academic catalog are subject to approval by the Provost and must be routed through the Provost’s Office.

All changes that are made during the course of the year will be posted on this page. Affected text (located in the body of the document) will be highlighted in yellow. Changes can be accessed two ways:

1. By clicking on the highlighted text, users will automatically be brought to the specific location on this page that explains the change, or

2. By clicking on a specific change listed on this page, users will automatically be brought to the page where the affected text is located.

Please report any problems with the online academic catalog to the Provost’s Office, (907) 796-6486.

**CHANGES 2007-2008 EDITION**

<table>
<thead>
<tr>
<th>Date</th>
<th>Page</th>
<th>Change</th>
</tr>
</thead>
</table>

Occupational Endorsements

Occupational endorsements are designed to give students occupational training in a specific field. These endorsements are under 30 credit hours and will be posted to student transcripts upon completion as approved by the academic department. The credit hours may be applied (where applicable) to degree programs. Resident credit requirement for Occupational Endorsement Certificates is 30% of the program.


Certificates

Certificates are programs that are designed to give intensive training in specific occupational areas. Skills gained are job-entry-level in nature, and course work completed may apply toward other degree programs. Students interested in a certificate should apply through the Office of Admissions.

**Minimum credit requirements:** 30 semester credits

**Resident credit requirements:** 9 semester credits

**Certificates Available:** Accounting Technician, Automotive Technology, Community Wellness Advocate, Computer Information and Office Systems, Drafting Technology, Early Childhood Education, Environmental Technology, Fisheries Technology, Healthcare Privacy, Health Information Management Coding Specialist, Law Enforcement, Outdoor Skills & Leadership, Pre-Nursing Qualifications, Pre-Radiologic Technology Qualifications, Residential Building Science, and Small Business Management.

Associate of Applied Science Degree (A.A.S.)

The Associate of Applied Science degree (A.A.S.) is a two-year degree awarded in a specific career or occupational field of expertise. See individual program requirements listed in the appropriate degree section of the catalog.

**Minimum credit requirements:** 60 semester credits

**Resident credit requirements:** 15 semester credits

**A.A.S. Degrees Available:** Apprenticeship Technology, Business Administration, Computer Information and Office Systems, Construction Technology, Early Childhood Education, Environmental Technology, Fisheries Technology, Health Information Management, Health Sciences, and Power Technology with an emphasis in Automotive, Diesel, or USCG Documented Marine Oiler.

Associate of Arts (A.A.)

The Associate of Arts degree provides students with a broad general education. It is also designed to be a transfer degree to bachelor degree programs. If a student intends to transfer to a bachelor degree program, he/she should consult the requirements for the advanced degree as some special general education and lower division courses are required in bachelor degrees.

**Minimum credit requirements:**
60 semester credits

**Special credit requirement:** 20 semester credits must be at the 200 level OR higher

**General Education requirements:** 34 semester credits

**Resident credit requirement:** 15 semester credits

Bachelor Degrees

The bachelor degree is awarded upon the successful completion of a prescribed program of requirements.

**Minimum credit requirements:** 120 semester credits

**General Education requirements:** 34 semester credits

**Upper Division requirement:** 42 semester credits for B.B.A., B.L.A. degrees, 42-48 semester credits for B.S. degrees

**Resident credit requirement:** 30 semester credits, 24 must be upper division

**Additional special requirements:** Some degrees require completion of a portfolio or other assessment of
student achievement. See specific degree information for details.

**Bachelor Degrees Available:** Bachelor of Business Administration (Accounting, Entrepreneurship, Health Care Management, Human Resources Management, and Marketing); Bachelor of Arts (Biology, Elementary Education, English and Social Science); Bachelor of Liberal Arts (Art, General Studies, Human Communication and Language Arts and Communications); Bachelor of Science (Biology and Marine Biology, Environmental Science, Mathematics, and Information Systems).

**Minors**

The same discipline may not be used to satisfy the major and the minor (i.e. English major and English minor does not make a degree.) If a course is a requirement of both the major and the minor, a student may use the course to meet both requirements but will not receive double credit.

UAS has minors to complement our bachelor degrees. Please refer to the section on minors in this catalog. Requirements may differ slightly among minors; however, each has a minimum of 15 or more credits.

**Minors Available:** Alaska Native Studies, Art, Biology, Business, Computer Information and Office Systems, Construction Technology, Creative Writing, English, Environmental Science, French, Human Communication, Legal Studies, Mathematics, Northwest Coast Art, Philosophy, Professional Communication, Spanish, Theatre, Tlingit Language, and Women’s and Gender Studies.

**Additional Degrees**

**Second Associate Degree:** An Associate of Applied Science as a second degree requires completion of a minimum of 12 semester hours of credit beyond the first (or latest) Associate of Applied Science degree. All general University requirements and degree requirements of the major must be met for each degree.

As the Associate of Arts degree is intended to provide a student with a basis of general education in order to undertake bachelor degree work, only one A.A. may be earned by a student.

**Second Bachelor Degree:** A second bachelor degree requires completion of a minimum of 24 semester hours of credit beyond the first bachelor degree. All general University requirements, degree requirements, and requirements of the major must be met for both degrees. Students who have earned a bachelor degree from a University other than UAS, must apply for admission and comply with all general University and program requirements.

**Degree Seeking Status for Undeclared Students**

*(Juneau applicants only)*

UAS offers a variety of bachelor degree options, and incoming students may not know which degree they would like to pursue. Students need time to explore, gather information and identify and examine alternatives. Undecided bachelor degree-seeking students should select the Undeclared option at the time of admission.

Undeclared students are advised in the Student Resource Center. As an undeclared or deciding applicant, students who have not selected a specific degree program when they arrive, will choose a degree by working with their advisors and exploring career options. This transition usually takes place within the student’s first year at UAS.

Based on the student’s interests, goals and academic background, an advisor assists the student in the preparation of an individualized program to explore various academic disciplines and at the same time fulfill general education and other course requirements or electives.
Arts and Sciences

Humanities

Humanities at UAS include the disciplines of art, English (composition and literature), languages, linguistics, outdoor studies, physical education, music, philosophy, human communication, and theatre. The humanities focus on the study of human actions, ideals, thoughts, traditions, and values. Students undertaking study in the humanities engage in time-tested methods of inquiry: creative endeavor, critical interpretation, dialogue, historical and logical analysis, and scholarly investigation. Students in the humanities analyze, create, evaluate, engage in group processes, interpret, investigate, and record products of human activity, culture, and imagination.

The BLA degree with an emphasis in art, language arts and communications, general studies, or human communication prepares students for graduate school in various disciplines and employment in the public and private sector wherever a baccalaureate degree is valued and wherever strengths in critical thinking and oral, visual, and written communication are valued.

The B.A. in English is designed to serve the needs of three groups of undergraduate students. First, it is directed toward students preparing to enter the M.A.T. program in secondary education at UAS and thus reflects the requirements for certification in language arts. Second, it is designed to serve students seeking entry-level employment in the fields of editing, writing, public relations and government. Third, it is intended to serve students preparing for graduate study in law, public administration, technical writing, creative writing and English.

The literature and environment specialization within the English B.A. program is designed to capitalize on the unique natural setting of Southeast Alaska and to build upon existing institutional strengths in environmental literature and philosophy. Students pursuing this specialization will be prepared for careers and graduate programs in literature, teaching, environmental education and journalism.

Interim Dean
Virginia Mulle

Faculty

Jamie Autrey
Assistant Professor of Art (S)

Clare Bennett
Assistant Professor of Spanish and Communication (K)

Nina Chordas
Assistant Professor of English (J)

Laura Cowan
Associate Professor of English (J)

Jo Devine-Acres
Associate Professor of English (J)

Richard Dauenhauer
President’s Professor of Alaska Native Language and Culture (J)

Virginie Duverger
Assistant Professor of French (J)

Ernestine Hayes
Assistant Professor of English (J)

Jeremy Kane
Assistant Professor of Art (J)

Susan Koester
Professor of Communications (J)

Kevin Krein
Associate Professor of Philosophy (J)

Rod Landis
Associate Professor of English (K)

Liz McKenzie
Associate Professor of English (S)

Art Petersen
Professor of English, Emeritus (J)

Jean Richey
Assistant Professor of Communication (J)

Alice Tersteeg
Professor of Art (J)
Humanities Degrees

Certificate in Outdoor Skills and Leadership (J)
Associate of Arts (J, K, S)
Bachelor of Liberal Arts (J)
  With emphasis areas in:
  • Art
  • General Studies (also Distance Delivered)
  • Human Communication
  • Language Arts and Communications

Bachelor of Arts (J)
  • English

Minors (J)
  • Art
  • Creative Writing
  • English
  • French
  • Human Communication
  • Northwest Coast Art
  • Philosophy
  • Professional Communication
  • Spanish
  • Theater
  • Tlingit Language

Arts and Sciences

Natural Sciences

Education in mathematics and sciences provides students with the scientific and analytical methods of thinking and means of exploration to understand the world in which we live. Course work provides students with a thorough grounding in the natural sciences and mathematics. The goal of the natural sciences programs is to educate citizens to make rational decisions in today's society. Students not seeking a degree in mathematics and the natural sciences are offered a variety of general-interest courses, including courses that fulfill elective and general education requirements. Course work in mathematics and natural science also supports allied health programs and other transfer programs. Courses in mathematics and natural sciences are listed under the following catalog headings: astronomy, biology, chemistry, geology, environmental sciences, mathematics, oceanography, physics and statistics.

Interim Dean
Virginia Mulle

Faculty

Deborah Barnett
Assistant Professor of Biology (S)

Brian Blitz
Associate Professor of Mathematics (J)

Marnie Chapman
Assistant Professor of Biology (S)

Cathy Connor
Associate Professor of Geology (J)

Jill Dumesnil
Assistant Professor of Mathematics (J)

Ginny L. Eckert
Associate Professor of Mathematics (J)

Brian Edmonds
Assistant Professor of Biology (J)

Christopher Hay-Jahans
Assistant Professor of Mathematics (J)

Matthew Heavner
Assistant Professor of Physics (J)

Lisa Hoferkamp
Assistant Professor of Chemistry (J)

Eran Hood
Assistant Professor of Environmental Science (J)

Wayne Houtcooper
Assistant Professor of Science (K)

Colleen Ianuzzi
Assistant Professor of Mathematics (K)

Brendan P. Kelly
Associate Professor of Marine Biology (J)

Joe Liddle
Associate Professor of Mathematics (S)

Elizabeth Mathews
Assistant Professor of Marine Biology (J)

Sonia Nagorski
Assistant Research Professor of Environmental Science (J)
Sanjay Pyare  
Assistant Professor of Geographical Information Systems (J)

Ronald Seater  
Professor of Mathematics (J)

Michael S. Stekoll  
Professor of Chemistry and Biochemistry (J)

Janice Straley  
Assistant Professor of Marine Biology (S)

David Tallmon  
Assistant Professor of Biology (J)

Sherry Tamone  
Associate Professor of Biology (J)

Rosemary Walling  
Assistant Professor of Science (J)

Natural Science Degrees

Bachelor of Arts in Biology (J)  
Bachelor of Science in Biology (J)  
Bachelor of Science in Marine Biology (J)  
Bachelor of Science in Environmental Science (J)  
Bachelor of Science in Mathematics (J)

Minors  
- Biology  
- Environmental Science  
- Mathematics

Arts and Sciences

Social Sciences

One of the important goals of a university education is to “liberate the powers of the individual by disciplining them” (William Theodore deBary). The Social Science program at UAS fulfills this aim by stressing the importance of method, concept, and theory in the study of human origins, development, thought, behavior, and institutions. 

The Social Sciences at UAS include anthropology, economics, geography, government, history, psychology, and sociology. Each of these disciplines seeks a better understanding of human behavior through research, analysis, and interpretation of social phenomena. 

The foundation of the Social Science Department’s approach to undergraduate education assessment is the student senior portfolio plan. Every full-time undergraduate maintains a portfolio of work that reflects the entire student career. Following a well-developed plan, students present their accomplishments and successes in a senior assessment portfolio. The assessment portfolio is formally reviewed the semester prior to graduation.

Interim Dean  
Virginia Mulle

Faculty

Erica Hill  
Assistant Professor of Anthropology (J)

Daniel Lord  
Assistant Professor of Psychology (J)

Daniel Monteith  
Assistant Professor of Anthropology (J)

Virginia S. Mulle  
Associate Professor of Sociology (J)

David Noon  
Assistant Professor of History (J)

Wallace M. Olson  
Professor of Anthropology, Emeritus (J)

John Radziloski  
Assistant Professor of History (K)

Grant Rich  
Assistant Professor of Psychology (J)

Priscilla M. Schulte  
Professor of Anthropology and Sociology (K)

Alexander Simon  
Assistant Professor of Sociology (J)

Clive S. Thomas  
Professor of Political Science (J)

Robin Walz  
Associate Professor of History (J)

Social Science Degrees

Bachelor of Arts in Social Sciences (J)  
with primary and secondary concentrations in:

- Anthropology  
- Economics  
- Government  
- History  
- Psychology  
- Sociology

Minors  
- Alaska Native Studies
School of Management

Business Administration

Business programs prepare students to perform effectively in private businesses and public-service organizations. The required courses of study provide the foundation for professional careers in organizations of all sizes. The curricula are designed to develop critical thinking, communication skills, basic computer knowledge, awareness of ethical issues, and expertise in selected business management discipline.

Undergraduate degrees available include the one-year Accounting Technician Certificate and Small Business Management Certificate, the two-year Associate of Applied Science in Business Administration (A.A.S.), and the four-year Bachelor’s of Business Administration (B.B.A.) with an emphasis in accounting, management, marketing, or general business. The BBA is distance delivered via the worldwide web.

Certificate and A.A.S. graduates will be qualified for vocationally oriented positions such as accounting clerk with the state or local government, and accounts payable or accounts receivable clerk with private business. Bachelor degree program graduates will generally pursue or strengthen a professional-level accounting, management, or marketing career. The Bachelor of Business Administration culminates in a capstone course (BA-462) in which students demonstrate competency in solving complex and unstructured problems applying knowledge gained through the range of business courses taken. The BBA Capstone is intended for graduating seniors. Enrollment is requires departmental approval and is limited to students that have completed all of the major requirements for the Bachelor of Business Administration.

The Master of Business Administration is designed for working professionals who are managers and leaders in the corporate and for-profit world. This degree is distance delivered through the worldwide web as a cohort model with 25 students per year. In this model, all students begin together, take all courses together, and complete the two-year program together. The content of this program is designed to provide experience in the practical application of and tools required for success in business.

Public Administration

The Master of Public Administration is a professional degree for public and non-profit managers. It is delivered through a variety of distance technologies to students in Alaska and the Yukon. The MPA degree prepares students for leadership at all levels of government and in non-profit organizations. It is designed for working professionals who seek to increase knowledge and credentials in public administration.

Information Systems

Information Systems programs offer a variety of levels of skill training and courses of study in computing including one-year certificates, a two-year associate of applied science degree (AAS) and a four-year bachelor’s degree. UAS is one of the few universities nationwide where you can earn a bachelor’s degree in application computing. Studying information systems at UAS prepares students for professional positions in one of three career tracks: e-commerce, networking, or programming. These rigorous courses of study combine a solid theoretical background, industry certifications, and the “soft skills” you’ll need to succeed. The coursework teaches computing skills employers are looking for today.

Employer surveys have repeatedly stressed the importance of certain basic skills in obtaining a position with, and advancing in an organization. The faculty of business, public administration, and information systems is committed to student outcomes assessment and preparing students for their careers. As a result, minimum skill levels in written and verbal communication, quantitative analysis, information literacy, computer usage, professional behavior, and critical thinking are required of each student and will be evaluated periodically throughout the individual’s college career.

Dean
Karen R. Schmitt

Faculty
Jonathan F. Anderson
Associate Professor of Public Administration (J)

Mike Boyer
Assistant Professor of Law Science (J)

Kathy DiLorenzo
Assistant Professor of Public Administration (J)

Janet L. Dye
Professor of Accounting (J)

Richard Hacker
Professor of Law Science, Emeritus (J)

Steven L. Hamilton
Assistant Professor of Business Administration (J)

Ronald Hulstein
Assistant Professor of Accounting (J)

Yuliya V. Ivanova
Assistant Professor of Management (J)

Mark W. Speece
Associate Professor of Marketing (J)
Anselm Staack  
Assistant Professor of Accounting (J)

**Business and Public Administration Degrees**  
*Available in Juneau, Ketchikan, Sitka, and via Distance unless otherwise noted*

**Certificates**  
- Accounting Technician  
- Small Business Management

**Associate of Applied Science**  
- Business Administration

**Bachelor of Business Administration**  
*Web-based only. With emphasis areas in:*
- Accounting  
- Entrepreneurship  
- Healthcare Administration  
- Human Resources Management  
- Marketing

**Minors**  
- Business

**Master of Business Administration**  
*Web-based only*

**Master of Public Administration**  
*Available in Juneau and Distance*

**Faculty**

Patricia DeAngelis  
Assistant Professor of Information Systems (K)

H. Eve Dillingham  
Assistant Professor of Information Systems (J)

Susan Feero  
Assistant Professor of Information Systems (S)

Richard McDonald  
Assistant Professor of Information Systems (K)

Colleen McKenna  
Assistant Professor of Information Systems (J)

Eric Niewoehner  
Assistant Professor of Information Systems (J)

Tim Powers  
Associate Professor of Information Systems (J)

**Computer Information and Office Systems Degrees**  
*Available in Juneau, Ketchikan, Sitka, and via Distance unless otherwise noted*

**Occupational Endorsements**  
**Computer Information and Office Systems**
- Administrative Office Support  
- Computer Applications  
- Introductory Network Administration  
- Medical Office Specialist  
- Networking Essentials  
- Programming Foundations  
- Web Authoring  
- Web Foundations

**Certificates**  
- Computer Information and Office Systems

**Associate Of Applied Science**  
- Computer Information and Office Systems

**Bachelor of Science in Information Systems**  
*With emphasis areas in:*
- E-commerce  
- Networking  
- Programming

**Minors**  
- Computer Information and Office Systems

**Career Education**

Career Education provides programs to meet the short-term training needs and long-term vocational, technical, and occupational needs of the residents of Southeast Alaska. These programs provide specific job-related skills for employment, lifelong learning opportunities, and professional advancement that enable graduates to function effectively in a technology-dependent society. Career Education includes programs in automotive, diesel and hydraulics, construction, drafting/AutoCAD, building science, welding, law enforcement, environmental technology, fisheries technology, health information management, health sciences, marine transportation, pre-nursing qualifications, and pre-radiologic technology qualifications. Certificates and Associate of Applied Science (A.A.S.) degrees are offered in certain fields.

Career education programs and courses provide students with employment skills for entry into the job...
market, industry-specific skill upgrade or retraining, occupational certifications, and preparation for license examinations.

Courses are delivered using a variety of teaching methods, including distance delivery through audio, video, Internet and printed materials. Vocational-technical laboratories provide students with state-of-the-art equipment comparable to what would be encountered in industry. To accommodate training needs of business and industry, some courses are compressed from meeting a few hours per week for a semester into day-long classes that may meet for more than a week. This arrangement allows students to complete course offerings in an abbreviated time period that may be more easily accommodated in a non-traditional student schedule.

Dean
Karen R. Schmitt

Faculty
Tim Anderson  
Assistant Professor of Environmental Technology (S)

Mike Bell  
Assistant Professor of Diesel Technology (J)

Steve Brandow  
Assistant Professor of Welding (K)

Chuck Craig  
Associate Professor of Diesel/Hydraulics (J)

Marquam George  
Associate Professor of Construction Technology (J)

Robin Gilcrist  
Assistant Professor of Construction Technology (J)

Leslie Gordon  
Assistant Professor of Health Information (S)

Pat Hughes  
Assistant Professor of Construction (S)

Carol Liberty  
Professor of Health Information Management (S)

James McCauley  
Assistant Professor of Environmental Technology (S)

J.A. (Tony) Martin  
Assistant Professor of Automotive Technology (J)

Diane Mille  
Assistant Professor of Health Sciences (S)

Dale Miller  
Assistant Professor of Marine Transportation (K)

Allen Puckett  
Assistant Professor of Welding Technology (S)

Charles Ross  
Assistant Professor of Construction Technology (J)

Marianne Stillner  
Assistant Professor of Nursing Education (J)

Kate Sullivan  
Assistant Professor of Fisheries Technology (K)

Margaret Walmer  
Assistant Professor of Health Sciences (J)

Career Education Degrees

Occupational Endorsements
Construction Technology
• Residential/Light Construction (J)
• Residential Building Science (J)

Environmental Technology
• Wastewater Operations (S)
• Water Operations (S)

Power Technology
• Automotive Emphasis (J)
• Diesel/Heavy Duty Emphasis (J)
• Diesel/Marine Emphasis (J)
• Marine Engine Room Preparation (J)
• Marine Transportation (J)

Welding
• AWS Welding (K)
• Welding Technology (S)

Certificates
• Automotive Technology (J)
• Community Wellness Advocate (D,S)
• Drafting Technology (J)
• Environmental Technology (S)
• Fisheries Technology (K)
• Healthcare Privacy (D,S)
• Health Information Management Coding Specialist (S)
• Law Enforcement (S)
• Pre-Nursing Qualifications (J,K,S)
• Pre-Radiologic Technology Qualifications (J,K,S)
• Residential Building Science (J)
Associate of Applied Science

- Apprenticeship Technology (J, K, S)
- Computer Information & Office Systems (J, K, S)
- Construction Technology (J)
- Environmental Technology (S)
- Fisheries Technology (K)
- Health Information Management (S)
- Health Sciences (J,K,S)
- Power Technology with emphases in Automotive, Diesel or Marine Oiler (J)

Education

The School of Education (SOE) faculty’s mission is to identify, prepare, and strengthen effective teachers who will make sustained contributions to students and the education profession in rural and urban settings in Alaska and nationally. Our vision is that graduates will become informed, reflective, and responsive teachers within diverse classroom, school and community contexts.

While mastering competencies stated in the Alaska Standards for Teachers, students also demonstrate goals/outcomes that are at the core of SOE’s conceptual framework:

Goal/Outcome 1: Teachers articulate, maintain, and develop a philosophy of education that they also demonstrate in practice.

Goal/Outcome 2: Teachers understand how human development affects learning and apply that understanding to practice.

Goal/Outcome 3: Teachers differentiate instruction with respect for individual and cultural characteristics.

Goal/Outcome 4: Teachers possess current academic content knowledge.

Goal/Outcome 5: Teachers facilitate learning by using assessment to guide planning, instruction, and modification of teaching practice.

Goal/Outcome 6: Teachers create and manage a stimulating, inclusive and safe learning community in which students take intellectual risks and work independently and collaboratively.

Goal/Outcome 7: Teachers work as partners with parents, families and the community.

Goal/Outcome 8: Teachers develop and maintain professional, moral, and ethical attitudes, behaviors, relationships, and habits of mind.

Goal/Outcome 9: Teachers use technology effectively, creatively, and wisely.

Teacher Education Accreditation

The School of Education at the University of Alaska Southeast is accredited by the National Council for Accreditation of Teacher Education (NCATE), a performance-based teacher accrediting body for schools, colleges and departments of education (2110 Massachusetts Ave., NW, suite 500, Washington, DC 20036; phone (202) 466-7496). This accreditation covers initial and advanced teacher preparation programs. NCATE is recognized by the Alaska Department of Education and Early Development, the U.S. Department of Education and the Council for Higher Education Accreditation to accredit programs for the preparation of teachers and other professional school personnel.

Education Programs

Our programs place special emphasis on diverse needs of students, up-to-date technology and strong field-based experiences. Programs are available on the Juneau campus or are offered in Southeast Alaska and other parts of the state through distance delivery.

The education faculty emphasizes active, engaged learning that will result in reflective and critical thinking as opposed to passive listening, memorizing, and rote learning. Course work requires the application of theory into practice in field settings. UAS education graduates seeking employment have experienced successful placement throughout Alaska and the country. In addition, our advanced degree programs and Center for Educational Leadership Renewal and Innovation (CELRI) offer a variety of opportunities for teachers to advance their learning and take leadership roles in their fields.

Dean
Larry B. Harris

Faculty

Jill Burkert
Assistant Professor of Education (J)

Thomas S. Duke
Assistant Professor of Education (J)

Virgil Fredenberg
Assistant Professor of Education (J)

Marjorie Fields
Professor of Education, Emeritus (J)

Marsha Gladhart
Assistant Professor of Education (J)

Shirley Kaltenbach
Assistant Professor of Education (J)
Jeffrey Lofthus
Assistant Professor of Education (J)

David Marvel
Associate Professor of Education (J)

Kathrin McCarthy
Assistant Professor of Education (J)

Claude McMillan III
Assistant Professor of Education (J)

Lawrence Lee Oldaker
Professor of Education, Emeritus (J)

Katherine Spangler
Professor of Education (J)

Mary-Claire Tarlow
Associate Professor of Education (J)

Cara Wicks-Ortega
Assistant Professor in Education (J)

Education Degrees
Available via distance except as noted.

Occupational Endorsement
(National credentialing program)
• Child Development Associate Credential (CDA)

Certificate
• Early Childhood Education

Associate of Applied Science
• Early Childhood Education

Bachelor of Arts
• Elementary Education (D)

Master of Arts in Teaching
• Early Childhood Education
• Elementary Education (D)
• Elementary Education (J)
• Secondary Education (J)

Master of Education
• Early Childhood Education
• Educational Technology
• Reading
• Special Education

Graduate Certificates
• Elementary Education
• Early Childhood Education
• Educational Technology
• Mathematics
• Reading
• Special Education
Occupational endorsements (O.E.) are under 30 credit hours and will be posted to student transcripts upon completion as approved by the academic department.

**Child Development Associate (CDA) O.E.**

*Occupational Endorsement
Juneau, Distance Delivery*

The Child Development Associate (CDA) is the first step in the UAS early childhood education career ladder. The CDA credential is awarded by the Council for Early Childhood Professional Recognition based in Washington, D.C. The Council awards the credential based upon assessment of competency. UAS offers early childhood courses (one credit each) that prepare students to demonstrate the required competencies. These courses apply toward the Early Childhood Certificate and the A.A.S. degree in Early Childhood Education.

**MINIMUM CREDIT HOURS**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE S109</td>
<td>CDA Assessment Preparation</td>
<td>1</td>
</tr>
<tr>
<td>ECE S112</td>
<td>Young Children and Health</td>
<td>1</td>
</tr>
<tr>
<td>ECE S113</td>
<td>Safe Learning Environment</td>
<td>1</td>
</tr>
<tr>
<td>ECE S114</td>
<td>Effective Learning Environment</td>
<td>1</td>
</tr>
<tr>
<td>ECE S121</td>
<td>Physical Development of Young Children</td>
<td>1</td>
</tr>
<tr>
<td>ECE S122</td>
<td>Young Children and Cognitive Development</td>
<td>1</td>
</tr>
<tr>
<td>ECE S123</td>
<td>Language and Literature Activities for Young Children</td>
<td>1</td>
</tr>
<tr>
<td>ECE S124</td>
<td>Young Children and Creative Development</td>
<td>1</td>
</tr>
<tr>
<td>ECE S132</td>
<td>Young Children and Families</td>
<td>1</td>
</tr>
<tr>
<td>ECE S141</td>
<td>Classroom Management for Young Children</td>
<td>1</td>
</tr>
<tr>
<td>ECE S142</td>
<td>Social Development for Young Children</td>
<td>1</td>
</tr>
<tr>
<td>ECE S143</td>
<td>Developing Positive Self-Concepts in Young Children</td>
<td>1</td>
</tr>
<tr>
<td>ECE S171</td>
<td>Program Management</td>
<td>1</td>
</tr>
<tr>
<td>ECE S172</td>
<td>Professional Issues</td>
<td>1</td>
</tr>
</tbody>
</table>

An admitted UAS student holding a current CDA credential through non-college training will be awarded six semester hours of transfer equivalency credit for the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE S112</td>
<td>Young Children and Health</td>
<td>1</td>
</tr>
<tr>
<td>ECE S113</td>
<td>Safe Learning Environment</td>
<td>1</td>
</tr>
</tbody>
</table>

Select one from the following (1 credit):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE S171</td>
<td>Program Management</td>
<td>1</td>
</tr>
<tr>
<td>ECE S172</td>
<td>Professional Issues</td>
<td>1</td>
</tr>
</tbody>
</table>

and 3 other credits of approved ECE electives. These credits are non-transferable.

**Computer Information and Office Systems O.E.**

*Occupational Endorsement
Juneau, Ketchikan, Sitka*

The Information Systems department offers options in Administrative Office Support, Computer Applications, Introductory Network Administration, Medical Office Specialist, Networking Essentials, Programming Foundations, Web Authoring, and Web Foundations. These endorsements are intended to indicate competence in technical and professional courses and are articulated with the Certificates in Computer Information and Office Systems, the A.A.S. in Computer Information and Office Systems and the B.S. in Information Systems.

A comprehensive Computer Placement Test is available at the Testing Center to assess your current computer knowledge. Beginning computer users are encouraged to take CIOS 100, Computers for Absolute Beginners. A minimum grade of C is required in all CIOS courses. Some courses will be offered only by distance delivery. Due to the rapid change in technology the certificates in Computer Applications, Web Foundations, and Web Authoring must be completed in a maximum of three years.

**Administrative Office Support
Juneau, Ketchikan, Sitka, Distance Delivery**

Provides students with skills to serve as administrative office assistants.

**MINIMUM CREDIT HOURS**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIOS S101</td>
<td>Computer Keyboarding and Formatting</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S110A</td>
<td>Microcomputer Operating Systems, Part A</td>
<td>1</td>
</tr>
<tr>
<td>CIOS S125</td>
<td>Messing and Scheduling Management</td>
<td>1</td>
</tr>
<tr>
<td>CIOS S132</td>
<td>Word Processing Concepts and Applications</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S135</td>
<td>Using Spreadsheets in the Workplace</td>
<td>1</td>
</tr>
<tr>
<td>CIOS S140</td>
<td>Using Databases in the Workplace</td>
<td>1</td>
</tr>
<tr>
<td>CIOS S146A</td>
<td>Internet Concepts and Applications, Part A</td>
<td>1</td>
</tr>
<tr>
<td>CIOS S160</td>
<td>Business English</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S264</td>
<td>Records Management</td>
<td>2</td>
</tr>
<tr>
<td>CIOS S294</td>
<td>Business or Networking Practicum</td>
<td>1</td>
</tr>
</tbody>
</table>

Select one from the following (3 credits):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT S100</td>
<td>Record Keeping for a Small Business</td>
<td>3</td>
</tr>
<tr>
<td>ACCT S121</td>
<td>Introduction to Accounting</td>
<td>3</td>
</tr>
</tbody>
</table>
Computer Applications
Juneau, Ketchikan, Sitka, Distance Delivery
Provides students with skills to perform standard office automation tasks in business and organizations.

MINIMUM CREDIT HOURS 20
CIOS S101A Computer Keyboarding and Formatting, Part A 1
CIOS S110 Microcomputer Operating Systems 3
CIOS S125 Messaging and Scheduling Management 1
CIOS S132 Word Processing Concepts and Applications 3
CIOS S146 Internet Concepts and Applications 3
CIOS S151 Presentation Graphics Concepts and Applications 1
CIOS S235 Spreadsheet Concepts and Applications 3
CIOS S240 Database Concepts and Applications 3
CIOS S250 Integrated Applications 1
CIOS S___ Advisor-approved electives 1

Networking Essentials
Juneau, Ketchikan, Sitka
Provides students with Local Area Network setup and troubleshooting skills for network technician employment. Certificate is designed to offer complete coverage of objectives for CompTIA A+ and Network+, vendor neutral industry certificate exams.

MINIMUM CREDIT HOURS 20
CIOS S110B Microcomputer Operating Systems, Part B 2
CIOS S111 Microcomputer Concepts 2
CIOS S118 Information System Mathematics 3
CIOS S209 Hardware Concepts 3
CIOS S210 Operating Systems 3
CIOS S241 Introduction to Network and the OSI Reference Model 4
CIOS S245 Computer Network Concepts and Administration 3

Introductory Network Administration
Juneau, Ketchikan, Sitka, Distance Delivery
Introduces students to design, implementation, and troubleshooting of Local Area Networks (LANs) and Wide Area Networks (WANs) within a corporation. Prepares students for Cisco Certified Network Associate (CCNA) certification.

MINIMUM CREDIT HOURS 22
CIOS S118 Information System Mathematics 3
CIOS S170 Programming I 3
CIOS S241 Introduction to Networking and the OSI Reference Model 4
CIOS S244 Internetwork Router Configuration and Design 4
CIOS S247 Local Area Network Configuration and Design 4
CIOS S248 Wide Area Network Configuration and Design 4

Programming Foundations
Juneau, Ketchikan, Sitka, Distance Delivery
Provides students with minimum skills to serve as entry-level application programmers.

MINIMUM CREDIT HOURS 21
CIOS S118 Information System Mathematics 3
CIOS S170 Programming I 3
CIOS S240 Database Concepts and Applications 3
CIOS S257 Advanced Web Site Design and Development 3
CIOS S274 Data Structures and Algorithms 3
CIOS S275 Programming in Java 3
CIOS S279 Database Theory and SQL 3

Web Authoring
Juneau, Ketchikan, Sitka, Distance Delivery
Provides students with comprehensive web publishing skills leading to self-employment or introductory employment in the web publishing field.

MINIMUM CREDIT HOURS 20
CIOS S170 Programming I 3
CIOS S257 Advanced Web Site Design and Development 3
CIOS S279 Database Theory and SQL 3
CIOS S340 Database Driven Websites 3
CIOS S___ Advisor-approved electives 8

Medical Office Specialist
Juneau, Ketchikan, Sitka, Distance Delivery
Provides students with skills to work as office assistant in a medical office.

MINIMUM CREDIT HOURS 20
CIOS S101 Computer Keyboarding and Formatting 3
CIOS S132 Word Processing Concepts and Applications 3
CIOS S160 Business English 3
CIOS S166 Medical Office Procedures 3
CIOS S264 Records Management 2
CIOS S294 Business or Networking Practicum 3
HIM S135 Medical Terminology 3

Web Foundations
Juneau, Ketchikan, Sitka, Distance Delivery
Provides students with the knowledge skill and ability to design and build all necessary components of a non-commercial website.
**Construction Technology O.E.**

**Occupational Endorsement**

**Juneau, Sitka**

### Residential/Light Construction

This endorsement gives a general overview of the industry and provides skill development opportunities. The endorsement is articulated with the A.A.S. degree in Construction Technology. Completion requires the student to place at MATH S055 or higher.

**MINIMUM CREDIT HOURS** 12

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CT</td>
<td>S120 Basic Construction Techniques</td>
<td>3</td>
</tr>
<tr>
<td>CT</td>
<td>S201 Cold Climate Coastal Construction</td>
<td>3</td>
</tr>
<tr>
<td>CT</td>
<td>S222 Building Construction I</td>
<td>3</td>
</tr>
<tr>
<td>CT</td>
<td>S223 Building Construction II</td>
<td>3</td>
</tr>
</tbody>
</table>

### Residential Building Science

This endorsement is for individuals interested in the dynamics and systems approach to residential building. The emphasis is teaching the essentials of diagnostic assessment and the issues of building durability, building performance, energy efficiency, and indoor air quality in residential buildings. Upon completion, participants will have the necessary skills for employment opportunities as State energy raters, weatherization assessors, home inspectors, or will have improved skills as building contractors, managers and appraisers.

**MINIMUM CREDIT HOURS** 24

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CT</td>
<td>S110 Where Health and Housing Meet</td>
<td>1</td>
</tr>
<tr>
<td>CT</td>
<td>S165 Residential Building Technology</td>
<td>3</td>
</tr>
<tr>
<td>CT</td>
<td>S185 Building Diagnostics and Testing</td>
<td>3</td>
</tr>
<tr>
<td>CT</td>
<td>S201 Cold Climate Coastal Construction</td>
<td>3</td>
</tr>
<tr>
<td>CT</td>
<td>S210 New Materials in Construction</td>
<td>1</td>
</tr>
<tr>
<td>CT</td>
<td>S224 Mechanical Systems for Buildings</td>
<td>3</td>
</tr>
<tr>
<td>CT</td>
<td>S285 Advanced Building Pressure Diagnostics</td>
<td>3</td>
</tr>
<tr>
<td>ENGL</td>
<td>S111 Methods of Written Communication</td>
<td>3</td>
</tr>
<tr>
<td>PHYS</td>
<td>S102 Survey of Physics</td>
<td>4</td>
</tr>
</tbody>
</table>

---

**Environmental Technology O.E.**

**Occupational Endorsement**

**Sitka**

The Environmental Technology program offers options in either Water Operations or Wastewater Operations. Both are designed for the entry-level operator and will provide the required knowledge for State of Alaska OIT and Level 1 operator certification. Students who complete these endorsements will be well qualified for operator positions. These endorsements articulate with the ENVT Certificate and the A.A.S. in Environmental Technology. All classes are offered via distance education, originating from the Sitka campus.

### Wastewater Operations Emphasis

**MINIMUM CREDIT HOURS** 15

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIOS</td>
<td>S135 Using Spreadsheets in the Workplace</td>
<td>1</td>
</tr>
<tr>
<td>ENVT</td>
<td>S101 Introduction to Environmental Technology</td>
<td>3</td>
</tr>
<tr>
<td>ENVT</td>
<td>S102 Applied Math for Water/Wastewater Operations</td>
<td>3</td>
</tr>
<tr>
<td>ENVT</td>
<td>S111 Wastewater Systems</td>
<td>3</td>
</tr>
<tr>
<td>ENVT</td>
<td>S211 Wastewater Treatment</td>
<td>3</td>
</tr>
<tr>
<td>ENVT</td>
<td>S___ Advisor-approved elective</td>
<td>2</td>
</tr>
</tbody>
</table>

### Water Operations Emphasis

**MINIMUM CREDIT HOURS** 15

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIOS</td>
<td>S135 Using Spreadsheets in the Workplace</td>
<td>1</td>
</tr>
<tr>
<td>ENVT</td>
<td>S101 Introduction to Environmental Technology</td>
<td>3</td>
</tr>
<tr>
<td>ENVT</td>
<td>S102 Applied Math for Water/Wastewater Operations</td>
<td>3</td>
</tr>
<tr>
<td>ENVT</td>
<td>S110 Drinking Water Systems</td>
<td>3</td>
</tr>
<tr>
<td>ENVT</td>
<td>S210 Water Treatment</td>
<td>3</td>
</tr>
<tr>
<td>ENVT</td>
<td>S___ Advisor-approved elective</td>
<td>2</td>
</tr>
</tbody>
</table>

---

**Marine Transportation O.E.**

**Occupational Endorsements**

**Ketchikan**

The Marine Transportation Occupational Endorsement provides training for mariners to advance in the wide variety of positions and vessels in the marine industry. The courses and instructor are US Coast Guard approved for testing in class and articulate with the AAS in Marine Transportation.

**MINIMUM CREDIT HOURS** 9

*Advisor approved from the following (at least one course must be 200-level):*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MT</td>
<td>S129 Basic Safety Training**</td>
<td>2</td>
</tr>
<tr>
<td>MT</td>
<td>S131 Seamanship*</td>
<td>3</td>
</tr>
<tr>
<td>MT</td>
<td>S132 Basic Navigation &amp; Piloting*</td>
<td>4</td>
</tr>
<tr>
<td>MT</td>
<td>S225 Able Seaman*</td>
<td>2</td>
</tr>
</tbody>
</table>
Northwest Coast Art O.E.

**Occupational Endorsement**

**Juneau**

Options include weaving, basketry and carving.

**MINIMUM CREDIT HOURS** 20

All of the following (minimum 5 credits):
- ART S181 Beginning Northwest Coast Design 1-3
- ART S263 Northwest Coast Native History and Culture 1-3
- ART S497 Portfolio Review of the best work from selected classes and an independently created piece 1-3

Select one emphasis from the following:

**Basketry Emphasis**

**MINIMUM CREDIT HOURS** 15

Select from the following:
- ART S138 Natural Dye 1-3
- ART S183 Northwest Coast Harvesting and Preparation of Basketry Materials 0.5
- ART S282 Beginning Northwest Coast Basketry 1-3
- ART S284 Northwest Coast Basket Design 1
- ART S382 Intermediate Northwest Coast Basketry 1-3

And other approved basketry courses

**Carving Emphasis**

**MINIMUM CREDIT HOURS** 15

Select from the following:
- ART S189 Northwest Coast Toolmaking 2
- ART S285 Beginning Northwest Coast Carving 1-3
- ART S385 Intermediate Northwest Coast Carving 1-3

And other approved carving courses

Weaving Emphasis

**MINIMUM CREDIT HOURS** 15

Select from the following (15 credits total):
- ART S116 Fiber Arts-Spinning 1-3
- ART S138 Natural Dye 1-3
- ART S286 Beginning Northwest Coast Woolen Weaving 1-3
- ART S386 Intermediate NW Coast Woolen Weaving 1-3

And other approved weaving courses

Power Technology O.E.

**Occupational Endorsements**

**Juneau**

Options include Automotive, and Diesel/Heavy Duty, or Diesel/Marine with an option for engine room preparation. Each provides technical courses in the appropriate specialty. Students must earn a 2.0 GPA in the overall program. These occupational endorsements articulate with the A.A.S. in Power Technology.

**Automotive Emphasis**

**MINIMUM CREDIT HOURS** 23

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO S102</td>
<td>Introduction to Automotive Technology</td>
<td>3</td>
</tr>
<tr>
<td>AUTO S121</td>
<td>Auto Electrical I</td>
<td>3</td>
</tr>
<tr>
<td>AUTO S122</td>
<td>Engine Performance I</td>
<td>3</td>
</tr>
<tr>
<td>AUTO S131</td>
<td>Auto Electrical II</td>
<td>3</td>
</tr>
<tr>
<td>AUTO S152</td>
<td>Brake Systems</td>
<td>4</td>
</tr>
<tr>
<td>AUTO S160</td>
<td>Manual Drive Train and Axles</td>
<td>3</td>
</tr>
<tr>
<td>AUTO S162</td>
<td>Suspension and Alignment</td>
<td>4</td>
</tr>
</tbody>
</table>

**Diesel/Heavy Duty Emphasis**

**MINIMUM CREDIT HOURS** 27

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DESL S110</td>
<td>Diesel Engines</td>
<td>6</td>
</tr>
<tr>
<td>DESL S125</td>
<td>Hydraulics</td>
<td>3</td>
</tr>
<tr>
<td>DESL S130</td>
<td>Refrigeration and Air Conditioning</td>
<td>2</td>
</tr>
<tr>
<td>DESL S171</td>
<td>Heavy Duty Electrical Systems</td>
<td>3</td>
</tr>
<tr>
<td>DESL S180</td>
<td>AC Power Generation</td>
<td>3</td>
</tr>
<tr>
<td>DESL S250</td>
<td>Heavy Duty Brakes and CDL Preparation</td>
<td>2</td>
</tr>
<tr>
<td>DESL S255</td>
<td>Heavy Duty Suspension and Alignment</td>
<td>2</td>
</tr>
<tr>
<td>DESL S260</td>
<td>Heavy Duty Power Trains</td>
<td>3</td>
</tr>
<tr>
<td>WELD S120</td>
<td>Basic Welding I</td>
<td>3</td>
</tr>
</tbody>
</table>

**Diesel/Marine Emphasis**

**MINIMUM CREDIT HOURS** 28

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DESL S110</td>
<td>Diesel Engines</td>
<td>6</td>
</tr>
<tr>
<td>DESL S125</td>
<td>Hydraulics</td>
<td>3</td>
</tr>
<tr>
<td>DESL S130</td>
<td>Refrigeration and Air Conditioning</td>
<td>2</td>
</tr>
<tr>
<td>DESL S171</td>
<td>Heavy Duty Electrical Systems</td>
<td>3</td>
</tr>
<tr>
<td>DESL S180</td>
<td>AC Power Generation</td>
<td>3</td>
</tr>
<tr>
<td>DESL S261</td>
<td>Marine Auxiliary Systems</td>
<td>3</td>
</tr>
<tr>
<td>DESL S262</td>
<td>Marine Auxiliary Systems Lab</td>
<td>2</td>
</tr>
<tr>
<td>DESL S263</td>
<td>Marine Transmissions</td>
<td>3</td>
</tr>
<tr>
<td>WELD S120</td>
<td>Basic Welding I</td>
<td>3</td>
</tr>
</tbody>
</table>
Marine Engine Room Preparation Emphasis

**MINIMUM CREDIT HOURS** 28

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DESL S110</td>
<td>Diesel Engines</td>
<td>6</td>
</tr>
<tr>
<td>DESL S130</td>
<td>Refrigeration and Air Conditioning</td>
<td>2</td>
</tr>
<tr>
<td>DESL S161</td>
<td>Applied Marine Hydraulics</td>
<td>1</td>
</tr>
<tr>
<td>DESL S171</td>
<td>Heavy Duty Electrical Systems</td>
<td>3</td>
</tr>
<tr>
<td>DESL S180</td>
<td>AC Power Generation</td>
<td>3</td>
</tr>
<tr>
<td>DESL S261</td>
<td>Marine Auxiliary Systems</td>
<td>3</td>
</tr>
<tr>
<td>DESL S262</td>
<td>Marine Auxiliary Systems Lab</td>
<td>2</td>
</tr>
<tr>
<td>DESL S263</td>
<td>Marine Transmissions</td>
<td>3</td>
</tr>
<tr>
<td>MT S129</td>
<td>Basic Safety Training</td>
<td>2</td>
</tr>
<tr>
<td>WELD S120</td>
<td>Basic Welding I</td>
<td>3</td>
</tr>
</tbody>
</table>

Welding O.E.

**Occupational Endorsement**

**Ketchikan, Sitka**

Courses designed to develop skills in welding are available at Sitka and Ketchikan UAS campuses. The facilities and equipment vary on each campus, which necessitates different teaching styles and course presentations. The Ketchikan campus program teaches skills essential for passing the various AWS welding classes.

**AWS Welding**

**Ketchikan**

This occupational endorsement (O.E.) is based upon the AWS standards set forth in the AWS EG2.0-95 and AWS Qc11, Guide for the Training and Qualification of Welding Personnel. The mission of the AWS Welding O.E. is to prepare students to meet the need for industrial applications of welding in the workplace. This endorsement requires full time enrollment for two semesters and is designed for students to complete competencies in Entry Level and Advanced Welding.

**MINIMUM CREDIT HOURS** 24

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>WELD S150</td>
<td>AWS Entry Level Welder</td>
<td>12</td>
</tr>
<tr>
<td>WELD S151</td>
<td>AWS Advanced Welder</td>
<td>12</td>
</tr>
</tbody>
</table>

Welding Technology

**Sitka**

**MINIMUM CREDIT HOURS** 20

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>WELD S104</td>
<td>Oxyacetylene Welding, Cutting and Brazing</td>
<td>2</td>
</tr>
<tr>
<td>WELD S105</td>
<td>Arc Welding</td>
<td>2</td>
</tr>
<tr>
<td>WELD S107</td>
<td>Arc Welding II</td>
<td>2</td>
</tr>
<tr>
<td>WELD S108</td>
<td>Arc Welding III</td>
<td>2</td>
</tr>
<tr>
<td>WELD S130</td>
<td>MIG Welding</td>
<td>2</td>
</tr>
<tr>
<td>WELD S131</td>
<td>TIG Welding</td>
<td>2</td>
</tr>
<tr>
<td>WELD S132</td>
<td>Pipe Welding, Uphill Techniques</td>
<td>2</td>
</tr>
<tr>
<td>WELD S133</td>
<td>Pipe Welding, Downhill Techniques</td>
<td>2</td>
</tr>
<tr>
<td>WELD S135</td>
<td>Blueprints and Symbols</td>
<td>2</td>
</tr>
<tr>
<td>WELD S200</td>
<td>Metal Fabrications Laboratory</td>
<td>2</td>
</tr>
</tbody>
</table>
Certificates

Certificates are programs of one year length for full-time students. Certificates require 9 credits of general requirements be completed as well as major requirements for a minimum of 30 credits. Requirements for the certificates may be articulated with the associate of applied science degrees. Contact an advisor for assistance in planning a program of study and choosing appropriate courses.

Accounting Technician Certificate

Juneau, Ketchikan, Sitka, Distance Delivery

The accounting certificate program is designed to provide intensive training for accounting occupations. Skills gained are job-entry in nature.

**MINIMUM CREDIT HOURS** 30

**GENERAL REQUIREMENTS** 9-10

Written and Oral Communication Skills

*Select one from the following (3 credits):*
- ENGL S111 Methods of Written Communication 3
- CIOS S160 Business English 3
- COMM S111 Fundamentals of Oral Communication* 3
  *Grade C or better

Computational Skills

*Select one from the following (3-4 credits):*
- CIOS S116 Business Mathematics 3
- MATH S105 Intermediate Algebra (or higher MATH course) 3-4

Other Skills

*Select one from the following (3 credits):*
- BA S201 Introduction to Management and Supervision 3
- CIOS S262 Professional Development 3
- PSY S101 Introduction to Psychology 3
- PSY S153 Human Relations 3

**PROGRAM REQUIREMENTS** 21

- ACCT S222 Computer Automated Accounting 3
- BA S151 Introduction to Business (or advisor-approved business course) 3
- CIOS S235 Spreadsheet Concepts and Applications 3
- CIOS S___ Advisor-approved CIOS elective 3
- ___ S___ Advisor-approved elective 3

*Select two from the following (6 credits):*
- ACCT S121 Introduction to Accounting I 3
- ACCT S122 Introduction to Accounting II 3
- ACCT S201 Principles of Financial Accounting 3
- ACCT S202 Principles of Managerial Accounting 3

Automotive Technology Certificate

Juneau

The Automotive Technology Certificate program is designed to prepare individuals to secure entry level employment in positions requiring basic technical skills. Successful completion can lead to employment in automobile dealerships, fleet service operations, national chain automotive service stores, or franchise and independent repair shops. Students expecting to gain employment in this industry will need a valid driver’s license with a good driving record, and a personal tool box meeting industry standards (contact department for details).

**Admission Requirements**

Students will be admitted to the Automotive Technology Certificate program when they have met the following requirements:

1. Submission of a resume of work experiences and a letter stating why the individual wants to become an automotive technician.
2. Completion of a pre-admission interview.

**MINIMUM CREDIT HOURS** 33

**GENERAL REQUIREMENTS** 10

Written Communication Skills
- ENGL S111 Methods of Written Communication 3

Oral Communication Skills

*Select one from the following (3 credits):*
- COMM S111 Fundamentals of Oral Communications* 3
- COMM S235 Small Group Communication and Team Building* 3
- COMM S237 Interpersonal Communication* 3
- COMM S241 Public Speaking* 3
  *Grade C or better

Computational Skills
- MATH S105 Intermediate Algebra (or higher) 4
Community Wellness Advocate Certificate

Sitka, Distance Delivery

The Community Wellness Advocate (CWA) Certificate is an innovative distance-delivered program offered in cooperation with the Southeast Alaska Regional Health Consortium. The CWA certificate prepares students to provide community-based health promotion and disease prevention services that reflect the needs of their community. Students who successfully complete this program are prepared to work as part of an overall health promotion team in tribal health and wellness programs or non-profit agencies and are especially well-suited to deliver responsive nutrition education to meet growing health issues in Alaska (diabetes, heart disease and cancer). Specialty tracks include: Nutrition, Injury Prevention.

Admission Requirements

Students need a GED and or high school diploma and must complete English and Computer placement exams as part of the admission procedure.

MINIMUM CREDIT HOURS 30

GENERAL REQUIREMENTS 8

Written Communication Skills
ENGL S110 Introduction to College Writing 4

Oral Communication Skills
Select one from the following (3 credits):
COMM S111 Fundamentals of Oral Communication* 3
COMM S235 Small Group Communication and Team Building* 3
COMM S237 Interpersonal Communication* 3
COMM S241 Public Speaking* 3

*Grade C or better

Computer Skills
CIOS S100 Computers for Absolute Beginners 1

PROGRAM REQUIREMENTS 12

HS S125 Public Health and Health Promotion 4
HS S126 Health Promotion through Behavior Change 4
HS S202 Community Health Promotion 4

Select one specialty track:

NUTRITION SPECIALTY TRACK 10
HS S127 Basic Nutrition and the Life Cycle 3
HS S128 Food Safety and Preservation 1
HS S204 Introduction to Nutrition Education 3
HS S294 Nutrition Education Practicum 3

INJURY PREVENTION SPECIALTY TRACK 10
HS S130 Public Health and Injury Prevention 3
HS S131 Role of Data in Injury Prevention 3
HS S132 Managing Injury Prevention Programs 4

Computer Information and Office Systems Certificate

Juneau, Ketchikan, Sitka, Distance Delivery

This certificate prepares individuals to secure entry-level employment in positions requiring information technology and administrative support skills. Basic computing skills are required to begin coursework. A comprehensive Computer Placement Test is available at the Testing Center to assess your current computer knowledge. A minimum grade of C is required in all CIOS courses.

MINIMUM CREDIT HOURS 30

GENERAL REQUIREMENTS 12

Written Communication Skills
ENGL S111 Methods of Written Communication 3

Select one from the following (3 credits):
ENGL S211 Intermediate Composition: Writing About Literature 3
ENGL S212 Technical Report Writing 3

or both
CIOS S160 Business English 3
CIOS S260 Business Communications 3

Computational Skills
CIOS S118 Information System Mathematics 3

Other Skills
CIOS S262 Professional Development 3

PROGRAM REQUIREMENTS 20-22

Select one from the following Occupational Endorsements:
Administrative Office Support
Computer Applications
Introductory Network Administration
Medical Office Specialist
Networking Essentials
Programming Foundations
Web Authoring
Web Foundations
Drafting Technology Certificate

Juneau

Courses combine the technical information and hands-on experience necessary for work in a variety of drafting fields. Students gain hands-on training in construction, and develop job ready skills with conventional drawing techniques and computer-aided drafting. Development of skills in mathematics, drawing and lettering, architectural concepts, design and construction techniques.

**MINIMUM CREDIT HOURS** 34

**GENERAL EDUCATION REQUIREMENTS** 10

Written Communication Skills  
ENGL S111  Methods of Written Communication 3

Oral Communication Skills  
Select one from the following (3 credits):  
COMM S111  Fundamentals of Oral Communication* 3  
COMM S235  Small Group Communication and Team Building* 3  
COMM S237  Interpersonal Communication* 3  
Grade C or better

Computational Skills  
MATH S105  Intermediate Algebra (or higher) 4

**PROGRAM REQUIREMENTS** 24

CT S120  Basic Construction Techniques 3  
CT S150  Basic Drafting 3  
CT S160  House Planning and Architectural Design 3  
CT S175  Introduction to AutoCAD 3  
CT S181  Intermediate AutoCAD 3  
CT S201  Cold Climate Coastal Construction 3  
CT S250  Building Codes and Standards 3  
CT S252  Construction Documentation 3

Environmental Technology Certificate

Sitka, Distance Delivery

This certificate program emphasizes technical operations. Students successfully completing this program qualify for the Department of Environmental Conservation Operator-in-Training Certification examination and meet educational requirements for Level One certification in Water Treatment, Water Distribution, Wastewater Collection, and Wastewater Treatment. Students may also qualify for entry-level employment in water/wastewater utilities or as environmental technicians. The certificate also contains the first year of course work required for the Associate of Applied Science Degree in Environmental Technology.

**MINIMUM CREDIT HOURS** 31

**GENERAL REQUIREMENTS** 9–10

Written Communication Skills  
ENGL S111  Methods of Written Communication 3

Computational Skills  
Select one from the following (3–4 credits):  
ENVT S102  Applied Mathematics for Water/Wastewater Operations 3  
MATH S105  Intermediate Algebra 4

Social Science Skills  
SOC S102  Science, Technology and Society 3

ENVT S102 meets Certificate requirements only. MATH S105 is required for the Associate Degree and is recommended for students who wish to proceed to degree completion.
### Fisheries Technology Certificate

**Ketchikan, Distance Delivery**

This program is articulated with the A.A.S. in Fisheries Technology and is intended to offer students practical skills and knowledge to enter careers in fisheries technology. Students may elect a certificate with a fish culture or fisheries management emphasis. The Certificate requires 3 credit hours of internship.

#### Fish Culture Emphasis

**MINIMUM CREDIT HOURS**

<table>
<thead>
<tr>
<th>GENERAL REQUIREMENTS</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Written and Oral Communication Skills</strong></td>
<td></td>
</tr>
<tr>
<td>Select one from the following (3 credits):</td>
<td></td>
</tr>
<tr>
<td>ENGL S111 Methods of Written Communication</td>
<td>3</td>
</tr>
<tr>
<td>ENGL S212 Technical Report Writing</td>
<td>3</td>
</tr>
<tr>
<td>COMM S111 Fundamentals of Oral Communication*</td>
<td>3</td>
</tr>
<tr>
<td>COMM S235 Small Group Communication and Team Building*</td>
<td>3</td>
</tr>
<tr>
<td>*Grade C or better</td>
<td></td>
</tr>
<tr>
<td><strong>Computational Skills</strong></td>
<td></td>
</tr>
<tr>
<td>Select one from the following (4 credits):</td>
<td></td>
</tr>
<tr>
<td>MATH S105 Intermediate Algebra</td>
<td>4</td>
</tr>
<tr>
<td>MATH S107 College Algebra</td>
<td>4</td>
</tr>
<tr>
<td>STAT S107 Survey of Statistics</td>
<td>4</td>
</tr>
<tr>
<td><strong>Science Skills</strong></td>
<td></td>
</tr>
<tr>
<td>Select one from the following (4 credits):</td>
<td></td>
</tr>
<tr>
<td>BIOL S103 Biology and Society</td>
<td>4</td>
</tr>
<tr>
<td>BIOL S104 Natural History of Alaska</td>
<td>4</td>
</tr>
<tr>
<td>BIOL S105 Fundamentals of Biology I</td>
<td>4</td>
</tr>
<tr>
<td>BIOL S106 Fundamentals of Biology II</td>
<td>4</td>
</tr>
<tr>
<td>CHEM S103 Introduction to General Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>ENV S101 Introduction to Environmental Science</td>
<td>4</td>
</tr>
<tr>
<td><strong>PROGRAM REQUIREMENTS</strong></td>
<td>21</td>
</tr>
<tr>
<td>FT S120 Fisheries of Southeast Alaska</td>
<td>3</td>
</tr>
<tr>
<td>FT S122 Fin Fish Culture I</td>
<td>3</td>
</tr>
<tr>
<td>FT S222 Fin Fish Culture II</td>
<td>3</td>
</tr>
<tr>
<td>FT S273 Fundamentals of Fisheries Biology</td>
<td>4</td>
</tr>
<tr>
<td>FT S291 Fisheries Technology Internship</td>
<td>3</td>
</tr>
</tbody>
</table>

### Fisheries Management Emphasis

**MINIMUM CREDIT HOURS**

<table>
<thead>
<tr>
<th>GENERAL REQUIREMENTS</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Written and Oral Communication Skills</strong></td>
<td></td>
</tr>
<tr>
<td>Select one from the following (3 credits):</td>
<td></td>
</tr>
<tr>
<td>ENGL S111 Methods of Written Communication</td>
<td>3</td>
</tr>
<tr>
<td>ENGL S212 Technical Report Writing</td>
<td>3</td>
</tr>
<tr>
<td>COMM S111 Fundamentals of Oral Communication*</td>
<td>3</td>
</tr>
<tr>
<td>COMM S235 Small Group Communication and Team Building*</td>
<td>3</td>
</tr>
<tr>
<td>*Grade C or better</td>
<td></td>
</tr>
<tr>
<td><strong>Computational Skills</strong></td>
<td></td>
</tr>
<tr>
<td>Select one from the following (4 credits):</td>
<td></td>
</tr>
<tr>
<td>MATH S105 Intermediate Algebra</td>
<td>4</td>
</tr>
<tr>
<td>MATH S107 College Algebra</td>
<td>4</td>
</tr>
<tr>
<td>STAT S107 Survey of Statistics</td>
<td>4</td>
</tr>
<tr>
<td><strong>Science Skills</strong></td>
<td></td>
</tr>
<tr>
<td>Select one from the following (4 credits):</td>
<td></td>
</tr>
<tr>
<td>BIOL S103 Biology and Society</td>
<td>4</td>
</tr>
<tr>
<td>BIOL S104 Natural History of Alaska</td>
<td>4</td>
</tr>
<tr>
<td>BIOL S105 Fundamentals of Biology I</td>
<td>4</td>
</tr>
<tr>
<td>BIOL S106 Fundamentals of Biology II</td>
<td>4</td>
</tr>
<tr>
<td><strong>PROGRAM REQUIREMENTS</strong></td>
<td>21</td>
</tr>
<tr>
<td>FT S120 Fisheries of Southeast Alaska</td>
<td>3</td>
</tr>
<tr>
<td>FT S210 Field Methods/Safety in Fisheries Technology</td>
<td>4</td>
</tr>
<tr>
<td>FT S272 Fisheries Management, Law, Economics</td>
<td>3</td>
</tr>
<tr>
<td>FT S273 Fundamentals of Fisheries Biology</td>
<td>4</td>
</tr>
<tr>
<td>FT S291 Fisheries Technology Internship</td>
<td>3</td>
</tr>
</tbody>
</table>

### Health Information Management Coding Specialist Certificate

**Sitka, Distance Delivery**

An area of HIM specifically focused on coding/classifications systems at both the inpatient and outpatient level. The certificate will allow students to obtain entry-level skills in healthcare coding and the opportunity to continue to earn an associate of applied science degree. National credentialing exams are available at both the entry and advanced level.
MINIMUM CREDIT HOURS 30

GENERAL REQUIREMENTS 13
Written Communication Skills
ENGL S111 Methods of Written Communication 3

Science Skills
BIOL S111 Anatomy and Physiology I 4
BIOL S112 Anatomy and Physiology II 4

Computer Skills
CIOS S110A Microcomputer Operating Systems, Part A 1

Select 1 of the following (1 credit):
CIOS S135 Using Spreadsheets in the Workplace 1
CIOS S140 Using Databases in the Workplace 1

PROGRAM REQUIREMENTS 17
HIM S135 Medical Terminology 3
HIM S190 CPT Coding 3
HIM S210 ICD-9-CM Coding 3
HIM S215 Billing and Reimbursement 2
HIM S260 Data Quality and Reimbursement 2
HIM S270 Pathology 3
HIM S271 Pharmacology 1

Healthcare Privacy Certificate

Sitka, Distance Delivery
This distance-delivered Healthcare Privacy Certificate prepares students for employment in data access and disclosure. Students who complete this program are prepared to work in a variety of employment settings, particularly in healthcare related facilities. This certificate contains coursework that will apply toward the Associate of Applied Science degree in Health Information Management (HIM).

Admission Requirements
High school diploma or GED, and must complete English placement exam as part of the admissions process.

MINIMUM CREDIT HOURS 30

GENERAL REQUIREMENTS 9
Written Communication Skills
ENGL S111 Methods of Written Communication 3

Oral Communication Skills
COMM S111 Fundamentals of Oral Communication* 3

*Grade C or better

Computer Skills
CIOS S110A Microcomputer Operating System 1
CIOS S135 Using Spreadsheets in the Workplace 1
CIOS S140 Using Databases in the Workplace 1

PROGRAM REQUIREMENTS 21
HIM S124 Introduction to Health Information Practice 5
HIM S135 Medical Terminology 3
HIM S160 Alternative Delivery Systems 3
HIM S180 Computer Applications 2

HIM S240 Legal Aspects of Health Information 3
HIM S250 Quality Management 2
HIM S285 Healthcare Privacy 3

Law Enforcement Certificate

Sitka
The law enforcement program is a full-time, rigorous and highly structured program offered in cooperation with the Alaska Public Safety Academy. The program is a pre-employment curriculum comparable to training offered in municipal police officer training academies. The program is also recognized by the National Park Service as meeting training requirements for seasonal law enforcement officers.

Admission Requirements
Students must meet all criteria established for admission to the Academy, and must abide by Academy rules and regulations. Students are required to reside at the Academy while completing the 12 credit Justice course requirement. Students may reside at the Student Campus Residence Hall while completing the required English and speech courses at the Sitka campus during an intensive 6-week program which precedes the Academy course work. Alternately, students may transfer the required English and speech courses from other institutions. No portion of the Justice course work may be transferred from another institution.

MINIMUM CREDIT HOURS 18

GENERAL REQUIREMENTS 6
Written Communication Skills
Select one from the following (3 credits):
ENGL S110 Introduction to College Writing 3
ENGL S111 Methods of Written Communication 3

Oral Communication Skills
COMM S111 Fundamentals of Oral Communication* 3

*Grade C or better

PROGRAM REQUIREMENTS 12
ENGL S101 College Skills (optional course) 1
JUST S111 Physical Training 1
JUST S112 Procedural Law 2
JUST S113 Criminal Justice 1
JUST S114 Traffic Law Enforcement 1
JUST S115 Police Procedures 5
JUST S116 Criminal Investigation 2
Outdoor Skills and Leadership Certificate

Juneau
The Outdoor Skills and Leadership program offers courses in partnership with the National Forest Service. The certificate is a nine month intensive humanities program designed to develop skills and characteristics that are essential to success as an individual, a group member, and a leader in outdoor and adventure settings. The program incorporates outdoor risk management, leadership skills, specific outdoor activity skills (such as rock and ice climbing, kayaking, skiing, camping), and academic work in areas such as Alaska history, science, philosophy, and communication. Both outdoor and academic courses are designed to develop not only knowledge but also personal traits such as self-reliance and good judgment. The curriculum includes 34 credits of course work and practical learning experiences. Individuals who complete the program will have the knowledge and skills to plan and manage a variety of outdoor experiences and will be well qualified for entry level positions in the outdoor industry.

Admission Requirements
Individuals entering the certificate program must provide required application materials by July 1 of the year they wish to enroll. Please visit the www.uas.alaska.edu/ods for specific application and admission requirements.

MINIMUM CREDIT HOURS 34
Students must complete ENGL 111 with a C or higher or place into ENGL 211 to complete this program.

GENERAL REQUIREMENTS 13
Oral Communication Skills
COMM S235 Small Group Communication and Team Building* 3
*Grade C or better
Other Skills
ODS S193 Wilderness First Responder 4
ODS S206 Outdoor Leadership 3
PHIL S271 Perspectives on the Natural World 3

Additional courses may be needed to prepare students to complete required courses.

PROGRAM REQUIREMENTS 21
Select from the following (21 credits total):
ODS S114 Backpacking in SE Alaska 1
ODS S115 Winter Backpacking in SE Alaska 1
ODS S116 Introduction to Rock Climbing 1
ODS S117 Introduction to Ice Climbing 1
ODS S118 Avalanche Evaluation and Theory-Level I 2
ODS S133 Introduction to Sea Kayaking 1
ODS S148 Backcountry Skiing and Snowboarding 1
ODS S205 Backcountry Travel and Navigation 2
ODS S221 Glacier Travel and Crevasse Rescue Fundamentals 2
___ S Advisor-approved elective 2
___ S Related academic electives* 9

*Elective courses must be chosen from the list found at our website www.uas.alaska.edu/ods. At least 3 of the 9 elective credits must be chosen from the courses indicated as having an Alaskan focus. Some academic elective courses have prerequisites. Students should note that they are only allowed to take courses for which they meet the prerequisites.

Pre-Nursing Qualifications Certificate

Juneau, Ketchikan, Sitka
The Certificate in Pre-Nursing Qualifications (CPNQ) prepares students to enter professional nursing programs, the graduates of which sit for a national registered nurse (RN) exam. The certificate includes a base in the university’s GER options in communication, computation and human relations. The listed courses provide pre- and co-requisite preparation for successful application to most A.A.S. nursing programs. This certificate exceeds the minimum requirements for the UAA/UAS A.A.S. in Nursing Program. Further, it includes all of the prerequisite course requirements for the UAA BSN Nursing program. Completion of these courses is not a guarantee of entry into any particular professional nursing program. Students are urged to consult, early on, the program materials and advisors for specific nursing program(s) to which they seek entry.

Admission
Students are admitted to the program after completing an application for admission and declaring interest in the CPNQ. At the time of admission, students are assigned to a Health Science advisor.

Degree Requirements
The CPNQ Certificate requires 14 classes, yielding a minimum of 47 credits, with a minimum of 19 of these credits in the GERs. At least 9 credits must be taken at UAS. A minimum grade of C is required in all courses.

MINIMUM CREDIT HOURS 47
GENERAL REQUIREMENTS 19
Written Communication Skills
ENGL S111 Methods of Written Communication 3
Select one from the following (3 credits):
ENGL S211 Intermediate Composition: Writing about Literature 3
ENGL S212 Technical Report Writing 3
Certificates

Oral Communication Skills

Select one from the following (3 credits):
- COMM S111 Fundamentals of Oral Communication* 3
- COMM S235 Small Group Communication and Team-Building* 3
- COMM S237 Interpersonal Communication* 3
*Grade C or better

Computational Skills

MATH S105 Intermediate Algebra (or higher) 4

Social Sciences

Select one from the following (3 credits):
- ANTH S101 Introduction to Anthropology 3
- ANTH S202 Cultural Anthropology 3
- PSY S101 Introduction to Psychology (preferred) 3
- SOC S101 Intro to Sociology 3

Select one from the following (3 credits):
- Communication, social science, biology, chemistry, statistics or mathematics GER* 3
*Student cannot have already used these GER credits to fulfill other certificate requirements.

PROGRAM REQUIREMENTS 28

BIOL S111 Human Anatomy and Physiology I 4
BIOL S112 Human Anatomy and Physiology II 4
BIOL S240 Introductory Microbiology 4
HS S203 Science of Nutrition 3
PSY S250 Lifespan Development 3

Select one from the following (3-4 credits):
- BIOL S103 Biology and Society 4
- ___ S___ Advisor-approved elective* 3
*Health sciences, biology, chemistry, statistics or social sciences; only for students who had biology with lab in high school.

or select both of the following (8 credits):

BIOL S105 Fundamentals of Biology I 4
BIOL S106 Fundamentals of Biology II 4

Select one from the following (3-4 credits):

CHEM S103 Introduction to General Chemistry 4
CHEM S104 Survey of Organic and Biochemistry 4
- ___ S___ Advisor-approved elective* 3
*Health sciences, biology, chemistry, statistics or social sciences; only for students who had biology with lab in high school.

Select one from the following (4-9 credits):

HS S103 Personal Care Assistant Training 4
HS S104 PCA to CNA Bridge 4
HS S105 Certified Nurses Aide Training 9
HS S119 Emergency Medical Technician I 4

Pre-Radiologic Technology Qualifications Certificate

Juneau, Ketchikan, Sitka

The Certificate in Pre-Radiologic Technology Qualifications (CPRTQ) prepares students to enter professional medical imaging programs, the graduates of which sit for a national radiologic technology exam. The certificate includes a base in the university’s GER options in communication, computation and human relations. The CPRTQ includes all pre-requisites for entry into and all program co-requisites for completion of most A.A.S. in Radiologic Technology programs. Further, the program is designed such that all courses also fit into the parent UAS A.A.S. in Health Sciences program. This certificate exceeds minimum pre-requisites and co-requisites for the UAA A.A.S. in Radiologic Technology. Completion of these courses, however, is not a guarantee of entry into any particular medical imaging program. Students are urged to consult early on the program materials and advisors for those professional program(s) to which they may seek admission.

Admission Requirements

Students are admitted to the program after completing an application for admission and declaring interest in the CPRTQ. At the time of admission, students are assigned to a Health Science advisor.

Program Requirements

The CPRTQ Certificate requires 12 classes, yielding a minimum of 36 credits, of which 16 credits are in the GERs. At least 9 credits must be taken at UAS. A minimum grade of C is required in all courses.

MINIMUM CREDIT HOURS 36

GENERAL REQUIREMENTS 16

Written Communication Skills

ENGL S111 Methods of Written Communication 3

Select one from the following (3 credits):

ENGL S211 Intermediate Composition: Writing About Literature 3
ENGL S212 Technical Report Writing 3

Oral Communication Skills

COMM S111 Fundamentals of Oral Communication* 3
COMM S235 Small Group Communication and Team-Building* 3
COMM S237 Interpersonal Communication* 3
*Grade C or better

Computational Skills

MATH S105 Intermediate Algebra (or higher) 4

Social Sciences

Select one from the following (3 credits):

PSY S101 Introduction to Psychology 3
PSY S250 Lifespan Development 3

PROGRAM REQUIREMENTS 20

BIOL S111 Human Anatomy and Physiology I 4
BIOL S112 Human Anatomy and Physiology II 4
HS S107 Planning Your Career in Healthcare 1
HS S135 Medical Terminology 3
HS S141 Introduction to Radiologic Technology and Patient Care 3
HS S150 Radiation Protection for Non-Imaging Professionals 3
HS S151 Medical Imaging Physics 2
Residential Building Science Certificate

Juneau

This certificate is for individuals interested in the dynamics and systems approach to residential building. The program emphasis is teaching the essentials of diagnostic assessment and the issues of building durability, building performance, energy efficiency, and indoor air quality in residential buildings. Upon completion of this program, participants will have the necessary skills for employment opportunities as State energy raters, weatherization assessors, home inspectors or will have improved skills as building contractors, managers and appraisers.

**MINIMUM CREDIT HOURS**

**32**

**GENERAL REQUIREMENTS**

10

Written Communication Skills
ENGL S111 Methods of Written Communication 3

Oral Communication Skills

*Select one of the following (3 credits):*

COMM S111 Fundamentals of Oral Communication* 3
COMM S235 Small Group Communication and Team Building* 3
COMM S237 Interpersonal Communication* 3
COMM S241 Public Speaking* 3

*Grade C or better

Computational Skills
MATH S105 Intermediate Algebra (or higher) 4

**PROGRAM REQUIREMENTS**

22

CIOS S135 Using Spreadsheets in the Workplace 1
CT S110 Where Health and Housing Meet 1
CT S165 Residential Building Technology 3
CT S185 Building Diagnostics and Testing 3
CT S201 Cold Climate Coastal Construction 3
CT S210 New Materials in Construction 1
CT S224 Mechanical Systems for Buildings 3
CT S285 Advanced Building Pressure Diagnostics 3
PHYS S102 Survey of Physics 4

Small Business Management Certificate

Juneau, Ketchikan, Sitka

The one-year Small Business Management certificate enables the student to explore business career options and gives entry-level job or upgrade skills for employment advancement. It may also be the first year of training towards the two-year Associate of Applied Science in Business Administration. The Small Business Management curriculum is designed to provide education in business theory and practical applications necessary for owners, managers, and employees of small business firms. Students develop both the technical and human relations skills necessary to succeed in today’s competitive business environment.

**MINIMUM CREDIT HOURS**

**30**

**GENERAL REQUIREMENTS**

9

Written Communication Skills

*Select one from the following (3 credits):*

ENGL S111 Methods of Written Communication 3
CIOS S260 Business Communications 3

Oral Communication Skills

*Select one from the following (3 credits):*

COMM S111 Fundamentals of Oral Communication* 3
COMM S237 Interpersonal Communication* 3
PSY S153 Human Relations 3

*Grade C or better

Computational Skills

*Select one from the following (3 credits):*

CIOS S116 Business Mathematics 3
MATH S105 Intermediate Algebra or higher MATH course 3

**PROGRAM REQUIREMENTS**

21

BA S166 Small Business Management 3
BA S201 Introduction to Management and Supervision** 3
CIOS S___ Advisor-approved electives 3
___ S___ Advisor-approved electives* 6
___ S___ Advisor-approved elective 3

*Business administration, economics, law science or accounting

**ACCT S121 and ACCT S122 will meet ACCT S201 requirement

*Select one from the following (3 credits):*

ACCT S100 Recordkeeping for Small Business 3
ACCT S201 Principles for Financial Accounting 3
### Apprenticeship Technology, A.A.S.

**Associate of Applied Science**

**Juneau, Ketchikan, Sitka**

The Apprenticeship Technology program is available to individuals who have completed a formal apprenticeship program and hold journeyman-level status in trades recognized by the U.S. Department of Labor, Bureau of Apprenticeship and Training. This degree is available through campuses of the University of Alaska that offer the required academic credit courses. Upon completion of all the academic credit courses, the apprenticeship program will be evaluated and appropriate credit awarded. Fees may be involved. No more than 38 credit hours may be awarded for the formal apprenticeship program. Contact Career Education for further information.

#### MINIMUM CREDIT HOURS

60

**GENERAL EDUCATION REQUIREMENTS (PG. 58)** 21–22

- **Written Communication Skills**
  - ENGL S111 Methods of Written Communication 3
  - ENGL S212 Technical Report Writing 3

- **Oral Communication Skills**
  - COMM S111 Fundamentals of Oral Communications* 3

*Grade C or better

- **Computational Skills**
  - Select one from the following (3-4 credits):
    - MATH S107 College Algebra 4
    - STAT S___ Advisor-approved STAT course 3–4

- **Other Skills**
  - CIOS S262 Professional Development 3
  - HS S118 Emergency Trauma Technician-First Responder 3
  - CIOS S___ Advisor-approved CIOS course 3

**TECHNICAL CREDITS** 38-39

Technical credits from approved apprenticeship.

### Business Administration, A.A.S.

**Associate of Applied Science**

**Juneau, Ketchikan, Sitka, Distance Delivery**

The Business Administration program provides a course of study in various aspects of business management that prepares students for entry into the job market. The A.A.S. degree in business administration requires a minimum of 60 credit hours.

#### MINIMUM CREDIT HOURS

60

**GENERAL EDUCATION REQUIREMENTS (PG. 58)** 15-18

- **Written Communication Skills**
  - ENGL S111 Methods of Written Communication 3
  - Select one from the following (3 credits):
    - ENGL S211 Intermediate Composition: Writing About Literature 3
    - ENGL S212 Technical Report Writing 3
  - or both (6 credits):
    - CIOS S160 Business English 3
    - CIOS S260 Business Communications 3
Oral Communication Skills

Select one from the following (3 credits):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM S111</td>
<td>Fundamentals of Oral Communications*</td>
<td>3</td>
</tr>
<tr>
<td>COMM S235</td>
<td>Small Group Communication and Team Building*</td>
<td>3</td>
</tr>
<tr>
<td>COMM S237</td>
<td>Interpersonal Communication*</td>
<td>3</td>
</tr>
<tr>
<td>COMM S241</td>
<td>Public Speaking*</td>
<td>3</td>
</tr>
</tbody>
</table>

*Grade C or better

Other Skills

___ S___ Advisor-approved GERs** (pg. 58) 6

**Humanities, social sciences, natural sciences or mathematics

MAJOR REQUIREMENTS 30

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT S201</td>
<td>Principles of Financial Accounting **</td>
<td>3</td>
</tr>
<tr>
<td>ACCT S202</td>
<td>Principles of Managerial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S260</td>
<td>Business Communication</td>
<td>3</td>
</tr>
</tbody>
</table>

Select one from the following (3 credits):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT S222</td>
<td>Computer Automated Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACCT S316</td>
<td>Accounting Information Systems</td>
<td>3</td>
</tr>
</tbody>
</table>

Select one from the following (3 credits):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA S151</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BA S166</td>
<td>Small Business Management</td>
<td>3</td>
</tr>
</tbody>
</table>

Select one from the following (3 credits):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA S201</td>
<td>Introduction to Management and Supervision</td>
<td>3</td>
</tr>
<tr>
<td>BA S301</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
</tbody>
</table>

Select one from the following (3 credits):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA S330</td>
<td>Legal Environment of Business</td>
<td>3</td>
</tr>
<tr>
<td>LAWS S101</td>
<td>Introduction to Law</td>
<td>3</td>
</tr>
</tbody>
</table>

Select one from the following (3 credits):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIOS S235</td>
<td>Spreadsheet Concepts and Applications</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S240</td>
<td>Database Concepts and Applications</td>
<td>3</td>
</tr>
</tbody>
</table>

Select one from the following (3 credits):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON S201</td>
<td>Principles of Economics I: Macroeconomics*</td>
<td>3</td>
</tr>
<tr>
<td>ECON S202</td>
<td>Principles of Economics II: Microeconomics</td>
<td>3</td>
</tr>
</tbody>
</table>

*Note: MATH S105 is a corequisite

**ACCT S121 and ACCT S122 will meet ACCT S201 requirement

ELECTIVES 15

Electives can be used toward a concentration in Accounting, Computer Information and Office Systems, or Management

Computer Information and Office Systems, A.A.S.

Associate of Applied Science

Juneau, Ketchikan, Sitka, Distance Delivery

Computer Information and Office Systems is a program designed for people interested in securing employment in positions requiring information technology and administrative support skills. Successful completion of the CIOS computer placement test is required to begin coursework for this degree.

Degree Requirements

The Associate of Applied Science degree in Computer Information and Office Systems requires a minimum of 60 credit hours with 20 hours at the 200 level or above. A minimum grade of C is required in all CIOS courses.

MINIMUM CREDIT HOURS 60

GENERAL EDUCATION REQUIREMENTS (PG.58) 19

Written Communication Skills

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL S111</td>
<td>Methods of Written Communication</td>
<td>3</td>
</tr>
</tbody>
</table>

and either

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL S212</td>
<td>Technical Report Writing</td>
<td>3</td>
</tr>
</tbody>
</table>

or both

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIOS S160</td>
<td>Business English</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S260</td>
<td>Business Communication</td>
<td>3</td>
</tr>
</tbody>
</table>

Oral Communication Skills

Select one from the following (3 credits):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM S111</td>
<td>Fundamentals of Oral Communications*</td>
<td>3</td>
</tr>
<tr>
<td>COMM S235</td>
<td>Small Group Communication and Team Building*</td>
<td>3</td>
</tr>
<tr>
<td>COMM S237</td>
<td>Interpersonal Communication*</td>
<td>3</td>
</tr>
<tr>
<td>COMM S241</td>
<td>Public Speaking*</td>
<td>3</td>
</tr>
</tbody>
</table>

*Grade C or better

Computational Skills

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH S105</td>
<td>Intermediate Algebra (or higher)</td>
<td>4</td>
</tr>
</tbody>
</table>

Other Skills

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIOS S105</td>
<td>Computer Literacy</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S262</td>
<td>Professional Development</td>
<td>3</td>
</tr>
</tbody>
</table>

MAJOR REQUIREMENTS 32-37

Completion of one of the following emphasis areas:

Office Administration Emphasis 32

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIOS S101</td>
<td>Computer Keyboarding and Formatting</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S132</td>
<td>Word Processing Concepts and Applications</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S151</td>
<td>Presentation Graphics Concepts and Applications</td>
<td>1</td>
</tr>
<tr>
<td>CIOS S235</td>
<td>Spreadsheets Concepts and Applications</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S240</td>
<td>Database Concepts and Applications</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S246</td>
<td>Advanced Internet Concepts and Applications</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S250</td>
<td>Integrated Applications</td>
<td>1</td>
</tr>
<tr>
<td>CIOS S259</td>
<td>Preparing Electronic Documents</td>
<td>2</td>
</tr>
<tr>
<td>CIOS S260</td>
<td>Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S264</td>
<td>Records Management</td>
<td>2</td>
</tr>
<tr>
<td>CIOS S294</td>
<td>Business Practicum</td>
<td>2</td>
</tr>
</tbody>
</table>

Select from one of the following (3 credits):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT S100</td>
<td>Record Keeping for Small Business</td>
<td>3</td>
</tr>
<tr>
<td>ACCT S121</td>
<td>Introduction to Accounting I</td>
<td>3</td>
</tr>
</tbody>
</table>

Select from one of the following (3 credits):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA S151</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BA S166</td>
<td>Small Business Management</td>
<td>3</td>
</tr>
<tr>
<td>BA S201</td>
<td>Introduction to Management and Supervision</td>
<td>3</td>
</tr>
</tbody>
</table>

Publications Specialist Emphasis 35

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIOS S105</td>
<td>Computer Literacy</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S108</td>
<td>Graphic Design for Computer Applications</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S132</td>
<td>Word Processing Concepts and Applications</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S152</td>
<td>Digital Image Editing Concepts and Applications</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S157</td>
<td>Web Site Design and HTML</td>
<td>4</td>
</tr>
<tr>
<td>CIOS S246</td>
<td>Advanced Internet Concepts</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S251</td>
<td>Desktop Publication Concepts and Application</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S201</td>
<td>Exploring Digital Media</td>
<td>3</td>
</tr>
</tbody>
</table>
Associate Degrees

Select 3 credits from one the following CIOS Electives:
CIOS S235, CIOS S240, CIOS S160

Select 3 credits from one the following Marketing courses:
BA S343 Principles of Marketing

Select 3 credits from one the following approved electives:
ART S105, ART S160, ART S222, ART S224, ENGL S261

Network Technician Emphasis
CIOS S110B Microcomputer OS
CIOS S118 Information System Mathematics
CIOS S170 Programming Fundamentals
CIOS S209 Maintaining and Upgrading Your PC I
CIOS S210 Maintaining and Upgrading Your PC II
CIOS S241 Introduction to Networking and the OSI Reference Model
CIOS S244 Internetwork Router Configuration and Design
CIOS S245 Computer Network Concepts and Administration
CIOS S247 LAN Configuration and Design
CIOS S248 WAN Configuration and Design
CIOS S294 Networking Practicum

APPROVED ELECTIVES

Where there is duplication in courses between general requirements and major requirements or within the major requirements, additional electives will be required.

Construction Technology, A.A.S.

Associate of Applied Science
Juneau

This program will benefit those interested in working in the construction trades and in mid-management positions in the industry. Graduates of this program may enter the construction industry in residential construction, supervision, estimating, scheduling, safety, and the allied fields of materials and equipment sales and service.

MINIMUM CREDIT HOURS

GENERAL EDUCATION REQUIREMENTS (PG. 58)

Written Communication Skills
ENGL S111 Methods of Written Communication

Select one from the following (3 credits):
ENGL S211 Intermediate Composition: Writing About Literature
ENGL S212 Technical Report Writing

Oral Communication Skills
Select one from the following (3 credits):
COMM S111 Fundamentals of Oral Communication
COMM S235 Small Group Communication and Team Building
COMM S237 Interpersonal Communication
COMM S241 Public Speaking

*Grade C or better

Computational Skills
MATH S105 Intermediate Algebra (or higher)

Other Skills
___ S ___ Advisor-approved GERs* (pg. 58)

*Humanities, social sciences, mathematics, or natural sciences

MAJOR REQUIREMENTS

ACCT S100 Recordkeeping for Small Business
BA S166 Small Business Management
CIOS S110 Microcomputer Operating Systems
CT S100 Woodworking I
CT S120 Basic Construction Techniques
CT S150 Basic Drafting
CT S160 House Planning and Architectural Design
CT S175 Introduction to AutoCAD
CT S201 Cold Climate Coastal Construction
CT S222 Building Construction I
CT S223 Building Construction II
CT S224 Mechanical Systems for Buildings
CT S225 Construction Planning and Scheduling
CT S226 Construction Estimating

Early Childhood Education, A.A.S.

Associate of Applied Science
Juneau, Distance Delivery

Early Childhood Education courses are designed to prepare students for work in preschools, child care programs, Head Start schools, and as assistants in public school primary grades. The credits earned in the CDA and the certificate program can be part of the A.A.S. degree. Students are advised to take general education courses early in their program of study.

The associate degree is offered as a statewide program with an emphasis in Early Childhood through the Juneau campus and the College of Rural Alaska by distance delivery.

Degree Requirements

All program courses must be passed with a C or higher, and an overall minimum GPA of 2.0.

MINIMUM CREDIT HOURS

GENERAL EDUCATION REQUIREMENTS (PG. 58)

Written Communication Skills
ENGL S111 Methods of Written Communication

Select one from the following (3 credits):
ENGL S211 Intermediate Composition: Writing About Literature
ENGL S212 Technical Report Writing
COMM S211 Fundamentals of Oral Communication
COMM S235 Small Group Communication and Team Building
COMM S237 Interpersonal Communication
COMM S241 Public Speaking

[84]
ENVIRONMENTAL TECHNOLOGY, A.A.S.

Associate of Applied Science
Sitka, Distance Delivery

The Associate of Applied Science degree offers a fundamental background in environmental technology with an emphasis in the water and wastewater career field. Students successfully completing the degree are qualified for the Alaska Department of Environmental Conservation Operator-in-Training Certification examinations. Completion of this degree provides the education necessary to meet the postsecondary education requirements for level 3 water treatment and wastewater treatment certification. Students may also qualify for entry-level employment in water/wastewater utilities or as environmental technicians.

MATH S105 Intermediate Algebra 4

Social Science
SOC S102 Science, Technology and Society 3

MAJOR REQUIREMENTS 44

CIOS S135 Using Spreadsheets in the Workplace 1
ENVT S101 Introduction to Environmental Technology 3
ENVT S103 Applied Environmental Regulation 2
ENVT S110 Drinking Water Systems 3
ENVT S111 Wastewater Systems 3
ENVT S120 Utility Management 3
ENVT S130 Basic Sanitary Chemistry/Microbiology 2
ENVT S132 Basic Sanitary Chemistry/Microbiology 3
ENVT S204 Instrumentation 3
ENVT S210 Water Treatment 3
ENVT S211 Wastewater Treatment 3
ENVT S212 Hydraulics 3
ENVT S230 Intermediate Sanitary Chemistry/Microbiology Lab 2
ENVT S232 Intermediate Sanitary Chemistry/Microbiology 2
ENVT S240 Practicum 3
ENVT S250 Sanitary Survey Training 3

FISHERIES TECHNOLOGY, A.A.S.

Associate of Applied Science
Ketchikan

The Associate of Applied Science provides students with a broad educational and practical foundation in the field of fisheries technology. Students will be prepared for entry level employment in federal and state agencies, hatcheries, and the private sector.

Degree Requirements

The A.A.S. in Fisheries Technology requires a minimum of sixty credit hours and a GPA of 2.5. Of the 60 credits, students must complete 20 credits at the 200 level or above. Students must earn 6 credit hours of internship.
## Health Information Management, A.A.S.

**Associate of Applied Science**  
**Sitka, Distance Delivery**

The Health Information Management (HIM) program provides a course of study, using primarily distance delivery methodology, that prepares entry-level health information professionals. This program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education. Graduates are eligible to write the national examination; successful completion of the examination leads to the professional credential of Registered Health Information Technician (R.H.I.T.).

### Degree Requirements

The Health Information Management (HIM) A.A.S. degree program requires a minimum of sixty (60) semester credit hours. Graduation should occur within five (5) years from the date of enrollment or HIM professional courses may have to be repeated.

#### MINIMUM CREDIT HOURS

<table>
<thead>
<tr>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>60</td>
</tr>
</tbody>
</table>

#### GENERAL EDUCATION REQUIREMENTS (PG. 58)

17 credits

**Written Communication Skills**  
ENGL S111 Methods of Written Communication 3  
ENGL S212 Technical Report Writing 3  

**Oral Communication Skills**  
*Select one from the following (3 credits):*  
COMM S111 Fundamentals of Oral Communication* 3  
COMM S235 Small Group Communication and Team Building* 3  

*Grade C or better

**Computational Skills**  
*Select one from the following (4 credits):*  
MATH S105 Intermediate Algebra 4  
MATH S107 College Algebra 4  

**Science**  
*Select one from the following (4 credits):*  
ENVS S101 Introduction to Environmental Sciences 4  
BIOL S103 Biology and Society 4  
BIOL S104 Natural History of Alaska 4  
CHEM S103 Introduction to General Chemistry 4  

Students interested in pursuing a bachelor’s degree should take MATH S107. BIOL S105 and BIOL S106 is an allowable substitution for BIOL S103 and BIOL S104.

#### MAJOR REQUIREMENTS

<table>
<thead>
<tr>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>43</td>
</tr>
</tbody>
</table>

**CIOS S132A** Word Processing Concepts and Applications, Part A 1  
**CIOS S135** Using Spreadsheets in the Workplace 1  
**CIOS S140** Using Databases in the Workplace 1  
**FT S120** Fisheries of Southeast Alaska 3  
**FT S122** Fin Fish Culture I 3  
**FT S210** Field Methods and Safety in Fisheries Technology 4  
**FT S222** Fin Fish Culture II 3  
**FT S270** Introduction to Limnology 3  
**FT S272** Fisheries Management, Law, Economics 3  
**FT S273** Fundamentals of Fisheries Biology 4  
**FT S291** Fisheries Technology Internship 6  
**OCN S101** Introduction to Oceanography 3  

*Select 8 credits from the following:*  
**BA S166** Small Business Management 3  
**CIOS S235** Spreadsheet Concepts and Applications 3  
**CIOS S240** Database Concepts and Applications 3  
**MT S119** Skiff Operator 1  
**MT S120** Outboard Motor Maintenance 1  
**PE S103** Scuba Diving 1  
**STAT S107** Survey of Statistics 4  
**S S** Advisor-approved electives 0-4  
**S S** Any of the science GERs not taken above 4  

### Health Information Management, A.A.S.

**Associate of Applied Science**

**Sitka, Distance Delivery**

The Health Information Management (HIM) program
Health Sciences, A.A.S.

Associate of Applied Science
Juneau, Ketchikan, Sitka

The Associate of Applied Science in Health Sciences prepares students to enter either direct care careers or programs in nursing and/or the allied health professions. The degree includes a base in the university’s GER options as well as a science-based core, which provides the foundation needed to understand modern health care delivery. Students complete the requisites for admission to, and many of the co-requisites for completion of, varied professional health programs. Examples include those for nursing, public health, physical therapy, radiologic technology, behavioral health, disability and rehabilitation services, and pharmacy. Students are urged to consult early on the program materials and advisors for those health care program(s) to which they seek entry.

Admission Requirements
Students are admitted to the program after completing an application for admission and declaring a Health Sciences major. At the time of admission, students are assigned to a Health Science advisor.

Degree Requirements
The A.A.S. in Health Sciences requires a minimum of 19 courses, yielding 62 credits, with 16 of these in GERs, and at minimum another 46 credits in indicated Health Science and related subjects. A minimum of 25 credits must be at the 200-level or above. At least 15 credits must be taken at UAS. A minimum grade of C is required in all courses.

**MINIMUM CREDIT HOURS 62**

**GENERAL EDUCATION REQUIREMENTS (PG. 58) 16**

- Written Communication Skills
  - ENGL S111 Methods of Written Communication 3
- Select one from the following (3 credits):
  - ENGL S211 Intermediate Composition: Writing about Literature 3
  - ENGL S212 Technical Report Writing 3
- Oral Communication Skills
  - COMM S111 Fundamentals of Oral Communication* 3
  - COMM S235 Small Group Communication and Team Building* 3
  - COMM S237 Interpersonal Communication* 3
  - COMM S241 Public Speaking* 3
- *Grade C or better

**Computational Skills**
- MATH S105 Intermediate Algebra (or higher) 4

**Select Science from the following (3 credits):**
- ANTH S101 Introduction to Anthropology 3
- ANTH S202 Cultural Anthropology 3
- PSY S101 Introduction to Psychology 3
- SOC S101 Introduction to Sociology 3

**MAJOR REQUIREMENTS 46**

- BIOL S111 Human Anatomy and Physiology-I 4
- BIOL S112 Human Anatomy and Physiology-II 4
- BIOL S240 Introductory Microbiology 4
- HS S101 Introduction to the Health Sciences 3
- HS S107 Planning Your Career in Healthcare 1
- HS / HIM S135 Medical Terminology 3
- HS S203 Science of Nutrition 3
- HS / HIM S270 Pathology 3
- HS S291 Health Sciences Internship 3
- PSY S250 Lifespan Development 3

**Select one from the following (3 credits):**
- HS S201 Public Health: Issues and Practice 3
- HS S206 Introduction to Environmental Health 3

**Select one from the following (3 credits):**
- HS S140 Basic Helping Skills in Human Services 3
- HS S274 Introduction to Behavioral Healthcare 3

**Select one from the following (3-9 credits):**
- HS S103 Personal Care Assistant Training 4
- HS S104 PCA to CNA Bridge 4
- HS S105 Certified Nurses Aide Training 9
- HS S118 Emergency Trauma Technician-First Responder 3
- HS S119 Emergency Medical Technician-I 6
- or all three of the following:
  - HS S141 Introduction to Radiologic Technology and Patient Care 3
  - HS S150 Radiation Protection for Non-Imaging Professionals 3
  - HS S151 Medical Imaging Physics 2

**Select one from the following (3-8 credits):**
- BIOL S103 Biology and Society 4
- S Advisor-approved elective* 3
- or both
  - BIOL S105 Fundamentals of Biology I 4
  - BIOL S106 Fundamentals of Biology II 4

*Health sciences, biology, chemistry, statistics or social sciences; only for students who had biology with lab in high school.

**Select one from the following (3-8 credits):**
- CHEM S103 Introduction to General Chemistry 4
- S Advisor-approved elective** 3
- or both
  - CHEM S105 General Chemistry I 4
  - CHEM S106 General Chemistry II 4

**Health sciences, biology, chemistry, statistics or social sciences; only for students who had chemistry with lab in high school.**
Nursing through UAA, A.A.S.

Associate of Applied Science
University of Alaska Anchorage
Juneau, Ketchikan, Sitka

Cohorts of nursing students will be admitted into the University of Alaska Anchorage (UAA) A.A.S. degree in Nursing every two years at all three UAS campuses. Non-nursing pre-requisite and co-requisite courses can be obtained at any of the three UAS campuses while the nursing courses themselves will be distance delivered by UAA to UAA-admitted students at these same locations. Most of the nursing clinicals can be completed locally. Students will need to travel to Anchorage at their own expense for additional clinical experience. Some of the relevant details are listed below, but more important information can be obtained from local advisors listed below or can be found at: www.uas.alaska.edu/academics/undergrad/assoc/aas/nursing_uaa.html.

Admission Requirements

In addition to a Nurse Entrance Test and other requirements, applicants to the Associate of Applied Science (A.A.S.) in Nursing must have completed, with grades of C or above, high school algebra, biology with a lab and chemistry with a lab. Equivalent college-level courses can be used in lieu of these high school requirements and are available at the Juneau, Ketchikan, or Sitka campuses of UAS. They are:

- **CHEM S103 Introduction to General Chemistry** 4
- **Select one from the following (4 credits):**
  - **BIOL S111 Human Anatomy and Physiology** 4
  - **BIOL S103 Biology and Society** 4
- **Select one from the following (4 credits):**
  - **MATH S055 Fundamentals of Algebra** 4
  - **MATH S105 Intermediate Algebra** 4

Degree Requirements

A minimum of 70 credits is required for the A.A.S. in Nursing. The General Education Requirement coursework (a minimum of 15 credits) is offered at all three UAS campuses as are the non-nursing co-requisite Major Requirements (a minimum of 18 credits). Nursing courses (NURS) in the Major Requirements (totaling 37 credits) are delivered by UAA through the use of Internet-based technologies and group conferences via distance with faculty. The clinical instruction portion of these courses is offered primarily on site in Juneau, Ketchikan, or Sitka. Additional clinical instruction opportunities will be provided in Anchorage.

### MINIMUM CREDIT HOURS

<table>
<thead>
<tr>
<th>REQUIREMENTS</th>
<th>CREDITS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GENERAL EDUCATION REQUIREMENTS (PG. 58)</strong></td>
<td>15</td>
</tr>
<tr>
<td>Written Communication Skills</td>
<td></td>
</tr>
<tr>
<td>ENGL S111 Methods of Written Communication</td>
<td>3</td>
</tr>
<tr>
<td>ENGL S211 Intermediate Composition: Writing About Literature</td>
<td>3</td>
</tr>
<tr>
<td>Oral Communication Skills</td>
<td></td>
</tr>
<tr>
<td><strong>Select one from the following (3 credits):</strong></td>
<td></td>
</tr>
<tr>
<td>COMM S111 Fundamental Oral Communication*</td>
<td>3</td>
</tr>
<tr>
<td>COMM S237 Interpersonal Communication*</td>
<td>3</td>
</tr>
<tr>
<td>*Grade C or better</td>
<td></td>
</tr>
<tr>
<td>Social Science</td>
<td></td>
</tr>
<tr>
<td>___ S___ Advisor-approved GER* (pg. 58)</td>
<td>3</td>
</tr>
<tr>
<td>*PSY S101 is advisable</td>
<td></td>
</tr>
<tr>
<td>Other Skills</td>
<td></td>
</tr>
<tr>
<td>___ S___ Advisor-approved GER (pg. 58)</td>
<td>3</td>
</tr>
<tr>
<td><strong>NON-NURSING MAJOR REQUIREMENTS</strong></td>
<td></td>
</tr>
<tr>
<td>BIOL S111 Human Anatomy and Physiology I</td>
<td>4</td>
</tr>
<tr>
<td>BIOL S112 Human Anatomy and Physiology II</td>
<td>4</td>
</tr>
<tr>
<td>BIOL S240 Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>HS S203 Science of Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>PSY S250 Lifespan Development</td>
<td>3</td>
</tr>
<tr>
<td><strong>MAJOR REQUIREMENTS</strong></td>
<td>37</td>
</tr>
<tr>
<td>NURS A120 Nursing Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>NURS A120L Nursing Fundamentals Lab</td>
<td>4</td>
</tr>
<tr>
<td>NURS A125 Adult Nursing I</td>
<td>3</td>
</tr>
<tr>
<td>NURS A125L Adult Nursing I Lab</td>
<td>4</td>
</tr>
<tr>
<td>NURS A180 Basic Nursing Pharmacology</td>
<td>3</td>
</tr>
<tr>
<td>NURS A220 Perinatal Nursing</td>
<td>2</td>
</tr>
<tr>
<td>NURS A220L Perinatal Nursing Lab</td>
<td>2</td>
</tr>
<tr>
<td>NURS A221 Advanced Perenteral Therapy Lab</td>
<td>1</td>
</tr>
<tr>
<td>NURS A222 Pediatric Nursing</td>
<td>2</td>
</tr>
<tr>
<td>NURS A222L Pediatric Nursing Lab</td>
<td>2</td>
</tr>
<tr>
<td>NURS A225 Adult Nursing II</td>
<td>3</td>
</tr>
<tr>
<td>NURS A225L Adult Nursing II Lab</td>
<td>3</td>
</tr>
<tr>
<td>NURS A250 Psychiatric Nursing</td>
<td>2</td>
</tr>
<tr>
<td>NURS A250L Psychiatric Nursing Lab</td>
<td>2</td>
</tr>
<tr>
<td>NURS A255 Staff Nurse: Legal, Ethical, and Organizational Issues</td>
<td>1</td>
</tr>
</tbody>
</table>

If you are interested in the A.A.S. degree in Nursing, obtainable from UAA while remaining on a UAS campus, you must contact a local advisor:

Marianne Stillner, Assistant Professor of Nursing
UAS, Juneau Campus
(907) 796-6125
marianne.stillner@uas.alaska.edu
Power Technology, A.A.S.

Associate of Applied Science

Juneau

**MINIMUM CREDIT HOURS** 60-64

**GENERAL EDUCATION REQUIREMENTS (PG. 58)** 16

Written Communication Skills
ENGL S111 Methods of Written Communication 3
Select one from the following (3 credits):
ENGL S211 Intermediate Composition: Writing About Literature 3
ENGL S212 Technical Report Writing 3
Oral Communication Skills
Select one from the following (3 credits):
COMM S111 Fundamentals of Oral Communications* 3
COMM S235 Small Group Communication and Team Building* 3
COMM S237 Interpersonal Communication* 3
COMM S241 Public Speaking* 3
*Grade C or better

Computational Skills
MATH S105 Intermediate Algebra (or higher) 4

Other Skills
____ S____ Advisor-approved GER* 3-4

*Humanities, mathematics, natural sciences or social sciences course. Course must be at the 100-level or above.

Automotive Emphasis

This degree is a vocational training program for men and women interested in securing employment in automotive technician positions. Graduation can lead to employment in automobile dealerships, fleet service operations, national chain automotive service stores, franchise repair shops, and independent repair shops. Students expecting to gain employment in this industry will need a valid driver’s license with a good driving record, and a personal tool box meeting industry standards (contact department for details).

Admission Requirements

Students will be admitted to the Automotive Emphasis program when they have met all UAS admissions requirements in addition to the following requirements:

1. Submission of a resume of work experiences and a letter stating why the individual wants to become an automotive technician.
2. Completion of a pre-admission interview.

**MINIMUM CREDIT HOURS** 64

**MAJOR REQUIREMENTS** 48
AUTO S102 Introduction to Automotive Technology 3
AUTO S121 Auto Electrical I 3
AUTO S122 Engine Performance I 3
AUTO S131 Auto Electrical II 3
AUTO S140 Auto Engine Repair 3
AUTO S152 Brake Systems 4
AUTO S160 Manual Drive Train and Axles 3
AUTO S162 Suspension and Alignment 4
AUTO S194 Auto Practicum I (1-6 credits variable)* 6
AUTO S202 Fuel and Emission Systems 4
AUTO S222 Engine Performance II 3
AUTO S225 Auto Heating and A/C 3
AUTO S227 Auto Electrical III 3
AUTO S260 Electronic and Automatic Transmissions 3
*6 credits needed to graduate

Diesel Emphasis

This degree is a vocational training program for men and women interested in securing employment working with various diesel engine applications such as (but not limited to):

Logging equipment Rock crushers
Charter boats Marine main propulsion
Trucking Sawmills
AC generators/switch gear Tour vessels
Tour buses Marine auxiliary systems
Construction equipment Hydraulic systems
Earth moving machines Mining machines
Cold storage systems

**MINIMUM CREDIT HOURS** 60

**MAJOR REQUIREMENTS** 44
DESL S105 Diesel Fuel Systems 3
DESL S110 Diesel Engines 6
DESL S125 Basic Hydraulics 3
DESL S130 Refrigeration and Air Conditioning 2
DESL S171 Heavy Duty Electrical Systems 3
DESL S180 AC Power Generation 3
DESL S250 Heavy Duty Brakes and CDL Preparation 2
DESL S255 Heavy Duty Suspension and Alignment 2
DESL S260 Heavy Duty Power Trains 3
DESL S261 Marine Auxiliary Systems 3
DESL S262 Marine Auxiliary Systems Lab 2
DESL S263 Marine Transmissions 3
DESL S291 Internship 3
WELD S120 Basic Welding I 3
Select one from the following (3 credits):
WELD  S121  Arc Welding I  3
WELD  S122  Arc Welding II  3

USCG Documented Marine Oiler Emphasis

This USCG Documented Marine Oiler A.A.S. degree is for both men and women who want to get the training needed to begin a career in marine transportation (engine room). With successful completion of this program and a written USCG examination, students receive a USCG Merchant Marine Document (MMD Z-card) with an Oiler endorsement, which qualifies them for employment in the engine rooms of large U.S. flagged vessels anywhere in the world. Oiler is the “qualified” entry level position in the engine room which has a career path that culminates in the chief engineer’s position. Program graduates can expect to find employment with the state ferry system, private ferries, cruise ships, seafood processors, tug boats, or any other large sea going vessels. This degree incorporates a 120 day (1440 hour) internship at sea as part of the requirements.

Incoming students will have to pass a USCG background check, drug screen, and physical agility exam during the first semester. They will also have to pass a complete physical exam prior to getting the Oiler Z-card. English and mathematics placement exams are also required in the first semester.

MINIMUM CREDIT HOURS  61

MAJOR REQUIREMENTS  45
DESL  S105  Diesel Fuel Systems  3
DESL  S110  Diesel Engines  6
DESL  S125  Basic Hydraulics  3
DESL  S130  Air Conditioning and Refrigeration  2
DESL  S171  Heavy Duty Electrical Systems  3
DESL  S180  AC Power Generation  3
DESL  S261  Marine Auxiliary Systems  3
DESL  S262  Marine Auxiliary Systems Lab  2
DESL  S263  Marine Transmissions  3
DESL  S291A  Alaska Marine Highway Oiler Internship (1440 hours)  12
MT  S129  Basic Safety Training  2
WELD  S120  Basic Welding  3
# Bachelor’s Degrees

## Biology, B.A.

### Bachelor of Arts

**Juneau**

The B.A. degree in Biology provides students with the opportunity to learn biological principles and skills in lecture, laboratory and field courses with a breadth in liberal arts and sciences.

### Admission Requirements

Applicants enter as pre-majors and will be considered for full admission to the B.A. in Biology after completion of the following:

1. MATH S107 (may be met by placement examination)
2. ENGL S111.
3. BIOL S105 and BIOL S106
4. High school chemistry, or a C or higher in either CHEM S103 or CHEM S105.

When a student becomes a major in Biology, he or she is assigned a faculty advisor. The student and faculty advisor plan the student’s curriculum, and the advisor’s signature is required on registration documents.

### Degree Requirements

Candidates must complete the General Education Requirements (GERs) as well as the specific program requirements listed below for a minimum of 120 credit hours. Courses in a degree program may be counted only once. Courses used to fulfill the major requirements cannot be used to fulfill the GERs. Specific requirements for GERs are listed below. The degree must include 48 credits of upper-division (300 or above) courses. To satisfy the residency requirement, 30 credits must be completed at UAS, including 24 upper-division credits. Candidates who expect to teach in public secondary schools must be sure that they meet education requirements.

### MINIMUM CREDIT HOURS

<table>
<thead>
<tr>
<th>MINIMUM CREDIT HOURS</th>
<th>120</th>
</tr>
</thead>
<tbody>
<tr>
<td>GENERAL EDUCATION REQUIREMENTS (PG. 58)</td>
<td>36</td>
</tr>
</tbody>
</table>

The following courses must be included in the GERs for a B.A. in Biology:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL S105</td>
<td>Fundamentals of Biology I</td>
</tr>
<tr>
<td>BIOL S106</td>
<td>Fundamentals of Biology II</td>
</tr>
<tr>
<td>MATH S107</td>
<td>College Algebra</td>
</tr>
</tbody>
</table>

### MAJOR REQUIREMENTS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL S271</td>
<td>Ecology</td>
</tr>
<tr>
<td>BIOL S362</td>
<td>Genetics</td>
</tr>
<tr>
<td>BIOL S482</td>
<td>Evolution</td>
</tr>
<tr>
<td>CHEM S105</td>
<td>General Chemistry I</td>
</tr>
<tr>
<td>CHEM S106</td>
<td>General Chemistry II</td>
</tr>
<tr>
<td>MATH S108 or higher</td>
<td>3-4</td>
</tr>
<tr>
<td>STAT S273</td>
<td>Elementary Statistics</td>
</tr>
</tbody>
</table>

**select**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL S310</td>
<td>Animal Physiology</td>
</tr>
<tr>
<td>or</td>
<td>CHEM S____ Any Upper Division Course</td>
</tr>
</tbody>
</table>

**Select two from the following (6 credits):**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTR S225</td>
<td>General Astronomy</td>
</tr>
<tr>
<td>ENVS S101 or higher</td>
<td>1-4</td>
</tr>
<tr>
<td>GEOL S104 or higher</td>
<td>3-4</td>
</tr>
<tr>
<td>PHYS S102 or higher</td>
<td>3-4</td>
</tr>
<tr>
<td>STAT S373 or higher</td>
<td>3-4</td>
</tr>
</tbody>
</table>

### BIOLOGY ELECTIVES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL S215</td>
<td>Intro to Marine Biology</td>
</tr>
<tr>
<td>BIOL S239</td>
<td>Intro to Plant Biology</td>
</tr>
<tr>
<td>BIOL S300</td>
<td>Vertebrate Zoology</td>
</tr>
<tr>
<td>BIOL S305</td>
<td>Invertebrate Zoology</td>
</tr>
<tr>
<td>BIOL S375</td>
<td>Current Topics in Biology 2</td>
</tr>
<tr>
<td>BIOL S382</td>
<td>Wetlands Ecology</td>
</tr>
<tr>
<td>BIOL S384</td>
<td>Marine Mammalogy</td>
</tr>
<tr>
<td>BIOL S401</td>
<td>Phycology</td>
</tr>
<tr>
<td>BIOL S415</td>
<td>Physiology of Marine Animals</td>
</tr>
<tr>
<td>BIOL S426</td>
<td>Ornithology</td>
</tr>
<tr>
<td>BIOL S427</td>
<td>Introduction to Ichthyology</td>
</tr>
<tr>
<td>BIOL S441</td>
<td>Animal Behavior</td>
</tr>
<tr>
<td>BIOL S445</td>
<td>Vascular Plants of Southeast Alaska</td>
</tr>
<tr>
<td>BIOL S480</td>
<td>Aquatic Pollution</td>
</tr>
<tr>
<td>BIOL S481</td>
<td>Marine Ecology</td>
</tr>
<tr>
<td>BIOL S492</td>
<td>Biology Seminar</td>
</tr>
<tr>
<td>BIOL S495</td>
<td>Behavioral Ecology</td>
</tr>
</tbody>
</table>

### BREADTH ELECTIVES

To include upper-division courses as needed. Students are encouraged to include a minor or double major.

**To fulfill teacher education requirements, seek advising from the UAS School of Education and include the following:**

1. Major Requirements: Survey of Physics (PHYS S102) and a course in earth and/or space sciences.
2. Breadth Electives: Organic and Biological Chemistry I (CHEM S341), Organic and Biological Chemistry II (CHEM S342), Introductory Microbiology (BIOL S240).

---

**[91]**
# Biology, B.S.

**Bachelor of Science**

**Juneau**

The Bachelor of Science degree in Biology provides students the opportunity to learn biological principles and skills in lecture, laboratory, and field courses. Student research is also emphasized throughout the program. Program faculty are actively involved in a wide range of disciplines, including marine ecology, behavioral ecology, marine mammalogy, crustacean physiology, and marine algology. The location of the University provides students with a “natural laboratory” that includes extensive marine habitat, rainforest, wetlands, and ice fields all within walking distance of the classrooms. A small student-to-professor ratio ensures a more personal approach to learning than is possible at larger universities. The Bachelor of Science program in biology comprises a core curriculum generally found nationwide in bachelor of science biology programs. Additional information about the biology program can be found at www.uas.alaska.edu/biology.

## Admission Requirements

Applicants enter as premajors and will be considered for full admission into the Bachelor of Science in Biology program after completion of the following:

1. MATH S107 (May be met by placement examination)
2. ENGL S111
3. BIOL S105 and BIOL S106
4. High School Chemistry or CHEM S103 with a C or higher

When a student enters the major in Biology he or she is assigned a faculty advisor. The student and faculty advisor plan the student’s curriculum, and the advisor’s signature is required on registration documents.

## Degree Requirements

Candidates must complete the General Education Requirements (GERs) as well as the specific program requirements listed below for a minimum of 120 credit hours. Courses in a degree program may be counted only once. Courses used to fulfill the major requirements cannot be used to fulfill the GERs. Specific recommendations for the GERs in Biology are listed below. Degree must include 48 credit hours of upper-division (300 or above) courses, 24 of which must be completed at UAS.

## Minimum Credit Hours

<table>
<thead>
<tr>
<th>Course or Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GENERAL EDUCATION REQUIREMENTS (PG. 58)</strong></td>
<td>36</td>
</tr>
<tr>
<td>Must include:</td>
<td></td>
</tr>
<tr>
<td>MATH S200 Calculus I*</td>
<td>4</td>
</tr>
<tr>
<td>BIOL S105 Fundamentals of Biology I</td>
<td>4</td>
</tr>
<tr>
<td>BIOL S106 Fundamentals of Biology II</td>
<td>4</td>
</tr>
<tr>
<td>*Prerequisites include MATH S107 and MATH S108</td>
<td></td>
</tr>
<tr>
<td><strong>MAJOR REQUIREMENTS</strong></td>
<td>43</td>
</tr>
<tr>
<td>BIOL S271 Ecology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL S310 Animal Physiology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL S362 Genetics</td>
<td>4</td>
</tr>
<tr>
<td>BIOL S482 Evolution</td>
<td>4</td>
</tr>
<tr>
<td>CHEM S105 General Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM S106 General Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>CHEM S341 Organic and Biological Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM S342 Organic and Biological Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>STAT S273 Elementary Statistics</td>
<td>3</td>
</tr>
<tr>
<td>select both</td>
<td></td>
</tr>
<tr>
<td>PHYS S103 College Physics I</td>
<td>4</td>
</tr>
<tr>
<td>PHYS S104 College Physics II</td>
<td>4</td>
</tr>
<tr>
<td>or both</td>
<td></td>
</tr>
<tr>
<td>PHYS S211 General Physics I</td>
<td>4</td>
</tr>
<tr>
<td>PHYS S212 General Physics II</td>
<td>4</td>
</tr>
<tr>
<td><strong>BIOLOGY ELECTIVES</strong></td>
<td>20</td>
</tr>
<tr>
<td>Select four from the following (20 credits):</td>
<td></td>
</tr>
<tr>
<td>BIOL S215 Introduction to Marine Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL S239 Introduction to Plant Biology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL S300 Vertebrate Zoology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL S305 Invertebrate Zoology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL S373 Conservation Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL S375 Current Topics in Biology*</td>
<td>4</td>
</tr>
<tr>
<td>BIOL S382 Wetlands Ecology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL S384 Marine Mammalogy</td>
<td>4</td>
</tr>
<tr>
<td>BIOL S396 Field Studies in Behavior and Ecology**</td>
<td>1-6</td>
</tr>
<tr>
<td>BIOL S398/498 Research**</td>
<td>1-6</td>
</tr>
<tr>
<td>BIOL S401 Phycology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL S415 Physiology of Marine Animals</td>
<td>4</td>
</tr>
<tr>
<td>BIOL S426 Ornithology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL S427 Introduction to Ichthyology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL S441 Animal Behavior</td>
<td>4</td>
</tr>
<tr>
<td>BIOL S445 Vascular Plants of Southeast Alaska</td>
<td>3</td>
</tr>
<tr>
<td>BIOL S480 Aquatic Pollution</td>
<td>3</td>
</tr>
<tr>
<td>BIOL S481 Marine Ecology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL S492 Biology Seminar*</td>
<td>2</td>
</tr>
<tr>
<td>BIOL S495 Behavioral Ecology</td>
<td>3</td>
</tr>
<tr>
<td>*Only 4 credits from BIOL S375 and 2 credits from BIOL S492 may be applied toward the Biology electives. Additional credits may be applied toward Electives.</td>
<td></td>
</tr>
<tr>
<td><strong>ELECTIVES</strong></td>
<td>21</td>
</tr>
<tr>
<td>Must include a minimum of 12 credits of upper division courses.</td>
<td></td>
</tr>
</tbody>
</table>
**Business Administration, B.B.A.**

**Bachelor of Business Administration**

**Juneau, Distance Delivery**

The B.B.A. program provides a course of study that (1) prepares students for professional positions in private or public business fields, (2) prepares them to evaluate and exploit viable business opportunities, and (3) prepares them for graduate study in business and related disciplines.

**Admission Requirements**

To be formally admitted to the B.B.A. program, a student must be in good standing at the University.

**Degree Requirements**

Candidates must complete the general education requirements (GERs) as well as the specific program requirements listed in this section for a minimum of 120 credit hours. Any given course may be counted as fulfilling more than one requirement in a degree program, but the credit hours can only be counted once. Degrees must include 42 credits of upper-division (300 or above) courses, 24 of which must be completed at UAS. Courses used as major requirements cannot be used as GERs.

A minimum grade of C must be earned in math (through MATH S107) and communication classes taken in the general education requirements. In addition, all students in the Bachelor of Business Administration (B.B.A.) program must either test out of or earn a C or better in 3 hours of CIOS electives, 3 hours of CIOS spreadsheet or database courses, STAT S273, major and emphasis courses, and BA 462, Capstone. Students should complete the computer courses within their first sixty (60) credit hours.

Students in any of the business programs who are deemed deficient in any of the competency areas may be required to take additional courses to strengthen their skills before graduation. Any such additional courses can usually be counted as a program elective. Requiring supplementary course work will be considered if two different faculty members indicate a student has a weakness in the same outcome area.

**MINIMUM CREDIT HOURS** 120

**GENERAL EDUCATION REQUIREMENTS (PG. 58)** 35

*Must include:*

- MATH S107 College Algebra (or higher) 4
- ECON S201 Macroeconomics 3
- ECON S202 Microeconomics 3
- ___ S ____ Electives 16

**MAJOR REQUIREMENTS** 57–72

**LOWER DIVISION 1**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA 5151</td>
<td>Introduction to Management</td>
<td>3</td>
</tr>
<tr>
<td>BA 5152</td>
<td>Business Foundation Simulation *</td>
<td>3</td>
</tr>
</tbody>
</table>

*Not required for accounting emphasis

**LOWER DIVISION 2**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT S201</td>
<td>Principles Financial Acct</td>
<td>3</td>
</tr>
<tr>
<td>ACCT S202</td>
<td>Principles Managerial Acct</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S260</td>
<td>Business Communications</td>
<td>3</td>
</tr>
</tbody>
</table>

**Select one from the following (3 credits):**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIOS S235</td>
<td>Spreadsheet Concepts &amp; App</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S240</td>
<td>Database Concepts &amp; App</td>
<td>3</td>
</tr>
</tbody>
</table>

**Select one from the following (3 credits):**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA S374</td>
<td>Intro to Quantitative Methods</td>
<td>3</td>
</tr>
<tr>
<td>STAT S273</td>
<td>Elementary Statistics</td>
<td>3</td>
</tr>
<tr>
<td>___ S ____ Electives</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

Note: Lower division courses must be substantially completed before admission to upper division courses. In cases where some lower division courses have not yet been completed, permission is required to take upper division core or emphasis classes.

**UPPER DIVISION 1**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA S301</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>BA S325</td>
<td>Financial Management</td>
<td>3</td>
</tr>
<tr>
<td>BA S330</td>
<td>Legal Environment of Business</td>
<td>3</td>
</tr>
<tr>
<td>BA S343</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
</tbody>
</table>

**Select one from the following (3 credits):**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT S316</td>
<td>Accounting Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>BA S310</td>
<td>Management Information Systems</td>
<td>3</td>
</tr>
</tbody>
</table>

**Select one from the following (3 credits):**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA S375</td>
<td>Project Management</td>
<td>3</td>
</tr>
<tr>
<td>BA S412</td>
<td>Operations Management</td>
<td>3</td>
</tr>
</tbody>
</table>

**UPPER DIVISION 2**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA S462</td>
<td>Capstone: Strategic Management</td>
<td>3</td>
</tr>
<tr>
<td>BA S490</td>
<td>Political &amp; Social Environment</td>
<td>3</td>
</tr>
<tr>
<td>BA S498</td>
<td>Applied Business Research*</td>
<td>3</td>
</tr>
<tr>
<td>___ S ____ Advisor-approved electives**</td>
<td>6–9</td>
<td></td>
</tr>
<tr>
<td>___ S ____ Electives</td>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>

*Not required for accounting emphasis

**School of Management electives (BA, ACCT, LAWS)

**EMPHASIS AREAS** 15 – 21

**Business Administration Emphasis Areas**

Select one from the following emphasis areas:

**Accounting**

**EMPHASIS REQUIREMENTS** 21

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT S310</td>
<td>Income Tax for Individuals</td>
<td>3</td>
</tr>
<tr>
<td>ACCT S311</td>
<td>Intermediate Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>ACCT S312</td>
<td>Intermediate Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>ACCT S342</td>
<td>Advanced Managerial Cost Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACCT S452</td>
<td>Auditing</td>
<td>3</td>
</tr>
</tbody>
</table>
Select two from the following (6 credits):
ACCT S222 Computer Automated Accounting 3
ACCT S379 Governmental Accounting 3
ACCT S454 Fraud & Forensic Examination 3
BA S315 Personal Finance 3

Entrepreneurship

EMPHASIS REQUIREMENTS 15
BA S363 Marketing Communications 3
BA S427 Marketing & Entrepreneurial Financial Management 3
BA S485 New Business Ventures 3

Select one from the following (3 credits):
BA S351 Organizational Behavior 3
BA S361 Human Resource Management 3

Select one from the following (3 credits):
BA S332 Contracts 3
BA S360 Business Organizations 3

Healthcare Management

EMPHASIS REQUIREMENTS 15
BA S305 U.S. Healthcare Systems 3
BA S362 Healthcare Human Resource Mgmt 3
BA S410 Healthcare Information Systems 3
BA S425 Financial Management for Healthcare Orgs 3
BA S435 Healthcare Law and Ethics 3

Human Resources Management

EMPHASIS REQUIREMENTS 15
BA S351 Organizational Behavior 3
BA S361 Human Resource Management 3
BA S426 Human Resource Financial Management 3
BA S461 Labor-Management Relations 3
BA S466 Strategic Human Resource Management 3

Marketing

EMPHASIS REQUIREMENTS 15
BA S311 Buyer Behavior 3
BA S363 Marketing Communications 3
BA S427 Marketing & Entrepreneurial Financial Management 3
BA S446 Service Marketing 3

Select one from the following (3 credits)
BA S441 Retail Management 3
BA S465 Strategic Marketing & Management for Non-profits 3

Elementary Education, B.A.

Bachelor of Arts
Distance Delivered
The Bachelor of Arts in Elementary Education is a four-year distance delivered undergraduate degree program preparing students for recommendation in the state of Alaska for initial teaching certification in grades K-8. This program is for students in rural Alaskan communities and others who desire the flexibility of a distance program. Students in this program must be self-directed learners, have access to high speed internet connections, and prepare for a 9-month intensive student teaching experience in their senior year. Students are assessed relative to national and state standards, including National Council for Accreditation of Teacher Education (NCATE) standards, the Alaska Teacher Standards, the Alaska Student Content Standards, the Alaska Standards for Culturally Responsive Schools, and the Association for Childhood Education International (ACEI) Standards.

The degree requirements are interdisciplinary and provide breadth in the content areas necessary for successful teaching at an elementary level and depth in the opportunities to connect theory and practice in a variety of real classroom, school, and community contexts.

The main components of this program include: (1) subject area coursework in UAS General Education Requirements (GERs); (2) additional subject area coursework in those areas important for successful teaching at an elementary level; (3) foundation courses in education with practical experiences in the schools; and (4) a capstone year-long experience where the professional education courses are integrated with field experiences and student teaching. The spring semester of the capstone senior year can be available by distance in Southeast Alaska pending advisor approval.

Contact: Dr. Jeffrey Lofthus
(907) 796-6404
jeffrey.lofthus@uas.alaska.edu

Admission Requirements

Applicants enter as pre-majors and will be considered for full admission into the Bachelor of Arts in Elementary Education program after completing a change of major form. Full admission requires:

1. Completion of GERs
2. Minimum GPA of 2.75
3. Completion of 60 credits (all courses C or higher)
4. Praxis I exam taken
5. Mathematics competency (MATH S205 and MATH S206)
6. Writing competency

Admission to Methods and Internship (Capstone Year)

In addition to the requirements for admission to major status all students entering the senior capstone year are required to have successfully completed the following:

1. GPA of 2.75
2. Successful interview with advisor
3. Satisfactory review of Professional Dispositions Progress Report completed by instructors
4. Successful completion of all education courses with grades of C or better
5. Fingerprinting and criminal background check
6. A current resume and letter of introduction to future host teacher and principal
7. Praxis I exam scores meeting Alaska cut scores
8. Passing CBEST scores in reading, writing, mathematics may be submitted in lieu of passing Praxis I scores. CBEST qualifying test score 123 or higher total score; no individual score less than 37
9. One letter of recommendation from someone other than an education professor, who can speak to the student’s professional dispositions and potential as a future elementary teacher

**Exit Criteria**

2.75 GPA, approved portfolio based on the CTE vision and conceptual framework, Alaska State Standards, and national standards to be completed in the senior capstone year as part of methods courses and student teaching, and successful completion of Praxis II exam-Elementary Content Knowledge 0014 meeting Alaska certification cut scores.

**Degree Requirements**

Students must complete the GERs as well as the specific program requirements as listed for a minimum of 128 credit hours. Courses in a degree program may be counted only once. Courses used to fulfill the major requirements cannot be used to fulfill the GERs. Specific recommendations for the GERs in Elementary Education are listed below. Degree must include 48 credit hours of upper-division (300 or above) courses, 24 of which must be completed at UAS.

**MINIMUM CREDIT HOURS** 128

**GENERAL EDUCATION REQUIREMENTS (PG. 58)** 40

**Written Communication Skills**
ENGL S111  Methods of Written Communication 3
ENGL S211  Intermediate Composition: Writing About Literature 3

**Oral Communication Skills**
Select one from the following (3 credits):
COMM S111  Fundamentals of Oral Communication* 3
COMM S235  Small Group Communication and Team Building* 3
COMM S237  Interpersonal Communication* 3
COMM S241  Public Speaking* 3
*Grade C or better

**Computational Skills**
Select one from the following (4 credits):
MATH S107  College Algebra 4
STAT S107  Survey of Statistics 4
Bachelor's Degrees

Other Skills
___ S___ Advisor-approved elective 4

MAJOR REQUIREMENTS 56
ED S222 Orientation to the Teaching Profession 3
ED S230 Introduction to Educational Technology 3
ED S302 Foundations of Literacy and Language Development 3
ED S320A Art in the K-8 Curriculum 1
ED S320B Physical Education in the K-8 Curriculum 1
ED S320C Music in the K-8 Curriculum 1
ED S320D Drama in the K-8 Curriculum 1
ED S320E Health in the K-8 Curriculum 1
ED S333 The Learner and the Learning Process 3
ED S380 Multicultural Education 3
ED S416 Teaching Literacy in the K-8 Curriculum 4
ED S417 Teaching Social Studies in the K-8 Curriculum 2
ED S427 Teaching Math in the K-8 Curriculum 3
ED S428 Teaching Science in the K-8 Curriculum 2
ED S448 Elementary Classroom Management in K-8 Classrooms 3
ED S452 Student Teaching 9
ED S460 Integrated Curriculum and Instruction 2
EDSE S482 Inclusive Classrooms for All Children 3
ED S494A Applications of Teaching: Field Work 3
ED S498 Professional Portfolio Preparation 2

Select one from the following (3 credits):
ENGL S499 Thesis 3
HUM S499 Humanities Capstone 3

EMPHASIS REQUIREMENTS 30
English Emphasis Areas

Creative Writing Emphasis

ENGL S261 Introduction to Creative Writing 3
ENGL S311 Advanced Composition 3
ENGL S362 Memoir Writing 3
ENGL S363 Nature Writing 3
ENGL S461 Advanced Creative Writing* 6

Select 4 from the following (12 credits):
COMM S340 Media Studies 3
COMM S346 From Page to Stage: Oral Interpretation 3
ENGL S302 Masterpieces of World Literature 3
ENGL S303 Literature of the Environment 3
ENGL S305 Children's Literature 3

*Students must take a minimum of 16 credits in the study of a single world or Alaska Native language.
ENGL S340   English Language Studies                             3
ENGL S365   Literature of Alaska: Native and Non-Native          3
Perspectives
ENGL S370   Native American Literature                           3
ENGL S414   Research Writing                                      3
ENGL S418   Advanced Themes in Literature: ST                   3
ENGL S419   Major Authors: ST                                     3
ENGL S420   Genre Studies: ST                                     3
ENGL S421   Women and Literature: ST                             3
ENGL S422   Literary Periods: ST                                 3
ENGL S423   Ecocriticism                                         3

*Must be repeated twice for a total of 6 credits

Literature Emphasis

The Literature emphasis area requires at least 12 credits of literature courses focusing on literature before 1900. See the course schedule for information on which courses have been designated as pre-1900 each semester. No more than 12 credits of literature courses may be in writing or communication (ENGL S311, S362, S363, S461 or COMM S340, S446).

EMPHASIS REQUIREMENTS 30
ENGL S311   Advanced Composition                               3
Select four from the following (12 credits):
COMM S340   Media Studies                                       3
COMM S346   From Page to Stage: Oral Interpretation              3
ENGL S302   Masterpieces of World Literature                    3
ENGL S303   Literature and the Environment                      3
ENGL S305   Children's Literature                               3
ENGL S340   English Language Studies                           3
ENGL S362   Memoir Writing                                      3
ENGL S363   Nature Writing                                      3
ENGL S365   Literature of Alaska                                3
ENGL S370   Native American Literature                          3
Select five from the following (15 credits):
ENGL S414   Research Writing                                    3
ENGL S418   Advanced Themes in Literature: ST                   3
ENGL S419   Major Authors: ST                                    3
ENGL S420   Genre Studies: ST                                    3
ENGL S421   Women and Literature: ST                             3
ENGL S422   Literary Periods: ST                                 3
ENGL S423   Ecocriticism                                        3
ENGL S461   Advanced Creative Writing                           3

Literature and the Environment Emphasis

The Literature and the Environment emphasis area requires at least 12 credits of literature courses focusing on literature before 1900. See the course schedule for information on which courses have been designated as pre-1900 each semester.

EMPHASIS REQUIREMENTS 30
ENGL S303   Literature and the Environment                      3
ENGL S311   Advanced Composition                               3
ENGL S423   Ecocriticism                                        3
Select three from the following (9 credits):
ENGL S363   Nature Writing                                      3
ENGL S365   Literature of Alaska                                3
ENGL S370   Native American Literature                          3
PHIL S271   Perspectives on the Natural World                   3
Select four from the following (12 credits):
ENGL S414   Research Writing                                    3
ENGL S418   Advanced Themes in Literature: ST                   3
ENGL S419   Major Authors: ST                                    3
ENGL S420   Genre Studies: ST                                    3
ENGL S421   Women and Literature: ST                             3
ENGL S422   Literary Periods: ST                                 3
ENGL S461   Advanced Creative Writing                           3

Environmental Science, B.S.

Bachelor of Science
Juneau

The main objective of the Environmental Science (ENVS) degree program is to produce graduates who are well educated in the processes and interactions that occur in and between the atmosphere, biosphere, lithosphere, and hydrosphere. To achieve this, the curriculum draws from a number of disciplines. Students have the opportunity to be trained in basic mathematical and scientific methods and the application of these methods in examining the relationships between natural processes and human endeavors. Please visit www.uas.alaska.edu/envs for the most current information about the program.

Disciplinary emphasis areas are listed in the breadth courses section. ENVS students can also earn a minor in Biology or Mathematics. This is especially desirable for students interested in becoming secondary science teachers or considering graduate school.

Admission Requirements

Admission to the ENVS degree program requires the completion of four years of high-school math and science courses or the equivalent UAS courses (PHYS S102, CHEM S103, MATH S107 and MATH S108).

When a student declares Environmental Science as a major they will be matched with an ENVS faculty advisor. Students should consult with their advisor for course selection and sequencing.

Degree Requirements

UAS students must fulfill all UAS General Education Requirements (GERs), and ENVS major requirements, breadth requirements, and upper-division electives for a minimum of 120 credit hours. Courses in a degree program may be applied to only one type of degree requirement. For instance, courses used to fulfill the major requirements cannot be used to fulfill the GERs. Specific recommendations for the GERs in Environmental Science are listed below. 48 of the 120 credit hours must be at the upper-division level (300 or above). 24 of the upper-division courses must be completed at UAS.
MINIMUM CREDIT HOURS 120

GENERAL EDUCATION REQUIREMENTS (PG. 58) 36

Students should consult with an advisor and select courses that satisfy prerequisites required in this degree program.

Must include:
ENVS S101 Introduction to Environmental Science 4
GEOL S104 Physical Geology 4
MATH S200 Calculus I 4

MAJOR REQUIREMENTS 48

BIOL S105 Fundamentals of Biology I 4
CHEM S105 General Chemistry I 4
CHEM S106 General Chemistry II 4
ENVS S310 Geographic Info Systems 3
ENVS S420 Atmospheric Science 3
GEOL S301 Geomorphology 4
GEOL S302 Hydrology 4
MATH S201 Calculus II 4

Select one from the following (4 credits):
CHEM S341 Organic and Biological Chemistry I 4
CHEM S350 Environmental Chemistry 4

Select one from the following (4 credits):
BIOL S271 Ecology 4
GEOL S271 Earth Materials 4

Select both
PHYS S103 College Physics I 4
PHYS S104 College Physics II 4

or both
PHYS S211 General Physics I 4
PHYS S212 General Physics II 4

Select from the following (2 credits minimum):
ENVS S491 Environmental Science Internship 1-4
ENVS S492 Environmental Science Seminar* 1
ENVS S498 Directed Research 1-6

BREADTH REQUIREMENTS 20

Select from the following (20 credits total):
ENVS S110 Intro to Geographic Information Systems 1
ENVS S111 Introduction to Differential Global Positioning Systems 1
ENVS S200 Hazardous Materials Management 3
ENVS S301 Soil Sciences 4
ENVS S311 Technical Writing for Science Majors 3
ENVS S402 Limnology 4
ENVS S403 Remote Sensing 3
ENVS S404 Snow Hydrology 4
ENVS S408 Biogeochemistry 3
ENVS S410 Advanced Geographic Information Systems 3
ENVS S491 Internship in ENVS Field 1-4
ENVS S492 Environmental Science Seminar* 1
ENVS S498 Research in Environmental Science 1-6
GEOL S300 Geology of Alaska 3
GEOL S310 Glaciation and Climate Change 3
GEOL S315 Glacier Surveying* 3
____ S____ Juneau Icefield Program courses** 3-9

*May be repeated once
**Juneau Icefield Research Program courses are offered in the summer only

Information Systems, B.S.

Bachelor of Science

Juneau

The BSIS program provides a course of study that prepares students for professional positions in application programming, e-commerce, and network administration.

Admission Requirements:
To be formally admitted to the BSIS program, a student must be in good standing at the University.

Degree Requirements

Candidates must complete the general education requirements (GERs) as well as the specific program requirements listed in this section for a minimum of 120 credit hours. Majors must include 42 credits of upper-division (300 or above) courses, 24 of which must be completed at UAS. Courses used as major requirements cannot be used as GERs.

A minimum grade of C must be earned in all CIOS classes.

Icefield Courses and Academic Credit:
www.juneauicefield.org/FieldCourses.html

Students are generally registered for a minimum of 3 credits through the University of Idaho. Six credits comprise a full load. Additional credits (up to 9 per summer session) are available with cost borne by the participant.

Courses are in Earth Systems Field Science, emphasizing geological, glacial, periglacial, geophysical, arctic ecological, and glacio-atmospheric systems. Directed Studies in Mountain and Arctic Earth Systems Sciences can be arranged with concentration on selected topics.

Additional Natural Sciences Department Breadth courses for ENVS Majors:

BIOL S271 Ecology 4
BIOL S382 Wetland Ecology 4
BIOL S480 Aquatic Pollution 3
BIOL S481 Marine Ecology 4
MATH S202 Calculus III 4
MATH S302 Differential Equations 3
MATH S305 Geometry 3
MATH S311 Modern Algebra 3
MATH S314 Linear Algebra 3
MATH S460 Mathematical Modeling 3
STAT S273 Elementary Statistics 3
STAT S373 Probability and Statistics 3
STAT S401 Regression and Analysis of Variance 4

ELECTIVES 16

Must include a minimum of 12 credits at the upper division level.
MINIMUM CREDIT HOURS  
120

GENERAL EDUCATION REQUIREMENTS (PG. 58)  
34-35

Students should consult with an advisor and select courses that satisfy prerequisites required in this degree program.

Must include:
ENGL S212 Technical Report Writing 3
ART S160 Art Appreciation* 3

*E-commerce emphasis only

### Information Systems Emphasis Areas

Emphasis in e-commerce also earns a minor in business administration

#### E-Commerce Emphasis

**EMPHASIS REQUIREMENTS**  
83

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT S201</td>
<td>Principles of Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BA S151</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BA S301</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>BA S310</td>
<td>Management Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>BA S343</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S108</td>
<td>Graphic Design Fundamentals for Computer Applications</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S118</td>
<td>Information System Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S152</td>
<td>Digital Image Editing Concepts and Applications</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S157</td>
<td>Web Site Graphics Design and HTML</td>
<td>4</td>
</tr>
<tr>
<td>CIOS S170</td>
<td>Programming I</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S240</td>
<td>Database Concepts and Applications</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S241</td>
<td>Introduction to Networking and the OSI Reference Model</td>
<td>4</td>
</tr>
<tr>
<td>CIOS S257</td>
<td>Advanced Web Site Design and Development</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S279</td>
<td>Database Theory and SQL</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S311</td>
<td>Computer Support Services</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S315</td>
<td>Web Server Administration</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S320</td>
<td>Information System Security</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S340</td>
<td>Database Driven Web Sites</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S358</td>
<td>XML and Web Services</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S371</td>
<td>Systems Analysis, Design, and Implementation</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S411</td>
<td>Managing Customer Service</td>
<td>2</td>
</tr>
<tr>
<td>CIOS S430</td>
<td>Electronic Commerce and Ethics</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S432</td>
<td>Project Management in IT</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S485</td>
<td>Senior Presentation/Portfolio Defense</td>
<td>1</td>
</tr>
</tbody>
</table>

Select three from the following (9 credits total):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIOS S376</td>
<td>Programming in Perl</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S377</td>
<td>Visual Basic.Net</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S445</td>
<td>Database Development with Oracle Tools</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S447</td>
<td>Database Administration</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S474</td>
<td>Programming in C#</td>
<td>3</td>
</tr>
</tbody>
</table>

**ELECTIVES**  
5-6

#### Networking Emphasis

**EMPHASIS REQUIREMENTS**  
77

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIOS S110B</td>
<td>Microcomputer Operating System, Part B</td>
<td>2</td>
</tr>
<tr>
<td>CIOS S111</td>
<td>Microcomputer Concepts</td>
<td>2</td>
</tr>
<tr>
<td>CIOS S118</td>
<td>Information System Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S170</td>
<td>Programming I</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S209</td>
<td>Hardware Concepts</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S210</td>
<td>Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S241</td>
<td>Introduction to Networking and the OSI Reference Model</td>
<td>4</td>
</tr>
<tr>
<td>CIOS S244</td>
<td>Internetwork Router Configuration and Design</td>
<td>4</td>
</tr>
<tr>
<td>CIOS S245</td>
<td>Computer Network Concepts and Administration</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S247</td>
<td>Local Area network Configuration and Design</td>
<td>4</td>
</tr>
<tr>
<td>CIOS S248</td>
<td>Wide Area network Configuration and Design</td>
<td>4</td>
</tr>
<tr>
<td>CIOS S310</td>
<td>Linux and Related Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S311</td>
<td>Computer Support Services</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S315</td>
<td>Web Server Administration</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S320</td>
<td>Information System Security</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S341</td>
<td>Building Scalable Networks</td>
<td>4</td>
</tr>
<tr>
<td>CIOS S342</td>
<td>Building Remote Access Networks</td>
<td>4</td>
</tr>
<tr>
<td>CIOS S343</td>
<td>Building Multilayer Switched Networks</td>
<td>4</td>
</tr>
<tr>
<td>CIOS S344</td>
<td>Internetworking and Troubleshooting</td>
<td>4</td>
</tr>
<tr>
<td>CIOS S411</td>
<td>Managing Customer Service</td>
<td>2</td>
</tr>
<tr>
<td>CIOS S443</td>
<td>Network Security</td>
<td>4</td>
</tr>
<tr>
<td>CIOS S444</td>
<td>Network Security II</td>
<td>4</td>
</tr>
<tr>
<td>CIOS S449</td>
<td>Advanced Networking Topics</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S485</td>
<td>Senior Presentation/Portfolio Defense</td>
<td>1</td>
</tr>
</tbody>
</table>

**ELECTIVES**  
8-9

#### Programming Emphasis

**EMPHASIS REQUIREMENTS**  
77

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIOS S108</td>
<td>Graphic Design Fundamentals for Computer Applications</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S118</td>
<td>Information System Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S152</td>
<td>Digital Image Editing Concepts and Applications</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S157</td>
<td>Web Site Graphic Design and HTML</td>
<td>4</td>
</tr>
<tr>
<td>CIOS S170</td>
<td>Programming I</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S240</td>
<td>Database Concepts and Applications</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S241</td>
<td>Introduction to Networking and the OSI Reference Model</td>
<td>4</td>
</tr>
<tr>
<td>CIOS S257</td>
<td>Advanced Website Design and Development</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S274</td>
<td>Data Structures and Algorithms</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S275</td>
<td>Programming in Java</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S279</td>
<td>Database Theory and SQL</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S310</td>
<td>Linux and Related Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S311</td>
<td>Computer Support Services</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S315</td>
<td>Web Server Administration</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S320</td>
<td>Information System Security</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S374</td>
<td>Programming in C++</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S376</td>
<td>Programming in Perl</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S377</td>
<td>Visual Basic.Net</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S411</td>
<td>Managing Customer Service</td>
<td>2</td>
</tr>
<tr>
<td>CIOS S475</td>
<td>Current Issues: Emergent Technologies</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S480</td>
<td>Software Engineering</td>
<td>3</td>
</tr>
<tr>
<td>CIOS S485</td>
<td>Senior Presentation/Portfolio Defense</td>
<td>1</td>
</tr>
</tbody>
</table>
Bachelor's Degrees

Select three from the following (9 credits total):

- CIOS S340 Database Driven Web Sites 3
- CIOS S358 XML and Web Services 3
- CIOS S371 Systems Analysis, Design, and Implementation 3
- CIOS S445 Database Development with Oracle Tools 3
- CIOS S447 Database Administration 3
- CIOS S474 Programming in C# 3

Electives 11-12

Liberal Arts, B.L.A.

Bachelor of Liberal Arts

Juneau

With emphases in: Art, General Studies, Human Communication, and Language Arts and Communications. General Studies is available via distance delivery.

The Bachelor of Liberal Arts degree is designed for students seeking a broad-based education that can lead to graduate school or jobs in which critical thinking and communication skills are valued. Students engage in time-honored methods of inquiry: creative endeavor, critical interpretation, dialogue, historical and logical analysis, and scholarly investigation. BLA graduates who are interested in teaching may also apply to the one-year Master of Arts in Teaching program at UAS.

Students should consult with faculty in their areas of interest to design an individualized course of study.

BLA degrees must include:

1. 120 credits minimum at the 100 level or above
2. 30 credits, including 24 upper-division credits, completed at UAS
3. 42 upper-division (300-400 level) credits
4. No more than 12 credits of independent study and no more than 12 credits of internship

Admission Requirements

Students need to go through formal application process. See UAS admission requirements.

Distance Students: E-mail: distance.ed@uas.alaska.edu or call 1-800-478-9069.

Degree Requirements

Courses in a degree program may be counted only once—courses used as major requirements cannot also be used to fulfill requirements in other parts of the program. History courses may fulfill humanities or social science requirement, but may not be used for both.

BLA-required GERs may fulfill requirements in the GERs or elsewhere in the program.

MINIMUM CREDIT HOURS 120

GENERAL EDUCATION REQUIREMENTS (PG. 58) 35

Must include:

- ART S261 History of World Art I* 3
- PHIL S201 Introduction to Philosophy 3
- ___ S ___ Language courses** 8

Select both

- HIST S105 World History I 3
- HIST S106 World History II 3

Or both

- HIST S131 History of the U.S. I 3
- HIST S132 History of the U.S. II 3

*Art emphasis only

**8 credits in a 1-year sequence of a single world or Alaska Native language. Students who study a world language (other than English) for a semester in a study abroad program where they are being taught in the language of study and in the country where the language is spoken will be considered to have met their B.L.A. language requirement.

Liberal Arts with Minor

BREADTH REQUIREMENTS WITH A MINOR 28

Humanities 9

Minimum of 9 credits in at least 2 disciplines with a maximum of 6 credits in 1 discipline.

Social Science 9

Minimum of 9 credits in at least 2 disciplines with a maximum of 6 credits in 1 discipline.

Mathematics or Natural Sciences 7

Select from MATH S108 or higher; STAT S107 or higher; all natural science courses; ANTH S205, GEOG S205, PHIL S206.

Communications 3

Completion of ENGL S311 with a C or higher.

MINOR REQUIREMENTS 15-18

Electives 9-12

Liberal Arts without Minor

BREADTH REQUIREMENTS WITHOUT A MINOR 43

Humanities 15

Minimum 15 credits in at least 2 disciplines with a maximum of 9 credits in 1 discipline.

Social Science 15

Minimum 15 credits in at least 2 disciplines with a maximum of 9 credits in 1 discipline.

Mathematics or Natural Sciences 7

Select from MATH S108 or higher mathematics course; all natural science courses; or ANTH S205, GEOG S205, PHIL S204, and STAT S273.
Communications 6

Completion of ENGL S311 with a C or higher and 3 additional upper division credits in literature, creative writing, communication, or other English composition.

ELECTIVES 12

Liberal Arts Emphasis Areas

Grades lower than a C will not be accepted for the depth or emphasis area. A senior research thesis or project of up to 6 credits is optional. Law Science (LAWS) courses can only be used in the General Studies emphasis.

Art Emphasis

ART S261 must be taken as the required fine art GER for this program.

EMPHASIS REQUIREMENTS 30

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART S162</td>
<td>3</td>
</tr>
<tr>
<td>ART S205</td>
<td>3</td>
</tr>
<tr>
<td>ART S213</td>
<td>3</td>
</tr>
<tr>
<td>ART S262</td>
<td>3</td>
</tr>
<tr>
<td>ART S363</td>
<td>3</td>
</tr>
<tr>
<td>HUM S499</td>
<td>3</td>
</tr>
<tr>
<td>ART S___</td>
<td>6</td>
</tr>
</tbody>
</table>

Select one from the following (3 credits):

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART S201</td>
<td>3</td>
</tr>
<tr>
<td>ART S211</td>
<td>3</td>
</tr>
</tbody>
</table>

Select one from the following (3 credits):

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART S307</td>
<td>3</td>
</tr>
<tr>
<td>ART S308</td>
<td>3</td>
</tr>
<tr>
<td>ART S310</td>
<td>3</td>
</tr>
</tbody>
</table>

*ART S105 must be taken as a prerequisite to ART S205 and can count as either a humanities breadth or elective in this program.

**ART S207, S208 and S210 are required prerequisites for these courses. They can count as either humanities breadth or electives in this program.

General Studies Emphasis

(Available by distance delivery)

EMPHASIS REQUIREMENTS 30

1. At least 2 disciplines from the following course classifications: humanities, mathematics and logic, natural sciences, or social sciences (including law science) must be represented with at least 12 credits each

2. 18 of the 30 credits required for a general studies emphasis must be upper division.

Human Communication Emphasis

EMPHASIS REQUIREMENTS 30

1. Select 12 credits from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM S250</td>
<td>3</td>
</tr>
<tr>
<td>COMM S380</td>
<td>3</td>
</tr>
<tr>
<td>COMM S491</td>
<td>1-9</td>
</tr>
<tr>
<td>COMM S494</td>
<td>1-9</td>
</tr>
<tr>
<td>HUM S499</td>
<td>3</td>
</tr>
</tbody>
</table>

2. At least 18 credits from one category A, B or C

3. A total of 30 credits is required. 15 credits must be upper division.

Select 18 credits from one category A, B, or C:

A. Cultural/Relational Communication

Category explores the dynamics of culture and interpersonal relationships from a communication perspective with emphasis on the analysis of intercultural and relational challenges.

Select 9 credits from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM S218</td>
<td>1-3</td>
</tr>
<tr>
<td>COMM S237</td>
<td>3</td>
</tr>
<tr>
<td>COMM S330</td>
<td>3</td>
</tr>
<tr>
<td>COMM S418</td>
<td>1-3</td>
</tr>
<tr>
<td>COMM S451</td>
<td>3</td>
</tr>
<tr>
<td>COMM S452</td>
<td>3</td>
</tr>
</tbody>
</table>

Select one from the following (3 credits):

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM S207</td>
<td>3</td>
</tr>
<tr>
<td>COMM S335</td>
<td>3</td>
</tr>
<tr>
<td>COMM S346</td>
<td>3</td>
</tr>
<tr>
<td>COMM S420</td>
<td>3</td>
</tr>
<tr>
<td>COMM S460</td>
<td>3</td>
</tr>
<tr>
<td>COMM S475</td>
<td>3</td>
</tr>
</tbody>
</table>

Select two from the following (6 credits):

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH S202</td>
<td>3</td>
</tr>
<tr>
<td>ANTH S240</td>
<td>3</td>
</tr>
<tr>
<td>ANTH S335</td>
<td>3</td>
</tr>
<tr>
<td>ANTH S342</td>
<td>3</td>
</tr>
<tr>
<td>ANTH S351</td>
<td>3</td>
</tr>
<tr>
<td>ANTH S435</td>
<td>3</td>
</tr>
<tr>
<td>ED S380</td>
<td>3</td>
</tr>
<tr>
<td>HIST S115</td>
<td>3</td>
</tr>
<tr>
<td>PHIL S271</td>
<td>3</td>
</tr>
<tr>
<td>PSY S313</td>
<td>3</td>
</tr>
<tr>
<td>PSY S375</td>
<td>3</td>
</tr>
<tr>
<td>SOC S242</td>
<td>3</td>
</tr>
<tr>
<td>SOC S301</td>
<td>3</td>
</tr>
<tr>
<td>SOC S302</td>
<td>3</td>
</tr>
<tr>
<td>SOC S377</td>
<td>3</td>
</tr>
<tr>
<td>SOC S410</td>
<td>3</td>
</tr>
<tr>
<td>SSCI S300</td>
<td>3</td>
</tr>
</tbody>
</table>

Additional courses as approved by advisor.

B. Performance/Rhetorical Studies

Category explores the analysis of contemporary events through the application of critical theory and performance with emphasis on the components of performer,
Select 9 credits from the following:
- COMM S218 Studies in Human Communication [1-3]
- COMM S241 Public Speaking [3]
- COMM S320 Argumentation and Debate [3]
- COMM S346 From Page to Stage: Oral Interpretation [3]
- COMM S418 Advanced Studies in Human Communication [1-3]
- COMM S460 Rhetorical Criticism [3]

Select one from the following (3 credits):
- COMM S330 Intercultural Communication [3]
- COMM S335 Organizational Communication [3]
- COMM S420 Leadership II [3]
- COMM S451 Gendered Interpersonal Communication [3]
- COMM S452 Family Communication [3]
- COMM S475 Communication in Education and Training [3]

Select two from the following (6 credits):
- ENGL S223 Survey of British Literature I [3]
- ENGL S224 Survey of British Literature II [3]
- ENGL S225 Survey of American Literature I [3]
- ENGL S226 Survey of American Literature II [3]
- ENGL S302 Masterpieces of World Literature [3]
- ENGL S303 Literature and the Environment [3]
- ENGL S305 Children's Literature [3]
- ENGL S306 Social Psychology [3]
- ENGL S307 Current Issues in Psychology [3]
- ENGL S308 Psychology and Society [3]
- ENGL S309 Personality and Individual Differences [3]
- ENGL S310 Language and Cognition [3]
- ENGL S311 Language and Literacy [3]
- ENGL S312 Language and Power [3]
- ENGL S313 Language and Culture [3]
- ENGL S314 Language and Identity [3]
- ENGL S315 Language and Society [3]
- ENGL S316 Language and Technology [3]
- ENGL S317 Language and the Environment [3]
- ENGL S318 Language and Environment [3]
- ENGL S319 Language and Environment [3]
- ENGL S320 Themes in Literature I [3]
- ENGL S321 Themes in Literature II [3]
- ENGL S322 Themes in Literature III [3]
- ENGL S323 Themes in Literature IV [3]
- ENGL S324 Themes in Literature V [3]
- ENGL S325 Themes in Literature VI [3]
- ENGL S326 Themes in Literature VII [3]
- ENGL S327 Themes in Literature VIII [3]
- ENGL S328 Themes in Literature IX [3]
- ENGL S329 Themes in Literature X [3]
- ENGL S330 Themes in Literature XI [3]
- ENGL S331 Themes in Literature XII [3]
- ENGL S332 Themes in Literature XIII [3]
- ENGL S333 Themes in Literature XIV [3]
- ENGL S334 Themes in Literature XV [3]
- ENGL S335 Themes in Literature XVI [3]
- ENGL S336 Themes in Literature XVII [3]
- ENGL S337 Themes in Literature XVIII [3]
- ENGL S338 Themes in Literature XIX [3]
- ENGL S339 Themes in Literature XX [3]
- ENGL S340 Themes in Literature XXI [3]
- ENGL S341 Themes in Literature XXII [3]
- ENGL S342 Themes in Literature XXIII [3]
- ENGL S343 Themes in Literature XXIV [3]
- ENGL S344 Themes in Literature XXV [3]
- ENGL S345 Themes in Literature XXVI [3]
- ENGL S346 Themes in Literature XXVII [3]
- ENGL S347 Themes in Literature XXVIII [3]
- ENGL S348 Themes in Literature XXIX [3]
- ENGL S349 Themes in Literature XXX [3]
- ENGL S350 Themes in Literature XXXI [3]
- ENGL S351 Themes in Literature XXXII [3]
- ENGL S352 Themes in Literature XXXIII [3]
- ENGL S353 Themes in Literature XXXIV [3]
- ENGL S354 Themes in Literature XXXV [3]
- ENGL S355 Themes in Literature XXXVI [3]
- ENGL S356 Themes in Literature XXXVII [3]
- ENGL S357 Themes in Literature XXXVIII [3]
- ENGL S358 Themes in Literature XXXIX [3]
- ENGL S359 Themes in Literature XL [3]

Language Arts and Communications Emphasis

**EMPHASIS REQUIREMENTS**

1. At least 18 credits from one category A, B, or C
2. At least 3 credits from each of the categories below
3. HUM 499 Humanities Capstone course (3 credits)
4. A total of 30 credits is required. 15 credits must be upper division

**A. Composition and Creative Writing**
- ENGL S261 Introduction to Creative Writing [3]
- ENGL S362 Memoir Writing [3]
- ENGL S363 Nature Writing [3]
- ENGL S393/493 Special Topics [3]
- ENGL S397/497 Independent Study [3]
- ENGL S414 Research Writing [3]
- ENGL S461 Advanced Creative Writing: ST [3]
- HUM S499 Humanities Capstone [3]

**B. Human Communication**
- COMM S218 Studies in Human Communication [1-3]
- COMM S220 Leadership I [3]
- COMM S235 Small Group Communication/Teambuilding [3]
- COMM S237 Interpersonal Communications [3]
- COMM S241 Public Speaking [3]
- COMM S250 Introduction to Human Communication [3]
- COMM S320 Argumentation and Debate [3]
- COMM S330 Intercultural Communication [3]
- COMM S335 Organizational Communication [3]
- COMM S340 Media Studies [3]
- COMM S346 From Page to Stage: Oral Interpretation [3]
- COMM S380 Communication Theory [3]
- COMM S418 Advanced Studies in Human Communication [1-3]
- COMM S420 Leadership II [3]
- COMM S451 Gendered Interpersonal Communication [3]
- COMM S452 Family Communication [3]
- COMM S460 Rhetorical Criticism [3]
- COMM S475 Communication in Edu and Trng [3]
- COMM S591/592 Communication Internship [1-9]
- COMM S594/594 Communication Practicum [1-3]

**C. Literature**
- ENGL S215 Intro to Literary Study [3]
- ENGL S218 Themes in Literature [3]
- ENGL S223-224 Survey of British Literature I, II [3]
- ENGL S302 Masterpieces of World Literature [3]
- ENGL S303 Literature and the Environment [3]
- ENGL S305 Children's Literature [3]
ENGL S330 Shakespeare 3
ENGL S340 English Language Studies 3
ENGL S365 Literature of Alaska 3
ENGL S370 Native American Literature 3
ENGL S393/493 Special Topics 3
ENGL S397/497 Independent Study 3
ENGL S418 Advanced Themes in Literature: ST 3
ENGL S419 Major Authors: ST 3
ENGL S420 Genre Studies: ST 3
ENGL S421 Women and Literature: ST 3
ENGL S422 Literary Periods: ST 3
ENGL S423 Ecocriticism 3
HUM S499 Liberal Arts Thesis 1-6

D. Other Elective: Select one course from languages, communication, journalism or theatre (3 credits.)

Marine Biology, B.S.

Bachelor of Science

Juneau

The B.S. degree in Marine Biology provides students with the opportunity to learn biological principles and skills in lecture, laboratory and field courses with a core curriculum in Marine Biology. Student research is emphasized throughout the program. The program has faculty actively involved in a wide range of disciplines, including marine ecology, behavioral ecology, marine mammalogy, marine pollution, crustacean physiology, marine phycology. The location of the University provides students with a “natural laboratory” that includes extensive marine habitat, rainforest, wetlands, and ice fields all within walking distance of the classrooms. A small student-to-professor ratio ensures a more personal approach to learning than is possible at larger universities. Additional information about the marine biology program can be found at www.uas.alaska.edu/biology.

Admission Requirements

Applicants enter as pre-majors and will be considered for full admission to the B.S. in Marine Biology after completion of the following:

1. MATH S107 (may be met by placement examination)
2. ENGL S111
3. BIOL S105 and BIOL S106
4. High school chemistry or CHEM S103 with a C or higher.

When a student becomes a major in Marine Biology, he or she is assigned a faculty advisor. The student and faculty advisor plan the student’s curriculum, and the advisor’s signature is required on registration documents.

Degree Requirements

Candidates must complete the General Education Requirements (GERs) as well as the specific program requirements listed below for a minimum of 120 credit hours.

Courses in a degree program may be counted only once. Courses used to fulfill the major requirements cannot be used to fulfill the GERs. Specific requirements for GERs in Marine Biology are listed below. The degree must include 48 credits of upper-division (300 or above) courses, 24 of which must be completed at UAS.

MINIMUM CREDIT HOURS 120

GENERAL EDUCATION REQUIREMENTS (PG. 58) 36

Must include:
- MATH S200 Calculus I 4
- BIOL S105 Fundamentals of Biology I 4
- BIOL S106 Fundamentals of Biology II 4

MAJOR REQUIREMENTS 46

- BIOL S215 Introduction to Marine Biology 3
- BIOL S271 Ecology 4
- BIOL S310 Animal Physiology 4
- BIOL S362 Genetics 4
- BIOL S482 Evolution 4
- CHEM S105 General Chemistry I 4
- CHEM S106 General Chemistry II 4
- CHEM S341 Organic and Biological Chemistry I 4
- CHEM S342 Organic and Biological Chemistry II 4
- STAT S273 Elementary Statistics 3

Select both
- PHYS S103 College Physics I 4
- PHYS S104 College Physics II 4

or both
- PHYS S211 General Physics I 4
- PHYS S212 General Physics II 4

MARINE BIOLOGY CORE CLASSES 12

Select from the following courses (12 credits total):
- BIOL S305 Invertebrate Zoology 4
- BIOL S373 Conservation Biology 3
- BIOL S384 Marine Mammalogy 4
- BIOL S401 Phycology 4
- BIOL S415 Physiology of Marine Animals 4
- BIOL S427 Introduction to Ichthyology 4
- BIOL S481 Marine Ecology 4

BIOLOGY ELECTIVES 5

Select from the following (5 credits total):

- BIOL S239 Intro to Plant Biology 4
- BIOL S300 Vertebrate Zoology 4
- BIOL S375 Current Topics in Biology** 2
- BIOL S382 Wetlands Ecology 4
- BIOL S396 Field Studies* 1-6
- BIOL S398 Research* 1-3
- BIOL S498 Research* 1-6
- BIOL S426 Ornithology 4
- BIOL S441 Animal Behavior 4
- BIOL S445 Vascular Plants of Southeast Alaska 3
- BIOL S480 Aquatic Pollution 3
- BIOL S492 Biology Seminar** 1
- BIOL S495 Behavioral Ecology 3

* up to 6 credits total from BIOL 396/398/498 may be applied
** only 4 credits from BIOL S375 and 2 credits from BIOL S492
Mathematics, B.S.

Bachelor of Science
Juneau

The Bachelor of Science in Mathematics provides a solid foundation in mathematics. In addition to taking the core and interdisciplinary courses, students will also take part in a seminar dedicated to undergraduate research during their last two years. After obtaining the degree, students will have opportunities in secondary education, graduate studies and direct entry into the job market. Each student will be advised by faculty to achieve a specific program tailored for the student’s goals. Additional information may be found at www.uas.alaska.edu/math.

Admission Requirements
Applicants will be considered for full admission to the BS program with a GPA of 2.0 or better and after completion of the following with a grade of C or better:
1. ENGL S111
2. MATH S107 or higher

Degree Requirements
Candidates must complete the General Education Requirements (GER) as well as the specific program requirements listed below for a minimum of 120 credit hours. Courses in a degree program may be counted only once. Courses used to fulfill the major requirements cannot be used to fulfill the GER. The degree must include 42 upper division (300 or above) credits, 24 of which must be completed at UAS.

MINIMUM CREDIT HOURS 120

GENERAL EDUCATION REQUIREMENTS (PG. 58) 35

SCIENCE REQUIREMENTS 7

Select from the following:
BIOL S105 Fundamentals of Biology I 4
BIOL S106 Fundamentals of Biology II 4
BIOL S111 Human Anatomy and Physiology I 4
BIOL S112 Human Anatomy and Physiology II 4
CHEM S105 General Chemistry I 4
CHEM S106 General Chemistry II 4
ENVS S101 Introduction to Environmental Science 4
GEOL S104 Physical Geology 4
PHIL S206 Symbolic Logic 3

Other science courses may be substituted with the approval of the advisor.

PHYSICS REQUIREMENTS 8

select both
PHYS S103 College Physics I 4
PHYS S104 College Physics II 4

or both
PHYS S211 General Physics I 4
PHYS S212 General Physics II 4

MAJOR REQUIREMENTS 43

MATH S200 Calculus I 4
MATH S201 Calculus II 4
MATH S202 Calculus III 4
MATH S215 Introduction to Proofs 3
MATH S302 Differential Equations 3
MATH S311 Modern Algebra 3
MATH S314 Linear Algebra 3
MATH S324 Advanced Calculus 3
MATH S392 Junior Seminar 2
MATH S492 Senior Seminar 2
STAT S273 Elementary Statistics 3

Select from the following (9 credits total):
FISH F421 Fish Population Dynamics (UAF) 4
MATH S305 Geometry 3
MATH S410 Complex Variables 3
MATH S411 History of Mathematics and Science 3
MATH S460 Mathematical Modeling 3
STAT S373 Probability and Statistics 3
STAT S401 Regression and Analysis of Variance 4

ELECTIVES/MINOR: 27

Must include upper division courses as needed.

Social Science, B.A.

Bachelor of Arts
Juneau

With concentration areas in:

- Anthropology
- Economics
- Government/Political Science
- History
- Psychology
- Sociology

The B.A. degree in Social Science with an emphasis in a social science discipline enables students to engage in advanced course work in at least three social science disciplines as well as experience a rich interdisciplinary focus pursuing their degree.

Admission Requirements
After admission to UAS and declaring a social science major, applicants are admitted to the B.A. in Social Science program and assigned a faculty advisor.

Degree Requirements
Candidates must complete General Education Requirements (GERs) as well as specific program requirements
listed below for a minimum of 120 credit hours. Specific requirements for GERs in Social Science are listed below. Students must select one primary and two secondary concentration areas. The degree must include 42 credits of upper-division (300 or above) courses, 24 of which must be completed at UAS.

The Student Assessment Portfolio Plan (SAP): The (SAP) in Social Science is a portfolio assessment requirement for degree completion. The following related course is taken in the freshman or sophomore year with presentation of the completed portfolio in the fall semester of the student’s senior year:

- SSCI S210, Portfolio Review

Specific requirements of the portfolio are available from the Assessment Coordinator for the Social Sciences SAP.

<table>
<thead>
<tr>
<th>MINIMUM CREDIT HOURS</th>
<th>120</th>
</tr>
</thead>
<tbody>
<tr>
<td>GENERAL EDUCATION REQUIREMENTS (PG. 58)</td>
<td>35</td>
</tr>
</tbody>
</table>

**Computational Skills**

*Select one from the following (4 credits):*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT S107 Survey of Statistics</td>
<td>4</td>
</tr>
<tr>
<td>MATH S107 College Algebra</td>
<td>4</td>
</tr>
</tbody>
</table>

**Social Science Skills**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSCI S101 Self, Culture and Society</td>
<td>3</td>
</tr>
<tr>
<td>SSCI S102 Reading/Writing in Social Sciences</td>
<td>2</td>
</tr>
<tr>
<td>SSCI S210 First Portfolio Review Class</td>
<td>1</td>
</tr>
</tbody>
</table>

**WORLD LANGUAGE RECOMMENDATION**

- **S** Language courses* 8

*8 credits in a 1-year sequence of a single world or Alaska Native language

**ELECTIVES**

- **S** Advisor-approved electives 23-25

**PRINCIPAL CONCENTRATION REQUIREMENTS**

**SECONDARY CONCENTRATION REQUIREMENTS**

**Social Science Primary Concentrations**

Choose one. If a course is taken as a GER, substitution of an equal or higher course level and number of credits in same discipline must be taken to fulfill the primary concentration requirement.

**Anthropology**

**PRINCIPAL CONCENTRATION REQUIREMENTS**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH S202 Cultural Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>ANTH S205 Biological Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>S Electives*</td>
<td>18</td>
</tr>
</tbody>
</table>

*At least 12 credits must be upper division

**Economics**

**PRINCIPAL CONCENTRATION REQUIREMENTS**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON S201 Principles Econ I: Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON S202 Principles Econ II: Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>SSCI S300 Research Methods in Social Science</td>
<td>3</td>
</tr>
<tr>
<td>ECON S Electives*</td>
<td>12-13</td>
</tr>
</tbody>
</table>

*At least 9 credits must be upper division.

**Select one from the following (3 credits):**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON S321 Intermediate Microeconomic Theory</td>
<td>3</td>
</tr>
<tr>
<td>ECON S324 Intermediate Macroeconomic Theory</td>
<td>3</td>
</tr>
</tbody>
</table>

**Government/Political Science**

**PRINCIPAL CONCENTRATION REQUIREMENTS**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GOVT S230 Introduction to Political Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>GOVT S359 European Politics</td>
<td>3</td>
</tr>
<tr>
<td>GOVT S491 Legislative Internship</td>
<td>9</td>
</tr>
<tr>
<td>GOVT S492A Legislative Internship Seminar</td>
<td>3</td>
</tr>
<tr>
<td>SSCI S300 Research Methods in Social Science</td>
<td>3</td>
</tr>
</tbody>
</table>

**Select one from the following (3 credits):**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GOVT S101 Introduction to American Govt</td>
<td>3</td>
</tr>
<tr>
<td>GOVT S102 Introduction to Political Science</td>
<td>3</td>
</tr>
</tbody>
</table>

**Select one from the following (3 credits):**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GOVT S313 Alaska Politics and Government</td>
<td>3</td>
</tr>
<tr>
<td>GOVT S393 ST: Western European Politics</td>
<td>3</td>
</tr>
</tbody>
</table>

**History**

**PRINCIPAL CONCENTRATION REQUIREMENTS**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST S300 Historiography and Historical Methods</td>
<td>3</td>
</tr>
<tr>
<td>HIST S492 Seminar in History: Selected Topics</td>
<td>3</td>
</tr>
<tr>
<td>S Any two 100/200 level history courses except HIST 133</td>
<td>6</td>
</tr>
<tr>
<td>S Any two 300/400 level history courses*</td>
<td>6</td>
</tr>
</tbody>
</table>

*Courses selected must not be taken as GERs

**Select both**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST S131 History of the U.S. I</td>
<td>3</td>
</tr>
<tr>
<td>HIST S132 History of the U.S. II</td>
<td>3</td>
</tr>
</tbody>
</table>

**or both**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST S105 World History I</td>
<td>3</td>
</tr>
<tr>
<td>HIST S106 World History II</td>
<td>3</td>
</tr>
</tbody>
</table>

**or both**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST S227 Early Modern Europe 1400-1815</td>
<td>3</td>
</tr>
<tr>
<td>HIST S228 Modern Europe 1815-2000</td>
<td>3</td>
</tr>
</tbody>
</table>

*Courses selected must not be taken as GERs

**Psychology**

**PRINCIPAL CONCENTRATION REQUIREMENTS**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY S101 Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>S Any one 200 level psychology course</td>
<td>3</td>
</tr>
<tr>
<td>PSY S340 Abnormal Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SSCI S300 Research Methods in Social Science</td>
<td>3</td>
</tr>
<tr>
<td>PSY S Electives*</td>
<td>9</td>
</tr>
</tbody>
</table>

*6 credits must be upper division.
Select one of the following (3 credits):
- PSY S302 Social Psychology 3
- PSY S430 Clinical and Counseling Psychology 3

Sociology

PRIMARY CONCENTRATION REQUIREMENTS 24
- SOC S101 Introduction to Sociology 3
- SSCI S300 Research Methods in Social Science 3
- SOC S___ Electives* 18

*At least 15 credits must be upper division.

Social Science

Secondary Concentrations

Choose two of the following disciplines different from your primary concentration area and complete 15-16 credit course sequencing for both. If course taken as a GER, substitution of an equal or higher course level and number of credits in the same discipline must be taken to fulfill the secondary concentration requirement.

Anthropology

SECONDARY CONCENTRATION REQUIREMENTS 15
- ANTH S202 Cultural Anthropology 3
- ANTH S___ Electives* 12

*At least 9 credits must be upper division.

Economics

SECONDARY CONCENTRATION REQUIREMENTS 15-16
- ECON S201 Principles Econ I: Macroeconomics 3
- ECON S202 Principles Econ II: Microeconomics 3
- ECON S___ Electives* 9-10

*At least 6 credits must be upper division.

Government/Political Science

SECONDARY CONCENTRATION REQUIREMENTS 15
- GOVT S230 Introduction to Political Philosophy 3
- GOVT S313 Alaska Politics and Government 3
- GOVT S359 European Politics 3
- LAWS S434 Constitutional Law 3

Select one from the following (3 credits):
- GOVT S101 Introduction to American Government 3
- GOVT S102 Introduction to Political Science 3

History

SECONDARY CONCENTRATION REQUIREMENTS 15

select both*
- HIST S131 History of the U.S. I 3
- HIST S132 History of the U.S. II 3

or both*
- HIST S105 World History I 3
- HIST S106 World History II 3

or both
- HIST S227 Early Modern Europe 1400-1815 3
- HIST S228 Modern Europe 1815-2000 3
- HIST S___ Electives** 9

*Courses selected must not be taken as GERs.
**Minimum of 6 credits must be upper-division. HIST S133 will not be counted toward this degree.

Psychology

SECONDARY CONCENTRATION REQUIREMENTS 15
- PSY S101 Introduction to Psychology 3
- PSY S___ Electives* 12

*6 credits must be upper division.

Sociology

SECONDARY CONCENTRATION REQUIREMENTS 15
- SOC S101 Introduction to Sociology 3
- SOC S___ Electives 12

Social Work through UAF, B.S.W.

Bachelor of Arts in Social Work
University of Alaska Fairbanks

Graduates in social work qualify for beginning practice positions in child welfare, mental health, services for the aged, family agencies, youth programs, health services, Native corporations and other social agencies. Social work applies knowledge in the behavioral sciences to deal with the emotional and social problems of individuals, families and communities.

The curriculum includes a liberal arts base, foundation requirements in the behavioral sciences, and sequences in social policy and services, practical methods and field instruction. A major emphasis is the preparation of the student for beginning social work practice with rural and Alaska Native populations. Qualified students will complete a 400 hour practicum in a community social service agency in their senior year.

Delivery Courses are accessible throughout the state using a variety of distance delivery techniques including audio conferences and face-to-face seminars. This means students in rural regions of the state may be able to acquire the BA Social Work degree without relocating to a major campus of the university.

Complete general and core requirements for the B.A. degree in Communication Skills, Humanities and the Social Sciences; Perspectives on the Human Condition; Mathematics or Computer Science and Natural Science.
**MINIMUM CREDIT HOURS** 120

**MAJOR REQUIREMENTS*** 42

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SWK F103</td>
<td>Introduction to Social Work</td>
<td>3</td>
</tr>
<tr>
<td>SWK F220</td>
<td>Values, Ethics and Social Work Practice</td>
<td>3</td>
</tr>
<tr>
<td>SOC/PSY F250</td>
<td>Statistics for the Behavioral Sciences</td>
<td>3</td>
</tr>
<tr>
<td>SWK F305</td>
<td>Social Welfare History</td>
<td>3</td>
</tr>
<tr>
<td>SWK F306</td>
<td>Social Welfare: Policies and Issues</td>
<td>3</td>
</tr>
<tr>
<td>SWK F320</td>
<td>Rural Social Work</td>
<td>3</td>
</tr>
<tr>
<td>SWK F341</td>
<td>Human Behavior in the Social Environment I</td>
<td>3</td>
</tr>
<tr>
<td>SWK F342</td>
<td>Human Behavior in the Social Environment II</td>
<td>3</td>
</tr>
<tr>
<td>SWK F375</td>
<td>Research Methods in Social Work</td>
<td>3</td>
</tr>
<tr>
<td>SWK F460</td>
<td>Social Work Practice I</td>
<td>3</td>
</tr>
<tr>
<td>SWK F461</td>
<td>Practicum in Social Work I (6 credits total)</td>
<td>3</td>
</tr>
<tr>
<td>SWK F463</td>
<td>Social Work Practice II</td>
<td>3</td>
</tr>
<tr>
<td>SWK F464</td>
<td>Practicum in Social Work II (6 credits total)</td>
<td>3</td>
</tr>
</tbody>
</table>

*Grade C or better

**REQUIRED COURSES:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY S101 or F101</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SOC S101 or F100X</td>
<td>Self, Culture and Society</td>
<td>3</td>
</tr>
<tr>
<td>ANTH S200 or F242</td>
<td>Alaska Native Cultures</td>
<td>3</td>
</tr>
</tbody>
</table>

For remaining course requirements please contact the advisor.

**Contact:** Heidi Brocious  
Assistant Professor of Social Work  
University of Alaska Fairbanks  
(907) 796-6213
UNDERGRADUATE MINOR OPTIONS

The same discipline may not be used to satisfy the major and the minor (i.e. English major and English minor does not make a degree.) If a course is a requirement of both the major and the minor, a student may use the course to meet both requirements but will not receive double credit.

Alaska Native Studies Minor

The Alaska Native studies program offers the student the opportunity to explore an interdisciplinary curriculum in Alaska Native cultures, history, and perspectives. The program provides critical understanding and insights to students who anticipate professional involvement in Alaska Native rural and urban communities.

MINIMUM CREDIT HOURS 18

Students may only count a maximum of six credits in one topic area. Courses taken as foundations may not be counted as electives.

Select two from the following (6 credits total):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH S200</td>
<td>Alaska Native Cultures</td>
<td>3</td>
</tr>
<tr>
<td>ANTH S225</td>
<td>Artistic Expressions and Oral Narratives of Alaska Natives</td>
<td>3</td>
</tr>
<tr>
<td>ANTH S475</td>
<td>Alaska Native Social Change</td>
<td>3</td>
</tr>
<tr>
<td>ART S263</td>
<td>Northwest Coast Art History and Culture</td>
<td>3</td>
</tr>
</tbody>
</table>

Select from the following (12 credits total):

Language Skills

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AKL S101</td>
<td>Haida I</td>
<td>1</td>
</tr>
<tr>
<td>AKL S102</td>
<td>Haida II</td>
<td>1</td>
</tr>
<tr>
<td>AKL S103</td>
<td>Tlingit I</td>
<td>1</td>
</tr>
<tr>
<td>AKL S104</td>
<td>Tlingit II</td>
<td>1</td>
</tr>
<tr>
<td>AKL S105</td>
<td>Elementary Tlingit I</td>
<td>4</td>
</tr>
<tr>
<td>AKL S106</td>
<td>Elementary Tlingit II</td>
<td>4</td>
</tr>
</tbody>
</table>

Humanities Skills

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART S180</td>
<td>280/380/480 Northwest Coast Art: Selected Topics</td>
<td>1-3</td>
</tr>
<tr>
<td>ART S181</td>
<td>281/381 Beginning/Intermediate/Advanced Northwest Coast Design</td>
<td>1-3</td>
</tr>
<tr>
<td>ART S183</td>
<td>Northwest Coast Harvesting and Preparation of Basketry Materials</td>
<td>.5</td>
</tr>
<tr>
<td>ART S189</td>
<td>Northwest Coast Tool Making</td>
<td>2</td>
</tr>
<tr>
<td>ART S263</td>
<td>Northwest Coast Art History and Culture</td>
<td>1-3</td>
</tr>
<tr>
<td>ART S282</td>
<td>382/482 Beginning/Intermediate Northwest Coast Basketry</td>
<td>1-3</td>
</tr>
<tr>
<td>ART S284</td>
<td>Beginning Northwest Coast Basketry Design</td>
<td>1</td>
</tr>
<tr>
<td>ART S285</td>
<td>385/485 Beginning/Intermediate/Advanced Northwest Coast Carving</td>
<td>1-3</td>
</tr>
<tr>
<td>ART S286</td>
<td>386/486 Beginning/Intermediate/Advanced Northwest Coast Woolen Weaving</td>
<td>1-3</td>
</tr>
<tr>
<td>ENGL S365</td>
<td>Literature of Alaska: Native and Non-Native Perspectives</td>
<td>3</td>
</tr>
<tr>
<td>GEOG S302</td>
<td>Geography of Alaska: People, Places, Potential</td>
<td>3</td>
</tr>
</tbody>
</table>

Social Science Skills

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH S200</td>
<td>Alaska Native cultures</td>
<td>3</td>
</tr>
<tr>
<td>ANTH S225</td>
<td>Artistic Expressions and oral Narratives of Alaska Natives</td>
<td>3</td>
</tr>
<tr>
<td>ANTH S335</td>
<td>Native North Americans</td>
<td>3</td>
</tr>
<tr>
<td>ANTH S342</td>
<td>Arctic Ethnology</td>
<td>3</td>
</tr>
<tr>
<td>ANTH S354</td>
<td>Culture and Ecology</td>
<td>3</td>
</tr>
<tr>
<td>ANTH S435</td>
<td>Northwest Coast Cultures</td>
<td>3</td>
</tr>
<tr>
<td>ANTH S475</td>
<td>Alaska Native Social Change</td>
<td>3</td>
</tr>
<tr>
<td>SOC S346</td>
<td>Alaskan Social Problems*</td>
<td>3</td>
</tr>
</tbody>
</table>

*Special topics courses that emphasize Alaska Native Perspectives may be approved for program.

Art Minor

The minor in art develops skills and appreciation in the visual arts as well as enhancing abilities in many of the following areas: reading, writing, speaking, computer literacy, professional behavior and especially critical thinking.

MINIMUM CREDIT HOURS 18

Select one from the following (3 credits):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART S261</td>
<td>History of World Art I</td>
<td>3</td>
</tr>
<tr>
<td>ART S262</td>
<td>History of World Art II</td>
<td>3</td>
</tr>
</tbody>
</table>

Select 6 credits from 1 of the following areas:

Drawing

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART S205</td>
<td>Intermediate Drawing</td>
<td>3</td>
</tr>
<tr>
<td>ART S304</td>
<td>Drawing and Modeling: Selected Topics</td>
<td>3</td>
</tr>
<tr>
<td>ART S305</td>
<td>Advanced Drawing</td>
<td>3</td>
</tr>
<tr>
<td>ART S319</td>
<td>Life Drawing</td>
<td>3</td>
</tr>
<tr>
<td>ART S404</td>
<td>Figure Studies</td>
<td>3</td>
</tr>
<tr>
<td>ART S405</td>
<td>Senior Drawing</td>
<td>3</td>
</tr>
</tbody>
</table>

Painting

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART S213</td>
<td>Beginning Painting (Oil or Acrylic)</td>
<td>3</td>
</tr>
<tr>
<td>ART S223</td>
<td>Watercolor Painting</td>
<td>3</td>
</tr>
<tr>
<td>ART S313</td>
<td>Intermediate Painting</td>
<td>3</td>
</tr>
<tr>
<td>ART S323</td>
<td>Intermediate Watercolor</td>
<td>3</td>
</tr>
<tr>
<td>ART S413</td>
<td>Advanced Painting</td>
<td>3</td>
</tr>
<tr>
<td>ART S423</td>
<td>Advanced Watercolor</td>
<td>3</td>
</tr>
</tbody>
</table>
### Undergraduate Minor Options

#### Ceramics
- ART S201 Beginning Ceramics 3
- ART S226 Primitive Fire Pottery 3
- ART S301 Intermediate Ceramics 3
- ART S401 Advanced Ceramics 3
- ART S450 Raku Pottery 3

#### Sculpture
- ART S211 Introductory Photography 3
- ART S311 Intermediate Sculpture 3
- ART S411 Advanced Sculpture 3

#### Printmaking
- ART S207 Beginning Printmaking: Serigraphy (Silkscreen) 3
- ART S208 Beginning Printmaking: Relief 3
- ART S210 Beginning Printmaking: Intaglio (Etching) 3
- ART S307 Intermediate Printmaking: Serigraphy (Silkscreen) 3
- ART S308 Intermediate Printmaking: Relief 3
- ART S310 Intermediate Printmaking: Intaglio (Etching) 3
- ART S407 Advanced Printmaking: Serigraphy (Silkscreen) 3
- ART S408 Advanced Printmaking: Relief 3
- ART S410 Advanced Printmaking: Intaglio (Etching) 3

Select one from the following (3 credits):
- ART S261 History of World Art I* 3
- ART S262 History of World Art II* 3
- ART S263 Northwest Coast Native Art History and Culture 3
- ART S363 History of Modern Art 3

*Cannot use the same course to fulfill both requirements

#### Biology Minor

This minor is designed to provide students with a broad introduction to the discipline of Biology as well as the opportunity for advanced study in three focus areas.

**MINIMUM CREDIT HOURS** 18

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL S105</td>
<td>Fundamentals of Biology I</td>
<td>4</td>
</tr>
<tr>
<td>BIOL S106</td>
<td>Fundamentals of Biology II</td>
<td>4</td>
</tr>
</tbody>
</table>

Select three from the following (10-12 credits):*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL S215</td>
<td>Introduction to Marine Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL S239</td>
<td>Introduction to Plant Biology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL S271</td>
<td>Ecology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL S300</td>
<td>Vertebrate Zoology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL S305</td>
<td>Invertebrate Zoology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL S310</td>
<td>Physiology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL S362</td>
<td>Genetics</td>
<td>4</td>
</tr>
<tr>
<td>BIOL S373</td>
<td>Conservation Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL S382</td>
<td>Wetlands Ecology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL S384</td>
<td>Marine Mammalogy</td>
<td>4</td>
</tr>
<tr>
<td>BIOL S401</td>
<td>Phycology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL S426</td>
<td>Ornithology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL S427</td>
<td>Introduction to Ichthyology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL S441</td>
<td>Animal Behavior</td>
<td>4</td>
</tr>
<tr>
<td>BIOL S445</td>
<td>Vascular Plants of Southeast Alaska</td>
<td>3</td>
</tr>
<tr>
<td>BIOL S480</td>
<td>Aquatic Pollution</td>
<td>3</td>
</tr>
<tr>
<td>BIOL S481</td>
<td>Marine Ecology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL S482</td>
<td>Evolution</td>
<td>4</td>
</tr>
<tr>
<td>BIOL S495</td>
<td>Behavioral Ecology</td>
<td>3</td>
</tr>
</tbody>
</table>

*Must include at least one 4 credit course

#### Business Minor

The required courses in the business minor are designed to provide non-business majors with a broad introduction to business disciplines, terminology, and career opportunities.

**MINIMUM CREDIT HOURS** 15

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT S201</td>
<td>Principles of Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BA S301</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>BA S343</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
</tbody>
</table>

Select two from the following (6 credits total):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT S202</td>
<td>Principles of Managerial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>___ S___ Advisor-approved upper division accounting course</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>___ S___ Advisor-approved upper division business administration course</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

#### Computer Information and Office Systems Minor

The minor in computer information and office systems is designed to provide students with proficiency in using computers complementing their academic areas of study and increasing their employability. Students complete 15 credits from any one of the following CIOS occupational endorsements:

**MINIMUM CREDIT HOURS** 15

Administrative Office Support
Introductory Network Administration
Computer Applications
Medical Office Specialist
Networking Essentials
Programming Foundations
Web Authoring
Web Foundations

See individual listings under Occupational Endorsements.

#### Construction Technology Minor

The minor in Construction Technology is designed to provide students with a broad understanding of the details and components of residential construction. Students will gain hands-on experience in woodworking, carpentry, design, drafting and electrical wiring.

**MINIMUM CREDIT HOURS** 18

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CT S120</td>
<td>Basic Construction Techniques</td>
<td>3</td>
</tr>
<tr>
<td>CT S201</td>
<td>Cold Climate Coastal Construction</td>
<td>3</td>
</tr>
</tbody>
</table>
Creative Writing Minor

The minor in creative writing is designed to provide students with the skills necessary to write poetry, fiction, and creative non-fiction. Students also analyze contemporary literature for technique and form. This minor will help prepare students for entrance into an M.F.A. program.

**MINIMUM CREDIT HOURS** 18

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL S261</td>
<td>Introduction to Creative Writing</td>
<td>3</td>
</tr>
<tr>
<td>ENGL S461</td>
<td>Advanced Creative Writing: Selected Topics</td>
<td>6</td>
</tr>
</tbody>
</table>

Select three from the following (9 credits):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL S363</td>
<td>Nature Writing</td>
<td>3</td>
</tr>
<tr>
<td>ENGL S461</td>
<td>Advanced Creative Writing: Selected Topics</td>
<td>3</td>
</tr>
<tr>
<td>ENGL S491</td>
<td>Internship in Creative Writing</td>
<td>3</td>
</tr>
<tr>
<td>ENGL S499</td>
<td>Thesis in Creative Writing</td>
<td>3</td>
</tr>
</tbody>
</table>

French Minor

This minor is designed to provide students with a full grammatical understanding of the language, proficiency in reading and writing, and a command of vocabulary and idiomatic expressions. This program will stress active speaking and comprehension.

**MINIMUM CREDIT HOURS** 18

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FREN S101</td>
<td>Beginning French I</td>
<td>4</td>
</tr>
<tr>
<td>FREN S102</td>
<td>Beginning French II</td>
<td>4</td>
</tr>
<tr>
<td>FREN S201</td>
<td>Intermediate French I</td>
<td>4</td>
</tr>
<tr>
<td>FREN S202</td>
<td>Intermediate French II</td>
<td>4</td>
</tr>
<tr>
<td>FREN S317</td>
<td>French Conversation**</td>
<td>3</td>
</tr>
<tr>
<td>FREN S318</td>
<td>Themes in Literature**</td>
<td>3</td>
</tr>
<tr>
<td>FREN S331</td>
<td>Language and Culture of the French Speaking World</td>
<td>3</td>
</tr>
<tr>
<td>HIST S262</td>
<td>History of France</td>
<td>3</td>
</tr>
</tbody>
</table>

*6 credits must be upper division

**May be repeated when content varies**

Environmental Science Minor

This minor is designed to introduce students to disciplines in the physical sciences and provides the opportunity for advanced study in three focus areas.

**MINIMUM CREDIT HOURS** 18

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVS S101</td>
<td>Introduction to Environmental Science</td>
<td>4</td>
</tr>
</tbody>
</table>

Select one from the following (4 credits):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM S105</td>
<td>General Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>GEOL S104</td>
<td>Physical Geology</td>
<td>4</td>
</tr>
<tr>
<td>PHYS S103</td>
<td>College Physics</td>
<td>4</td>
</tr>
<tr>
<td>PHYS S211</td>
<td>General Physics</td>
<td>4</td>
</tr>
</tbody>
</table>

Human Communication Minor

The minor in human communication is designed to provide students with a broad introduction to the discipline of human communication as well as enhance their reading, speaking, research, writing, computer literacy, professional behavior and critical thinking and quantitative skills.
### Undergraduate Minor Options

**MINIMUM CREDIT HOURS**  
18

**Undergraduate Minor Options**

**Select two from the following (6 credits):**
- COMM S111 Fundamentals of Oral Communication **3**
- COMM S235 Small Group Communication and Teambuilding **3**
- COMM S237 Interpersonal Communication **3**
- COMM S241 Public Speaking **3**
- COMM S250 Introduction to Human Communication **3**

**Select three from the following (9 credits):**
- COMM S220 Leadership I **3**
- COMM S320 Argumentation and Debate **3**
- COMM S330 Intercultural Communication **3**
- COMM S335 Organizational Communication **3**
- COMM S346 From Page to Stage: Oral Interpretation **3**
- COMM S380 Communication Theory **3**
- COMM S420 Leadership II **3**
- COMM S475 Communication in Education and Training **3**
- COMM S451 Gendered Interpersonal Communication **3**
- COMM S452 Family Communication **3**
- COMM S460 Rhetorical Communication **3**

**Select one from the following (3 credits):**
- ENGL/COMM S491 Internship **3**
- ENGL/COMM S494 Practicum **3**
- HUM S499 Humanities Capstone **3**

---

**Legal Studies Minor**

The minor in legal studies is designed to introduce students to the major areas of U.S. law. A basic knowledge of the legal system can be useful in any career as well as enhance ones awareness of the rights and responsibilities of citizens in our society.

**MINIMUM CREDIT HOURS**  
18

**LAWS S101** Introduction to Law **3**
- **LAWS S235** Criminal Litigation **3**
- **LAWS S310** Personal Injuries and Property Damage **3**
- **LAWS S332** Contracts **3**

**Select one from the following (3 credits):**
- **LAWS S360** Business Organizations **3**
- **LAWS S380** Family Law **3**

**Select one from the following (3 credits):**
- **LAWS S410** Administrative Law and Procedures **3**
- **LAWS S434** Constitutional Law **3**

---

**Mathematics Minor**

This minor is designed to provide students with a solid background in calculus as well as introduce them to upper division mathematics. This will enhance the students’ competence and confidence in problem solving, critical thinking and quantitative skills.

**MINIMUM CREDIT HOURS**  
18

**MATH S200** Calculus I **4**
- **MATH S201** Calculus II **4**
- **MATH S202** Calculus III* **4**
  - 5 Advisor-approved upper division MATH or STAT courses **6**
  * Or an upper division mathematics or statistics course

---

**Northwest Coast Art Minor**

**MINIMUM CREDIT HOURS**  
22

**All of the following (5 credits total):**
- **ANTH S225** Artistic Expressions and Oral Narratives of Alaska Natives **3**
- **ART S263** Northwest Coast Native Art History and Culture **1-3**
- **ART S493/S497** Portfolio Review of the best work from elective classes and an independently created piece **1-3**

**Select from the following (2 credits total):**
- **ART S181** Beginning Northwest Coast Design **1-3**
- **ART S281** Intermediate Northwest Coast Design **1-3**
- **ART S381** Advanced Northwest Coast Design **1-3**

**Select 15 credits from one of the following areas:**

**Weaving**
- **ART S116** Fiber Arts-Spinning **1-3**
- **ART S138** Natural Dye **1-3**
- **ART S286** Beginning NW Coast Woolen Weaving **1-3**
- **ART S386** Intermediate NW Coast Woolen Weaving **1-3**
- **ART S486** Advanced NW Coast Woolen Weaving **1-3**

**Basketry**
- **ART S183** Northwest Coast Harvesting and Preparation of Basketry Materials **1-3**
- **ART S284** Northwest Coast Basket Design **1-3**
- **ART S382** Intermediate Northwest Coast Basketry **1-3**
- **ART S482** Advanced Northwest Coast Basketry **1-3**

**Carving**
- **ART S189** Northwest Coast Toolmaking **2**
- **ART S285** Beginning Northwest Coast Carving **1-3**
- **ART S385** Intermediate Northwest Coast Carving **1-3**
- **ART S485** Advanced Northwest Coast Carving **1-3**
- **ART S189** Northwest Coast Toolmaking **2**

*Other approved elective topics in Carving and Northwest Coast Arts.*

---

**Philosophy Minor**

The minor in philosophy allows students to focus their philosophical study in order to develop their skills and achieve a deeper understanding of themselves and their world. Students completing the minor will gain a general knowledge of the history of philosophy and the major topics with which philosophers have been concerned. In addition, they will develop their skills in critical thinking, writing, and speaking.
Undergraduate Minor Options

MINIMUM CREDIT HOURS 18
GOVT S230 Introduction to Political Philosophy 3
PHIL S101 Introduction to Logic and Reasoning 3
PHIL S201 Introduction to Philosophy 3
PHIL S206 Symbolic Logic 3
PHIL S273 Perspectives on the Natural World 3
PHIL S301 Ethics 3
PHIL S293/S393 Selected Topics in Philosophy 3

Undergraduate Minor Options

Professional Communication Minor

This minor is designed to provide students with a broad overview of the different channels of communication with which they will be expected to have some familiarity and skill for most professional work environments. Furthermore, students’ reading, research, writing, speaking, computer literacy, professional behavior, and critical thinking skills will be enhanced.

MINIMUM CREDIT HOURS 18
ENGL S311 Advanced Composition 3
Select one from the following (3 credits):
COMM S335 Organizational Communication 3
COMM S475 Communication in Education and Training 3
Select one from the following (3 credits):
ENGL/COMM S491 Internship 3
ENGL/COMM S494 Practicum 3
HUM S499 Humanities Capstone 3
Select three from the following (9 credits):
COMM S220 Leadership I 3
COMM S235 Small Grp Communication and Teambuilding 3
COMM S237 Interpersonal Communication 3
COMM S241 Public Speaking 3
COMM S250 Introduction to Human Communication 3
COMM S320 Argumentation and Debate 3
COMM S330 Intercultural Communication 3
COMM S335 Organizational Communication 3
COMM S380 Communication Theory 3
COMM S475 Communication in Education and Training 3
COMM S451 Gendered Interpersonal Communication 3
COMM S420 Leadership II 3
ENGL S212 Technical Writing 3
ENGL S414 Research Writing 3
JOUR S100 Introduction to Journalism 3
JOUR S101 Introduction to Mass Communication 3
JOUR S102 Introduction to News Editing and Layout 3
JOUR S221 Introduction to Photography 3
JOUR S224 Intermediate Photography 3
JOUR S294/394/494 Newspaper Practicum 3
___ S___ Advisor-approved CIOS course 3

Spanish Minor

This minor is designed to provide students with a full grammatical understanding of the language, plus a good handle on techniques for reading and writing, in addition to good command of vocabulary and idiomatic expressions. This program will stress active speaking and comprehension.

MINIMUM CREDIT HOURS* 18
SPAN S101 Elementary Spanish I 4
SPAN S102 Elementary Spanish II 4
SPAN S201 Intermediate Spanish I 4
SPAN S202 Intermediate Spanish II 4
SPAN S317 Spanish Conversation** 3
SPAN S318 Themes in Literature** 3
SPAN S331 Language and Culture of the Spanish Speaking World 3
*6 credits must be upper division
**May be repeated when content varies

Theatre Minor

The minor in theatre is designed to provide students with a broad introduction to the discipline of theatre as well as enhance their reading, speaking, research, writing, computer literacy, professional behavior, and critical thinking skills.

MINIMUM CREDIT HOURS 18
THR S211 Theatre History and Literature I 3
THR S212 Theatre History and Literature II 3
Select two from the following (6 credits):
THR S218 Studies in Theatre 3
THR S221 Acting I 3
THR S222 Acting II 3
THR S331 Directing I 3
THR S418 Advanced Studies in Theatre 3
Select from the preceding and following (6 credits total):
COMM S346 From Page to Stage: Oral Interpretation 3
ENGL S330 Shakespeare 3
ENGL S418 Themes in Literature (only when playwright or plays are the topic) 3
THR S391 S491 Internship in Production, Arts Administration, Acting 1-3
THR 394 S494 Practicum in Production, Arts Administration, Acting 1-3
THR S397 S497 Independent Study 1-3

Tlingit Language Minor

The minor in Tlingit is designed to provide students with an appreciation of the unique nature of the language, and with basic ability to communicate in culturally relevant settings, read and write the standard orthography, and understand the fundamental grammatical concepts used in linguistic analysis of Tlingit.
MINIMUM CREDIT HOURS 18
AKL S105 Beginning Tlingit I 4
AKL S106 Beginning Tlingit II 4
AKL S205 Intermediate Tlingit I 4
AKL S206 Intermediate Tlingit II 4
AKL S305 Advanced Tlingit I 3
AKL S306 Advanced Tlingit II 3
At least six credits must be upper division Tlingit language courses as appropriate.

Women’s and Gender Studies Minor

This minor is designed to provide a comprehensive overview of the academic study of women, the social construction of gender, gay, lesbian as well as race and class issues. This minor offers the opportunity to gain a broad perspective on the diverse academic approaches to the study of women in particular and of gender, race, class and sexuality in general.

MINIMUM CREDIT HOURS 18
WGS S201 Introduction to Women’s and Gender Studies 3
WGS S499 Senior Project in Women’s and Gender Studies 3
Select one from the following (3 credits):
SOC S301 Sociology of Close Relationships 3
SOC S377 Men, Women and Change 3
Select one from the following (3 credits):
PSY S269 Human Sexuality 3
PSY S313 Psychology of Women 3
Select one from the following (3 credits):
COMM S451 Gendered Interpersonal Communication 3
ENGL S421 Women and Literature: Selected Topics 3
Select one from the following (3 credits):
HIST S202 US Women’s History 3
HIST S280 History of Women in Europe 3
HIST S380 History of Gender and Sexuality in Modern Europe 3
Graduate Studies Programs

The mission of the UAS Graduate Studies Program is to prepare graduates who have developed a genuine mastery of a discipline, and who give promise of becoming lifelong learners.

Admission to graduate school is an opportunity; it is also a significant responsibility. Graduate school requires careful planning and a commitment to the study of a chosen discipline or profession.

Graduate study at UAS has as its principal purpose, the attainment of a high level of competence in a chosen field of learning. Upon completion of graduate studies, the graduate should be able to claim scholarly and professional standing in his or her field. The goal of scholarship should be the student’s strongest motivation as a graduate student.

The graduate program at UAS encompasses a well-defined and recognized area of advanced study. It consists of a sequence of courses, seminars, independent studies, and research investigations differing significantly from the undergraduate experience. The intellectual interaction among graduate students and their faculty remains the most significant factor in post-baccalaureate study. Most course work will be in small classes designed for graduate students only. The professors provide exceptional attention to the intellectual needs of each student. Working with peers in small groups provides intellectual challenges, support, and camaraderie that will have a permanent and positive impact on the student’s life. UAS’ graduate programs are designed to encourage students to develop and enhance these intellectual opportunities.

The following graduate programs are offered:

**Master of Arts in Teaching**
- Early Childhood Education (available by distance delivery)
- Elementary Education (K-8 Juneau)
- Elementary Education (K-8 Distance)
- Secondary Education (Juneau campus, also serving Sitka and outreach locations)

**Master of Education**
- Early Childhood Education (available by distance delivery)
- Educational Technology (available by distance delivery)
- Reading (available by distance delivery)
- Special Education (available by distance delivery)

**Master of Business Administration**
(Web-based, available by distance delivery)

**Master of Public Administration**
(Juneau campus, also available by distance delivery)

Admissions

Students who wish to earn an advanced degree are advised to seek formal admission to graduate study as soon as possible. Any courses taken before final admission to a graduate study program at UAS may be used as part of the graduate program only if approved by the student’s advisor. Students must not assume that they will be admitted to a degree program because they have been permitted to enroll in graduate courses. In general, students may be admitted to a master program if they have a bachelor’s degree appropriate to the intended master degree from an accredited institution and a GPA of 3.0 overall computed on a four-point scale. Program faculty will determine the adequacy of a student’s preparation to pursue graduate study in that area and whether program facilities are sufficient for the student’s goals. Fulfillment of minimum requirements does not guarantee admission to a graduate program, and graduate credit earned by a student before admission to a program might not be acceptable toward a degree.

Transcripts demonstrating baccalaureate degree(s) completion must be received prior to processing an application file.

Conditional Admission

Students who do not meet all the requirements for formal admission to graduate study may be granted conditional admission. Conditional admission is not automatic but is granted when the advisor and program dean judge that the student shows potential for advanced academic work. For purposes of conditional admission, UAS will temporarily accept unofficial transcripts. Official transcripts must be provided by the end of the first semester of attendance.
When conditions specified for change of status have been met, the student should contact his or her advisor. Admission to regular graduate status may then be recommended. The student will receive written notification of any change in status from the program dean. International applicants will not be considered for conditional admission.

**Active/Inactive Admission Status**

Students admitted to a graduate degree program will remain in active status for seven years from the date of their acceptance into the program regardless of the number of courses taken during any sub period of the seven-year interval. Students who are declared inactive and who wish to reapply must meet all requirements for readmission, including payment of the application fee.

**General University Requirements**

General university requirements for master degree students include maintaining a minimum GPA of 3.0 and completing the minimum credit hours required for their program. All courses must be post baccalaureate credits, and all but 6 semester credits must be at the 600 level. Courses at the 100-300 level cannot be used in graduate programs.

Courses at the 500 level earned at any University of Alaska campus or equivalent types of continuing education courses from any college or university may not be applied toward the degree program or be counted as an elective to complete the required number of credits. Non-catalog courses (i.e., 693 special topics) may be used in a graduate program with advisor approval. No more than 6 credits may be special topics. Specific course requirements for individual programs are listed in the official UAS catalog and in program bulletins.

**Graduate Advisor**

Students will be assigned to a graduate advisor. The graduate advisor recommends the student for advancement to candidacy, supervises the student’s research project or graduate exit portfolio (if applicable), and certifies the student’s completion of all degree requirements.

**Good Standing**

A student in good standing is one who maintains a B (3.0) average throughout his/her program. A grade of C is the minimum passing grade in any course in the student’s program.

**Academic Probation and Program Removal**

If a student’s graduate program grade point average drops below 3.0, the student will automatically be placed on academic probation and dropped from candidacy. Terms and conditions of the probation are determined by the advisor in conformance with UAS graduate study requirements. These may include specific conditions and/or credit limitations that the student must meet during his/her next enrollment at UAS. When the student is removed from academic probation, the student should contact his/her advisor to reapply for advancement to candidacy.

A student remaining on academic probation for two enrolled semesters will be removed from the program. To continue to pursue a degree, the student must submit a new application for admission including supporting documents and the application fee.

**Grading**

Generally, letter grades are used in graduate study at UAS. Some courses may, however, be offered as pass/fail. These are usually short courses, thesis or graduate portfolio credits. An explanation of the grading system appears elsewhere in this catalog.

**Transfer of Graduate Credits**

A maximum of 9 graduate credit hours may be transferred from another accredited institution outside the University of Alaska system if approved by the student’s advisor and the graduate dean. Applicants to UAS programs admitted to the same graduate program from UAA or UAF may transfer up to two-thirds of the credits required for the graduate degree program if approved by the student’s advisor and the graduate dean. At least one-third of the credits must be earned at UAS.

**Time Limit on Graduate Study**

All courses, projects, and theses required for a graduate degree program must be completed within a seven-year period from the semester of the first course and the semester of degree completion.

**Full-Time/Half-Time Status**

A graduate student enrolled in nine or more graduate semester credit hours or its equivalent will be classified as full time. Students enrolled in six, seven or eight graduate credits are classified as half-time.
Study Load, Summer Session

During summer session, students may not exceed a total of 12 credits without prior approval of the student’s advisor or the program dean. For sessions of one week, students may not exceed one credit hour.

Approval of the Program of Study

The program plan for a graduate degree is determined by the basic program requirements and by the student in consultation with and approval of the advisor. Faculty advisors provide guidance in selecting the courses which satisfy university and program requirements and which contribute to the academic and professional goals of the student. The advisor, program dean and graduate dean must approve the program of study before advancement to candidacy.

Advancement to Candidacy

After the student has been unconditionally admitted to the graduate program, and before applying for graduation, the student must submit to their program director an Advancement to Candidacy form that lists all courses to be applied to their degree. The Advancement to Candidacy form and any subsequent changes must be approved by the program director and the graduate dean.

Completion of Degree Requirements

Unless the advisor approves a substitution by revising the program of study, students must complete all courses listed on the advancement to candidacy form before the degree will be granted. Copies of the revised program of study must be sent to the Registrar at the time of the revision.

Graduation Requirements

Application for Graduation: Degree candidates must formally apply for graduation. A $25 fee is required. The application for graduation must be filed with the Office of Records and Registration no later than October 1 for Fall, February 15 for Spring, and July 1 for Summer completion.

Diplomas and Commencement: UAS issues diplomas to graduates at the end of each semester. Students who complete degree requirements during the academic year are invited to participate in the annual commencement ceremony held in May.

Enrollment During Semester of Graduation: Graduate students must be enrolled during the semester in which the degree is to be granted. Students whose only remaining requirement for the degree is the completion of the research project or professional portfolio must register and pay for at least one graduate credit during the semester in which the degree is to be granted. Extended Registration (EXTB or EXTE S693, non-credit) will satisfy this requirement. A student’s graduation may be delayed if he or she is not registered in the semester of graduation.

Grade Point Average: To meet graduation requirements, the student’s grade point average must be 3.0 or above.

Responsibility: The responsibility for meeting all requirements for graduation rests with the student.

Procedures for Second or Dual Master’s Degrees

Second Master’s Degree

The following procedures are required for students who wish to pursue a second master degree:

1. A new application for admission to the new program
2. All procedures required for the initial degree apply, including updated transcripts, if applicable; three new letters of reference; formal paper or letter of application; and payment of application fee
3. A maximum of 9 semester credit hours from other graduate degrees the student has received, may be approved by the advisor except for a transferring student who was in the process of earning a second degree from another University of Alaska campus. The rules under “Transfer of Graduate Credit” would then apply

Dual Master’s Degrees

A graduate student may work concurrently toward the completion of the requirements of two master’s degrees in complementary disciplines where an overlap of coursework and/or research occurs. The dual degree program is planned in consultation with and approved by the advisors from each program. The courses to be accepted dually for the two degrees shall be determined by the department(s) involved but may not exceed one-third of the required semester credits for a degree. If the two master’s programs have different totals for course credits, the one-third limit is determined by the smaller course total.

To ensure time for adequate planning, application for admission to the second program in the dual degree program must be made no later than one month before the semester in which the student starts the final one-third of the course credits for the first degree. All requirements for each degree must be met, and no more than 9 credits can be transferred from a previously awarded master’s degree.
The following procedures are required for students who wish to pursue dual master’s degrees:

1. A new application for admission to the second master’s program and payment of an additional application fee

2. Official transcripts for any University or college work attempted at other institutions in the interim between applying for the first and second master’s programs

3. A new formal paper or letter of application, where applicable, appropriate to the new program

4. New letters of reference, if applicable
MASTER’S DEGREES

Business Administration in Service Management, M.B.A.

Master of Business Administration
Distance Delivery
For updated information on application deadlines, continue to consult the website at: www.uas.alaska.edu/mba.

The master program in business administration is practice-oriented, relevant to Alaskan industries, and leads to a general master of business administration degree. The program features an initial three-day residential seminar in Juneau to set the agenda, ten 3-credit, graduate-level (600) business courses offered sequentially in a seven-week web-delivered format, and two additional elective courses selected in consultation with advisor. It is delivered to an annual cohort consisting of 25 students maximum. The program is two years in length. Student commitment to participate for the full two years is a condition of admission.

Prerequisites
Students entering the MBA program are expected to have introductory level knowledge of management, marketing, accounting, statistics, and micro- and macroeconomics. Students whose transcripts are deficient in any of these subjects must prove competency citing relevant business experience.

Application Requirements
1. Online application http://uasonline.alaska.edu at including the $50 application fee
2. Official academic transcripts sent directly to UAS from the college or university which awarded the baccalaureate degree
3. Professional resume or vita
4. A 1,200 word statement of professional objectives describing past managerial experience, outlining professional goals, and stating how the UAS MBA program might help you achieve your professional objectives. Please note how your background and experience will contribute to the quality of the discussion among program participants. In talking about your academic background, please include where and when you completed the prerequisite courses required in the UAS MBA classes
5. Three letters of reference must be sent directly from the referee. These three referees should preferably include someone familiar with your prior academic work and someone familiar with your managerial experience
6. Items 1-5 are required for a complete application file. If you wish, you may also submit any other documentation which you feel is relevant and important for our admission decision

Degree Requirements
Candidates for the Master of Business Administration degree must satisfy all University graduate degree requirements in the UAS catalog as well as the specific program requirements in this section.

MINIMUM CREDIT HOURS 36

MAJOR REQUIREMENTS 36
BA 5610 Management Information Systems 3
BA 5612 Organizational Theory and Behavior 3
BA 5618 Administrative Law for Managers 3
BA 5628 Managerial Accounting 3
BA 5646 Service Operations Management 3
BA 5670 Human Resource and Personnel Management 3
BA 5689 Research in Business Administration 3
BA 5690 Business Administration Capstone 3
BA 5692A Seminar in Finance 3
BA 5692B Seminar in Marketing 3
___ S ___ Advisor-approved electives* 6

*May be chosen from 600-level business or public administration courses or 400-level business courses not used as part of the undergraduate degree, or may transfer 600-level business or public administration courses from another accredited institution. All choices must be approved in advance.

Public Administration, M.P.A.

Master of Public Administration
Distance Delivery
The master program in public administration provides a strong interdisciplinary context in which to pursue the study of policy formation, implementation, and administration.

Application Requirements
Admission to the Master of Public Administration degree requires the following:
1. A completed online application at http://uasonline.alaska.edu
2. $50 application fee
3. Official academic transcript indicating baccalaureate degree sent directly to UAS
4. Professional resume or vita
5. Two page (approximately 1,000 words) statement of professional objectives describing past public and non-profit experiences, outlining professional goals and stating how the MPA program will help achieve your professional objectives
6. Three current letters of recommendation sent directly to UAS

Items 1-6 are required for a complete application file. If you wish, you may submit any other documentation which you feel is relevant. Items 4 and 5 may be submitted by e-mail. See Graduate Study – Admissions for more information.

Admission Requirements
Applicants are required to have taken an introductory course in government (or demonstrate knowledge by taking the CLEP exam) for admission to the program. Individual courses may have their own prerequisites.

Degree Requirements
Candidates for the Master of Public Administration degree must satisfy all University graduate degree requirements in this catalog as well as the specific program requirements in this section. A minimum of 36 approved credits is required for the degree, in addition to evidence of practical experience in public or non-profit administration.

In order to permit students to pursue individual interests, a limited substitution of required courses is possible. Course substitutions must be approved by the student’s advisor and the program dean. The student’s approved program of study is reflected in the Application for Advancement to Candidacy.

To qualify for graduation from the MPA program, students must complete either the “Capstone” Course (PADM S690, 3 credits) or a master’s thesis (PADM S699, 3 to 6 credits). Students must pass either with a grade of B or higher to graduate.

Master of Public Administration Concentrations

MPA students have the option to use their electives to establish a concentration in either Rural Development or Criminal Justice. Coursework for these concentrations is offered by distance technologies through the Rural Development and Justice programs at the University of Alaska Fairbanks.

Concentration in Rural Development
The Rural Development concentration has a special focus on needs of indigenous and other rural communities, including management of tribal governments, community organizations, and indigenous-controlled profit and non-profit corporations.

**CONCENTRATION REQUIREMENTS**

| RD F601 | Political Economy of the Circumpolar North | 3 |
| RD F651 | Management Strategies for Rural Development | 3 |
| | Advisor-approved course* | 3 |

*To be selected in consultation with the UAF Rural Development Advisor and MPA Program Director.

Concentration in Criminal Justice
The Criminal Justice concentration emphasizes the application of justice issues and concepts to Alaska, preparing students to meet the challenges of a modern society and the Justice professions.

**CONCENTRATION REQUIREMENTS**

| JUST F605 | Administration and Management of Criminal Justice Organizations | 3 |
| JUST F640 | Community/Restorative Justice | 3 |
| | Advisor-approved course* | 3 |

*To be selected in consultation with the UAF Justice Advisor and MPA Program Director.

Fisheries, M.S. through UAF

Master of Science
Juneau

Degree Requirements
Admission to the master of science in fisheries degree program is governed by the general requirements for admission to graduate study. Candidates for the master of science in fisheries degree must satisfy all general and University degree requirements. A total of 30 credits is required of which a minimum of 24 credits must be at the 600 level. Up to 6 credits of 400-level course work
Master’s Degrees

Master’s Degrees may be substituted for the 600–level course work by approval of the graduate committee. A thesis reporting the results of original research is an important part of each student’s individualized program of studies. Students may take classes at Fairbanks, Juneau, Kodiak, Seward, and other fisheries facilities of the University of Alaska to obtain a broad-based graduate education in fisheries. Primary course offerings at the graduate level are offered in Fairbanks and Juneau.

**MINIMUM CREDIT HOURS** 30

(F) course offered at Fairbanks  (J) course offered at Juneau

**PREREQUISITES**

**Complete both:**
- MATH S200/F200 Calculus I 4
- STAT S273/F301 Elementary Statistics 3

**Complete one of the following:**
- BIOL S305/F305 Invertebrate Zoology 4
- BIOL S427 Introduction to Ichthyology 4
- FISH F427 Ichthyology 4

**PROGRAM REQUIREMENTS** 12–18

- STAT S401/F401 Regression and Analysis of Variance 4
- FISH F699 Thesis Research 6-12

**Electives (include at least one of the following):**
- FISH F421 Fisheries Population Dynamics 4
- FISH F601 Quantitative Fishery Science 3
- FISH F621 Advanced Fish Population Dynamics I 4
- FISH F622 Advanced Fish Population Dynamics II 4

**GRADUATE SEMINARS (in the appropriate discipline)** 2

The student shall submit a satisfactory thesis on a topic approved by his or her graduate committee. Students working in subject areas involving significant non-English literature may be expected to demonstrate the capacity to read the appropriate foreign language.

For further information contact an advisor at the UAF School of Fisheries and Ocean Sciences.

---

**UAF School of Fisheries and Ocean Sciences**

The School of Fisheries and Ocean Sciences is part of the University of Alaska Fairbanks. It is collocated with the UAS Juneau Science Programs. The School is home to the program in Fisheries (with faculty in Juneau and Fairbanks) and the graduate program in Marine Sciences and Limnology (based in Fairbanks).

The Center enjoys access to a wide spectrum of marine and freshwater habitats. The natural environment serves as classrooms and research laboratory for students. The research engaged in by the faculty and graduate students covers problems from all over Alaska, from Southeast Alaska waters to the Bering Sea.

In addition to a variety of Fisheries courses, the Center’s faculty offers instruction in advanced courses in Statistics. The M.S. and Ph.D. in Fisheries are offered to prepare students for careers in fisheries management, fisheries research, or general aquatic biology.

Research programs currently include conservation biology of salmon, evolution and systematics of marine fish, management of sustainable fisheries, dynamics of exploited populations, toxic effects of pollutants, population biology of marine mammals, culture of salmon and seaweeds, molecular and population genetics, and stock separation techniques.

The three-story Anderson building (15,000 sq. ft.) is located on the Auke Bay shore adjacent to the U.S. National Marine Fisheries Service, Auke Bay Laboratory, approximately 12 miles north of Juneau. The building is equipped with a high-quality seawater system, walk-in freezer, cold-room, wet and dry-lab research facilities and advanced lab instrumentation. Rented offices house several faculty, a classroom, a large computer lab, and a study area.

Financial assistance for graduate students is provided through research assistantships from state, federal and industry-funded grants to the Center and through University fellowships.

fisheries@uaf.edu
www.sfos.uaf.edu/fishdiv
Degree Programs

Bachelor of Science in Fisheries
Upper-division Fisheries courses are offered at the Juneau Center to qualified undergraduates; the B.S. Fisheries program is located on campus at Fairbanks.

Master of Science in Fisheries

Doctor of Philosophy
Note: There are specific requirements for admission to the M.S. and Ph.D. in fisheries program. Refer to the University of Alaska Fairbanks Graduate Catalog. www.uaf.edu/catalog/current/grad/enroll.html

Dean
Denis Wiesenburg

Faculty
Milo D. Adkison
Associate Professor of Quantitative Fisheries

Keith Criddle
Ted Stevens Distinguished Professor of Marine Biology

Ginny Eckert
Associate Professor of Biology
(UAS with joint appointment UAF)

Richard Gard
Professor of Fisheries, Emeritus (UAS)

Anthony J. Gharrett
Professor of Fisheries

Lewis J. Haldorson
Professor of Fisheries, Emeritus

Nicola Hillgruber
Assistant Professor of Fisheries

Nicholas Hughes
Associate Professor of Fisheries

Brendan P. Kelly
Associate Professor of Biology
(UAS with joint appointment UAF)

Gordon Kruse
Professor of Fisheries

Ole A. Mathisen
Professor of Fisheries, Emeritus

Terrance J. Quinn II
Professor of Fish Population Dynamics

William W. Smoker
Professor of Fisheries

Michael S. Stekoll
Professor of Chemistry and Biochemistry
(UAS with joint appointment UAF)

David Tallmon
Assistant Professor of Biology
(UAS with joint appointment UAF)

Sherry Tamone
Associate Professor of Biology
(UAS with joint appointment UAF)
MASTER’S DEGREES IN EDUCATION

Master of Arts in Teaching

The Master of Arts in Teaching (M.A.T.) programs are designed for students who have completed a baccalaureate degree with content coursework appropriate to their teaching area and grade level and who are seeking a teaching certificate. M.A.T. programs at UAS have been awarded national recognition through the National Association for the Education of Young Children (NAEYC), the Association of Childhood Education International (ACEI), the National Council of Teachers of English (NCTE), the National Council of Teachers of Mathematics (NCTM), and the National Science Teachers Association (NSTA). Other subject areas are in process of applying for national recognition. The M.A.T. programs are delivered two ways:

1. One-year intensive programs in elementary education or secondary education
2. A distance program in elementary education for those in Alaska rural communities or for others who desire this flexibility

For a complete application packet containing all the forms and instructions (Juneau programs), call (907) 796-6424 for M.A.T. Elementary and Secondary, and (907) 796-6424 for M.A.T. Early Childhood Education. The toll free number for all programs is 1-866-465-6424. Or find application and program information online www.uas.alaska.edu/education. Select “Graduate”.

Application Requirements

Admission to the Master’s of Arts in Teaching program requires the following:

1. A completed graduate application and $50 processing fee
2. An official transcript indicating baccalaureate degree and a GPA of 3.0
3. Transcripts from all universities or colleges attended. These will be used for assessment of applicant’s content preparation
4. Two recommendations addressing professional dispositions on specific forms provided by the UAS School of Education
5. A writing sample consisting of two individual pieces: 1) a statement of professional objectives and 2) an impromptu writing sample
6. An official copy of Praxis I exam results with passing scores
7. Signed waiver form to allow potential host teachers access to student application information
8. Completed student information sheet
9. Applicants for the M.A.T. Elementary distance program must also submit documentation of successful work with children in an elementary or early childhood school setting along with a Memorandum of Agreement from the local school district administration
10. Applicants to the M.A.T. Secondary and M.A.T. Early Childhood Education must submit a resume

Praxis I and II Exams

To successfully graduate from the programs, interns must pass all three sections of the Praxis I exam at state approved levels. Passing CBEST scores in reading, writing, and mathematics may be submitted in lieu of passing Praxis I scores.

Prior to completing the M.A.T. program, prospective teachers must pass Praxis II content exams meeting Alaska cut scores. Elementary candidates take the Praxis II exam Elementary Content Knowledge 0014.

For Secondary students, the Praxis II exam(s) will be in the content area where endorsement is desired. See your advisor for information about which content area Praxis II tests are recognized by the State of Alaska.

M.A.T. Elementary and Secondary Programs, Juneau

The M.A.T. Elementary program based in Juneau and the M.A.T. Secondary program based in Juneau and also serving Sitka and other selected sites are intensive 12-month classroom-based programs designed to serve baccalaureate graduates who wish to prepare for a career in either elementary or secondary teaching. The programs operate on a one-year cycle beginning in July. Upon successful completion of one of these programs, students will receive a Master of Arts in Teaching degree and be recommended for an Alaska Initial elementary (grades K-8) or secondary (grades 7-12) teaching certificate. Certification is granted by the Alaska Department of Education and Early Development (DEED).

In addition to the admission requirements listed, a student teacher placement in a school district must be available for the applicant.

The Juneau M.A.T. Elementary and Secondary programs consist of an introductory summer session, two semesters of intensive internship with course work, and
Master's Degrees in Education

**Master's Degrees in Education**

Phase One:

A seven week summer session that prepares students to begin the school year as teacher-interns.

Phases Two and Three:

- **Elementary Students.** During the public school year (end of August through the end of May), the M.A.T. student serves as an intern with a team of two teachers in an elementary school and/or middle school thereby broadening their experience by visiting contrasting grade levels on a regular basis. In the fall semester, interns will be at their assigned school three days a week and take course work on campus two days a week plus one evening. In the spring semester, interns will be at their assigned schools four days a week and take course work on campus one day a week plus one evening.

- **Secondary Students.** During the public school year (end of August through the end of May), the M.A.T. student serves as an intern with a host teacher in a middle school or high school. In the fall and spring semesters, interns will be at their assigned schools four days a week and take course work on campus one day a week plus one evening.

Phase Four:

A one-month summer session will draw on the recent classroom experiences of students and extend their knowledge and preparation for the profession.

The application deadline for the M.A.T. Elementary and Secondary programs in Juneau is early March.

### Elementary Education, M.A.T.

**Master of Arts in Teaching**

**Juneau**

Students who enroll in the M.A.T. Elementary program in Juneau must show evidence of adequate course work or demonstrate knowledge in the basic content areas of history, literature, composition, mathematics, biological science, physical science, and the arts. Placements for this program are only available in Juneau.

<table>
<thead>
<tr>
<th>MINIMUM CREDIT HOURS</th>
<th>40</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAJOR REQUIREMENTS</td>
<td>40</td>
</tr>
<tr>
<td>ALST ALST S600</td>
<td>3</td>
</tr>
<tr>
<td>ED ED S620</td>
<td>3</td>
</tr>
<tr>
<td>ED ED S626</td>
<td>3</td>
</tr>
<tr>
<td>ED ED S630</td>
<td>3</td>
</tr>
<tr>
<td>ED ED S632</td>
<td>3</td>
</tr>
<tr>
<td>ED ED S640</td>
<td>1</td>
</tr>
<tr>
<td>ED ED S641</td>
<td>1</td>
</tr>
<tr>
<td>ED ED S643</td>
<td>1</td>
</tr>
<tr>
<td>ED ED S645</td>
<td>1</td>
</tr>
<tr>
<td>ED ED S666</td>
<td>2</td>
</tr>
<tr>
<td>ED ED S680</td>
<td>3</td>
</tr>
<tr>
<td>ED ED S681</td>
<td>3</td>
</tr>
<tr>
<td>ED ED S682</td>
<td>3</td>
</tr>
<tr>
<td>ED ED S686</td>
<td>3</td>
</tr>
<tr>
<td>ED ED S687</td>
<td>2</td>
</tr>
<tr>
<td>ED ED S691</td>
<td>2</td>
</tr>
<tr>
<td>ED ED S691</td>
<td>3</td>
</tr>
<tr>
<td>Exit Criteria</td>
<td></td>
</tr>
<tr>
<td>1. A Master's Portfolio that provides evidence that the student meets all program goals/outcomes</td>
<td></td>
</tr>
<tr>
<td>2. Praxis I exam scores meeting Alaska cut scores</td>
<td></td>
</tr>
<tr>
<td>3. Praxis II exam scores meeting Alaska cut scores</td>
<td></td>
</tr>
<tr>
<td>4. 3.0 GPA</td>
<td></td>
</tr>
</tbody>
</table>

**Contact:**

Dr. Mary-Claire Tarlow  
(907) 796-6435  
maryclaire.tarlow@uas.alaska.edu

**Elementary Education, M.A.T.**

**Distance Delivery**

This program is offered by distance delivery methods to students in rural communities and others who desire the flexibility of a distance program. Students in this program must be self-directed learners, must have access to high speed internet connections, and must schedule time during the school year to complete weekly intensive practicum assignments as well as a semester of student teaching in an elementary or middle school. The Elementary certification program is embedded in the M.A.T. program. For more information on certification see the Professional Certification Programs section of this catalog. This program leads to a master's degree as well as recommendation for an Alaska Initial Elementary (grades K-8) teaching certificate.

M.A.T. Elementary applicants should apply for the Elementary certificate program at the same time they apply to the M.A.T. program. Applicants should consult with an advisor for individual program scheduling.

**Admission Application deadlines.**

- Fall: July 15
- Spring: Nov. 1
- Summer: April 1
Master’s Degrees in Education

**MINIMUM CREDIT HOURS:** 42

**PREREQUISITES** 15
ALST S300  Alaska Studies 3
ED S230  Introduction to Educational Technology* 3
ED S304  Literature for Children and Young Adults 3
ED S320A  Art in the K-8 Curriculum 1
ED S320B  Physical Education in the K-8 Curriculum 1
ED S320C  Music in the K-8 Curriculum 1
ED S333  The Learner and the Learning Process* 3

*ED S230 and ED S333 must be completed before registering for graduate-level coursework

**MAJOR REQUIREMENTS** 42
ED S615  Literacy in the Intermediate and Middle School Grades 3
ED S616  Math Methods in the K-8 Classroom 3
ED S617  Science Methods in the K-8 Classroom 3
ED S618  Social Studies Methods in the K-8 Classroom 3
ED S619  Classroom Management and Discipline 3
ED S661  Literacy and Young Children 3
ED S680  Advanced Multicultural Education 3
ED S688  Student Teaching 6
ED S692  Education Seminar 3
EDSE S482  The Inclusive Classroom for All Children 3

Recommendation for certification will be granted upon successful completion of the above coursework and the prerequisite coursework. Students are encouraged to complete the remaining coursework required for the M.A.T. degree during their initial years as classroom teachers:

ED S626  Classroom Research 3
ED S698  Master’s Research Project or Portfolio 3

Select one from the following (3 credits):
ED S628  Technology in Instructional Design 3
ALST S300  Alaska Studies 3
HIST 341  History of Alaska 3

Note: ED S230 must be completed before registering for graduate-level coursework

**Exit Criteria**
1. A Master’s Portfolio that provides evidence that the student meets all program goals/outcomes
2. Praxis I exam scores meeting Alaska cut scores
3. Praxis II exam scores meeting Alaska cut scores
4. 3.0 GPA

Contact: Dr. Katy Spangler  (907) 694-7019  katy.spangler@uas.alaska.edu

---

**Early Childhood Education, M.A.T.**

Master of Arts in Teaching
Distance Delivery

This program is offered by distance delivery methods to students in rural communities and others who desire the flexibility of a distance program. Students in this program must be self-directed learners, must have access to high speed Internet connections, and must schedule time during the school year to complete weekly intensive practicum assignments as well as a semester of student teaching in an elementary or middle school. The Early Childhood Education Certificate program is embedded in the Master of Arts in Teaching program. For more information on the certification see the Professional Credential Programs section of this catalog. This program leads to a Masters’ degree as well as recommendation for an Alaska Initial Early Childhood Education (grades PreK-3) teaching certificate.

Applicants should consult with an advisor for individual program scheduling:

**MINIMUM CREDIT HOURS:** 39

**PREREQUISITES** 15
ED S230  Intro to Educational Technology 3
ED S301  Parents and Teachers as Partners 3
ED S304  Literature for Children and Young Adults 3
ED S319  Health & Safety Issues in ECE 1
ED S321  ECE and Motor Development 1
ED S324  Enhancing Young Children’s Creative Development 1

Select one from the following (3 credits):
ALST S300  Alaska Studies 3
HIST 341  History of Alaska 3

Note: ED S230 must be completed before registering for graduate-level coursework

**MAJOR REQUIREMENTS** 39
ED S465  Math & Science for Young Children 3
ED S605  Early Childhood Education Principles & Practices 3
ED S610  Guidance & Discipline in Early Childhood Education 3
ED S652  Understanding & Teaching Young Children I: Social and Emotional Development 3
ED S661  Literacy and Young Children 3
ED S664  Young Children & Classroom Management 3
ED S680  Advanced Multicultural Education 3
ED S688  Student Teaching 6
EDSE S___ Special Education Course 3

Select one from the following (3 credits):
ED S628  Technology in Instructional Design 3
ED S692  Education Seminar 3

Recommendation for certification will be granted upon successful completion of the above coursework and the prerequisite coursework. Students are encouraged to complete the remaining coursework required for the M.A.T. degree during their initial years as classroom teachers:

ED S626  Classroom Research 3
ED S698  Master’s Research Project or Portfolio 3

Select one from the following (3 credits):
ED S628  Technology in Instructional Design 3
ED S692  Education Seminar 3
Exit Criteria
1. A Master’s Portfolio that provides evidence that the student meets all program goals/outcomes
2. Praxis I exam scores meeting Alaska cut scores
3. Praxis II exam scores meeting Alaska cut scores
4. 3.0 GPA

Contact: Dr. Cara Wicks-Ortega
(907) 796-6412
cara.wicksortega@uas.alaska.edu

Secondary Education, M.A.T.

Master of Arts in Teaching
Juneau
The Master of Arts in Teaching, Secondary program is for students who have completed a baccalaureate degree and who are seeking a teaching certificate in secondary or middle grades education. Applicants to this program must show evidence of the successful completion of an established teaching major in a subject normally taught in Alaska secondary schools (e.g. English language arts, social studies, mathematics, sciences). Placements for this program are made in Juneau, Sitka, and selected other Alaska communities. A total of 36 graduate credits are required.

MINIMUM CREDIT HOURS: 36

MAJOR REQUIREMENTS 36

ALST S600 Alaska’s Resources, People, and Perspectives 3
ED S612 School-Community Relations 3
ED S620 Curriculum Development 3
ED S627 Educational Research 3
ED S630 Classroom Integration of Tool Software 3
ED S631 Advanced Educational Psychology 3
ED S632 Classroom Internet Integration 3
ED S679 Reading and Literacy in the Content Area 3
ED S680 Advanced Multicultural Education 3
ED S691 Teaching Internship I (Fall) 3
ED S691 Teaching Internship II (Spring) 3
ED S692 Educational Seminar 3

Exit Criteria
1. A Master’s Portfolio that provides evidence that the student meets all program goals/outcomes,
2. Praxis I exam scores meeting Alaska cut scores,
3. Praxis II exam scores meeting Alaska cut scores,
4. 3.0 GPA

Contact: Dr. Dave Marvel
(907) 796-6079
dave.marvel@uas.alaska.edu

Master of Education
The M.Ed. is offered with emphasis in Early Childhood Education, Educational Technology, Reading, and Special Education. The Master of Education programs extend and develop classroom skills and abilities of practicing teachers in elementary and secondary education. Applicants to the Master of Education program must have a Bachelor of Education degree or its equivalent from an accredited institution, and/or a current teaching certificate.

Application Requirements
Admission to the Master of Education Program requires the following:
1. A completed application and $50 processing fee
2. Official academic transcript indicating a baccalaureate degree and a GPA of 3.0
3. Two recommendations addressing professional dispositions on specific forms provided by the UAS School of Education
4. Statement of Professional Objectives. This is a 2-3 page typewritten and double spaced formal paper containing a summary of educational experiences, a description of professional goals related to what is needed to teach students in Alaska and beyond, and a statement of how the program for advanced teaching candidates might help in attaining those goals. (An advanced teaching candidate is someone who is currently teaching, has taught, has experience in education, or has a teaching credential and access to a classroom for field experience.) This statement will be judged in terms of readability and style as well as compatibility of the student’s objectives and expectations and the goals of the program
5. A sample of professional or work-related writing or media production demonstrating proficiency in writing and/or computer-mediated communications
6. Field experience statement form, also available in packet of application materials, if required
7. A copy of a current teaching or administrative certificate, or program coordinator’s permission is required for entry into the M.Ed. Reading and preferred for entry into the M.Ed. Educational Technology program.

Applicants to the M.Ed. Early Childhood Education and M.Ed. Reading programs should also apply to the appropriate certificate program at this time.
Early Childhood Education, M.Ed.  
(Grades Preschool and K-3)  

Master of Education  
Distance Delivery  

The M.Ed. Early Childhood Education program is designed as a part-time program for practicing preschool and primary teachers, with an emphasis on classroom application. It is possible for teachers to complete the course work during two school years and three summers, while teaching in their own district. Though most of the program can be distance delivered, at least two weeks of on-campus time is required during two summers.

The purpose of this program is to extend and develop classroom skills and abilities for practicing teachers in levels pre-kindergarten through third grade. The plan of study should reflect the graduate student’s own professional and personal growth objectives. A maximum of 3 credits of 400-level coursework can be included in the approved plan of study.

The M.Ed. Early Childhood Education program is not a teacher certification program. The program has earned national recognition through the National Association for the Education of Young Children (NAEYC.)

MINIMUM CREDIT HOURS 33  

MAJOR REQUIREMENTS 24  
ED S465 Math and Science for Young Children 3  
ED S605 Early Childhood Education Principles and Practices 3  
ED S610 Guidance and Discipline in Early Childhood Education 3  
ED S652 Understanding and Teaching Young Children I: Social and Emotional Development 3  
ED S653 Understanding and Teaching Young Children II: Creative, Physical and Healthy Development 3  
ED S661 Literacy and Young Children 3  
ED S664 Young Child and Classroom Management 3  
ED S698 Master’s Research Project or Portfolio 3  

ELECTIVES 9  
Select 3 credits from each of the following areas (9 credits total):  
- Research  
- Technology  
- Special Student Populations or Multicultural Education  

The Master’s Research Project or Portfolio must provide evidence that the student meets all program goals/outcomes.

Contact: Dr. Cara Wicks-Ortega  
(907) 796-6412  
cara.wicksortega@uas.alaska.edu

Educational Technology, M.Ed.  

Master of Education  
Distance Delivery  

The M.Ed. in Educational Technology develops the skills and abilities to make effective use of technology in a classroom setting. The Educational Technology program has been awarded national recognition by the International Society for Technology in Education. ED S698 Master’s Research Project or Portfolio is the final course in the program sequence. The Master’s Research Project or Portfolio must provide evidence that the student meets all program goals/outcomes.

The M.Ed. Educational Technology program is not a teacher certification program. For an initial teaching certificate see Bachelor of Arts in Elementary Education programs, or Masters of Arts in Teaching programs. Students wanting a K-12 Educational Technology teaching endorsement must also apply to the Educational Technology Certificate Program.

MINIMUM CREDIT HOURS 33  

MAJOR REQUIREMENTS 33  
ED S626 Classroom Research 3  
ED S628 Technology in Instructional Design 3  
ED S632 Classroom Internet Integration 3  
ED S633 Classroom Integration of Multi-Media 3  
ED S634 Classroom Integration of Audio-Video Technology 3  
ED S635 Thinking About Technology 3  
ED S668 Educational Technology Leadership 3  
ED S670 Planning for Educational Technology 3  
ED S673 Educational Applications of Networking 3  
ED S697 Independent Study * 3  
ED S698 Master’s Research Project or Portfolio 3  

*Or one advisor-approved elective  

For further information go to: http://pec.jun.alaska.edu  

Contact: Dr. Marsha Gladhart  
(907) 796-6047  
marsha.gladhart@uas.alaska.edu.
Reading, M.Ed.

Master of Education

Distance Delivery

The M.Ed. in Reading program is designed specifically to deepen P-12 teachers’ pedagogical content knowledge with the aim of improved student literacy achievement. This program is delivered in face-to-face and distance formats so that it is possible to complete the degree while teaching in your own district. Technological tools facilitate course delivery, communication, and research. Enhancements include streamed video, braided discussions, audio conferencing, video reflections, and use of Internet resources. Students in the master’s reading program focus on developmental, cognitive, and sociocultural aspects of reading acquisition, instruction, and assessment. Professional and caring attitudes and beliefs about teaching lead to responsive and rigorous instruction in reading and literacy for all P-12 students, including those who are culturally and linguistically diverse. Accomplished teaching professionals promote collaboration with students, colleagues, parents, families, and the larger community to improve literacy learning and student achievement in their contexts. Students prepare an exit portfolio in line with the goals of the School of Education and the program standards of the International Reading Association to demonstrate levels of knowledge and pedagogy commensurate with the skills and dispositions of highly competent advanced teaching professionals.

The International Reading Association awarded the graduate UAS Reading program national recognition in 2004.

MINIMUM CREDIT HOURS 33

PROGRAM REQUIREMENTS 33

ED S671 Language Reading and Culture 3
ED S674 Developing Reading ECE-12 3
ED S675 Reading and Cognition 3
ED S676 Reading Instruction and Assessment I 3
ED S677 Reading Instruction and Assessment II 3
ED S678 Literature and Reading, Supporting Readers at All Levels 3
ED S679 Reading and Literacy in the Content Areas 3
ED S696 Reading Teacher as Leader* 3
ED S628 Technology in Instructional Design 3
ED S626 Classroom Research 3
ED S698 Master’s Research Project or Portfolio 3

*Must pass ED S696 with a B or higher to graduate

Recommendation for certification will be issued upon completion of the above coursework. The Alaska Department of Education and Early Development grants the endorsement upon completion of the Institutional Recommendations and the required fee from the student. Students must be accepted into the endorsement program.

Contact: Dr. Shirley Kaltenbach
(907) 796-6053
shirley.kaltenbach@uas.alaska.edu

Special Education, M.Ed.

Master of Education

Distance Delivery

The M.Ed. program in Special Education prepares teachers to develop and implement culturally responsive special education services for students with disabilities. The program focuses on the unique needs of (a) children and youth with disabilities; (b) Alaska’s diverse Native and non-Native communities; and (c) Alaska’s remote and rural communities.

The M.Ed. program in Special Education is designed to accommodate practicing teachers, paraprofessionals, and other school-based professionals. Courses are, therefore, offered in the afternoons and evenings and in the summer. All courses are delivered via teleconference and augmented with online resources. This distance-delivered format allows candidates who live and work in Alaska’s remote and rural communities to remain in their communities while completing their graduate studies.

MINIMUM CREDIT HOURS (36)

ED S626 Classroom Research 3
ED S692 Education Seminar 3
ED S698 Master’s Research Project 3
EDSE S605 Early Childhood Special Education 3
EDSE S610 Assessing of Students with Disabilities 3
EDSE S612 Curriculum & Strategies I: Low Incidence 3
EDSE S622 Curriculum & Strategies II: High Incidence 3
EDSE S677 Teaching Reading to Struggling Learners 3
EDSE S682 Inclusive Education for Students with Disabilities 3
EDSE S685 Transition Considerations for Secondary Students with Disabilities 3
EDSE S694 Special Education Practicum 3
EDSE S695 Special Education Portfolio 3

Contact: Dr. Thomas Scott Duke
(907) 796-6029
thomas.duke@uas.alaska.edu
CERTIFICATES AND ENDORSEMENT ELIGIBILITY

Graduate Certificates

Available in:
- Early Childhood Education
- Educational Technology
- Elementary Education Mathematics Education (K-8)
- Reading (K-8)
- Special Education

Graduate certificates provide candidates with eligibility endorsements to an Alaska teaching certificate. All course work must be completed within a seven-year period immediately preceding the date the graduate certificate is granted. Graduate certificates are granted by the University of Alaska Southeast; UAS provides the institutional recommendation to the Alaska Department of Education and Early Development for endorsement.

Admission Requirements


1. Application for admission and $50 fee
2. Copy of a current Alaska teaching certificate
3. Official transcript(s) are required only for courses transferred in from another institution

Call (907) 796-6424 (toll free: 1-866-465-6424) for application materials. Call (907) 796-6047 for Educational Technology application materials or go to www.uas.alaska.edu/education.

There are additional requirements for applicants who wish to pursue the M.Ed. in Early Childhood education or in Educational Technology. See Graduate Studies section for admission requirements for these degrees.

Early Childhood Education Certificate

(Grades Preschool and K-3)

Teaching Graduate Certificate
Distance Delivery

MINIMUM CREDIT HOURS 21

CERTIFICATE REQUIREMENTS 21
ED 5465 Math and Science for Young Children* 3
ED 5605 Early Childhood Education Principles and Practices 3
ED 5610 Guidance and Discipline in Early Childhood Education 3
ED 5652 Understanding and Teaching Young Children I: Social and Emotional Development 3
ED 5653 Understanding and Teaching Young Children II: Creative, Physical and Healthy Development 3
ED 5661 Young Children and Literacy 3
ED 5664 Classroom Management for Young Children 3

*Prerequisite: Any 100-level mathematics course with a B or higher.

Exit Requirements

1. GPA of 3.0
2. Satisfactory completion of courses

Contact: Dr. Cara Wicks-Ortega (907) 796-6412 cara.wicksortega@uas.alaska.edu

Educational Technology Certificate

(Grades K-12)

Teaching Graduate Certificate
Distance Delivery

MINIMUM CREDIT HOURS 21

CERTIFICATE REQUIREMENTS 21
ED 5628 Technology in Instructional Design 3
ED 5632 Classroom Internet Integration 3
ED 5633 Classroom Integration of Multi-Media 3
ED S634 Classroom Integration of Audio-Video Technology 3
ED S635 Thinking About Technology 3
ED S673 Educational Applications of Networking 3
ED S697 Advisor-approved Independent Study or elective course 3

Exit Requirements
1. Satisfactory completion of courses
2. Faculty Evaluation
3. GPA of 3.0

Contact: Dr. Marsha Gladhart
(907) 796-6047
marsha.gladhart@uas.alaska.edu

Elementary Education Certificate

Distance Delivery
The teacher certification program in Elementary Education is a non-degree post-baccalaureate program of study that leads to recommendation for an elementary Initial Teacher Certificate. The program is offered by distance delivery only and is available to students in urban and rural areas throughout Alaska. Students in the program must be self-directed learners, must have access to high speed Internet connections, and must schedule time during the school year to complete weekly intensive practicum assignments and a semester of student teaching in an elementary or middle school. Certification students must receive the approval of the local school district, as extensive practicum experiences are required.

Courses are delivered via audio conference, DVD, online conferencing, and/or correspondence. Students should be familiar with using email, the Internet, and computer conferencing and should have access to a speakerphone, a digital camera, a digital video camera, a scanner, and a fax machine.

Applicants must have a bachelor’s degree with a general education background from an accredited institution. The program advisor will examine transcripts to determine if the applicant has sufficient background in writing, mathematics, social science, science, psychology, arts, physical education, and health. Applicants who lack sufficient background in one or more of these areas can expect to take additional coursework.

Certification students may opt to apply to the distance delivered Master of Arts in Teaching program after completion of the 300- and 400-level courses in their program with a GPA of 3.0 or higher. Applicants must submit a new graduate application form and $50 processing fee.

Application Requirements
Admission to the certification program requires the following, in addition to those listed on page 121:
1. A completed credential application and $50 processing fee
2. An official transcript indicating baccalaureate degree and a GPA of 3.0
3. Two recommendations on specific forms available from the School of Education.
4. A writing sample consisting of two pieces:
   1.) a statement of professional objectives
   2.) an impromptu writing sample
5. An official copy of Praxis I test scores
6. Letter of support from local school district administration
7. Documentation of successful work with children in an early childhood or elementary school setting
8. Signed waiver form to allow potential host teachers access to student application information
9. Student information sheet

Praxis II Exam
Application materials are available at www.uas.alaska.edu/education. To successfully graduate from the program, interns must pass all three sections of the Praxis II exam at state approved levels.

**MINIMUM CREDIT HOURS** 42

**PREREQUISITES** 3
ED S230 Intro to Educational Technology 3
*Content competency in writing, mathematics, social science, science, psychology, arts, physical education, and health*

**CERTIFICATION REQUIREMENTS** 42
ALST S300 Alaska Studies 3
ED S304 Literature for Children and Young Adults 3
ED S320A Art in the K-8 Curriculum 1
ED S320B Physical Education in the K-8 Curriculum 1
ED S320C Music in the K-8 Curriculum 1
ED S333 The Learner and the Learning Process* 3
ED S615 Literacy in the Intermediate and Middle School Grades 3
ED S616 Math Methods in the K-8 Classroom 3
ED S617 Science Methods in the K-8 Classroom 3
ED S618 Social Studies in the K-8 Classroom 3
ED S619 Classroom Management and Discipline 3
ED S661 Literacy and Young Children 3
ED S680 Advanced Multicultural Education 3
ED S688 Student Teaching 6
EDSE S482 Inclusive Classrooms for All Children 3

*ED S333 must be completed prior to graduate-level classes.
Mathematics Education (K-8) Certificate

Teaching Graduate Certificate
Distance Delivery

The Mathematics Education (K-8) Certificate is a culturally responsive program designed to provide K-8 teachers with a deeper understanding of mathematical content and pedagogy. The courses will emphasize non-traditional, hands-on methods and approaches providing both rigor and pedagogy. Topics addressed include: problem solving; numeration and operations; algebra and functions; geometry and measurement; data analysis; statistics and probability; and calculus and trigonometry. ED S608 and ED S614 are offered on Juneau campus during summer session. Remaining courses in the program may be offered by distance. It is expected that those enrolled in the program will complete it in 18–24 months.

Minimum Credit Hours 21

Certificate Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ED S608</td>
<td>Mathematical Problem Solving: An Overview for K-8 Teachers</td>
</tr>
<tr>
<td>ED S614</td>
<td>Numeration and Operations: Math Content and Pedagogy for K-8 Teachers</td>
</tr>
<tr>
<td>ED S654</td>
<td>Algebra and Functions: Math Content and Pedagogy for K-8 Teachers</td>
</tr>
<tr>
<td>ED S655</td>
<td>Geometry and Measurement: Math Content and Pedagogy for K-8 Teachers</td>
</tr>
<tr>
<td>ED S656</td>
<td>Data Analysis, Statistics and Probability: Math Content and Pedagogy</td>
</tr>
<tr>
<td>ED S657</td>
<td>Concepts of Calculus and Trigonometry: Math Content and Pedagogy</td>
</tr>
<tr>
<td>ED S698</td>
<td>Master’s Research Project or Portfolio</td>
</tr>
</tbody>
</table>

Exit Requirements
1. Professional portfolio that provides evidence that the candidate meets all program goals/outcomes
2. GPA of 3.0
3. Satisfactory completion of all courses

Special Education Certificate

Teaching Graduate Certificate
Juneau, Distance Delivery

The Graduate Certificate program in Special Education prepares teachers to develop and implement culturally responsive special education services for students with disabilities. The program focuses on the unique needs of: (a) children and youth with disabilities; (b) Alaska’s diverse Native and non-Native communities; and (c) Alaska’s remote and rural communities.

Candidates can complete the Graduate Certificate program in Special Education in 12 months. Candidates who complete the Graduate Certificate program in Special Education can receive an endorsement in special
education from the Alaska Department of Education and Early Development.

The Graduate Certificate in Special Education program is designed to accommodate practicing teachers, paraprofessionals, and other school-based professionals. Courses are, therefore, offered in the afternoons and evenings and in the summer. All courses are delivered via teleconference and augmented with online resources. This distance-delivered format allows candidates who live and work in Alaska’s remote and rural communities to remain in their communities while completing their graduate studies.

**MINIMUM CREDIT HOURS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDSE S605</td>
<td>Early Childhood Special Education</td>
<td>3</td>
</tr>
<tr>
<td>EDSE S610</td>
<td>Assessment of Students with Disabilities</td>
<td>3</td>
</tr>
<tr>
<td>EDSE S612</td>
<td>Curriculum &amp; Strategies I: Low Incidence</td>
<td>3</td>
</tr>
<tr>
<td>EDSE S622</td>
<td>Curriculum &amp; Strategies II: High Incidence</td>
<td>3</td>
</tr>
<tr>
<td>EDSE S677</td>
<td>Teaching Reading to Struggling Learners</td>
<td>3</td>
</tr>
<tr>
<td>EDSE S682</td>
<td>Inclusive Education for Students with Disabilities</td>
<td>3</td>
</tr>
<tr>
<td>EDSE S685</td>
<td>Transition Considerations for Secondary Students with Disabilities</td>
<td>3</td>
</tr>
<tr>
<td>EDSE S694</td>
<td>Special Education Practicum</td>
<td>3</td>
</tr>
<tr>
<td>EDSE S695</td>
<td>Special Education Portfolio</td>
<td>3</td>
</tr>
</tbody>
</table>

**Exit Requirements**

1. Satisfactory completion of required coursework with a minimum GPA of 3.0 in all special education courses
2. An approved Special Education Professional Development Portfolio

**Contact:** Dr. Thomas Duke  
(907) 796-6029  
thomas.duke@uas.alaska.edu

**Secondary Education Certificate**

**Bachelor of Arts**  
**Bachelor of Science**

Students wishing to receive teacher certification in middle grades and secondary education, must first complete a B.A. or B.S. degree in their content area. This requires particular course choices required for teaching in different content areas so early advising is essential. Upon completion of the Bachelor’s degree, the student is eligible to apply for the 12 month Master of Arts in Teaching program. Contact Dr. David Marvel (907) 796-6079 in the Center for Teacher Education for advising information.
Human Service Program, University of Alaska Fairbanks

Students in the Human Services (HSV) program receive skills-based training based on a foundation of theory. After completing foundation courses, students select an area of concentration (addictions counseling, mental health and developmental disabilities, residential care, supervision and management in human services, or workforce development). They learn interviewing and assessment, case management, crisis intervention, group counseling and specific skills needed within their concentration area.

The program prepares students for entry-level positions in human services agencies. Persons with a strong desire to help others, a sincere respect for mankind and a commitment to their own personal growth may find this field rewarding. They must be emotionally stable, flexible and interested in working with people of diverse social, cultural and economic backgrounds. Recovery from life traumas and addictions can be a positive attribute if the student has successfully worked through specific issues and is willing to continue personal growth.

Students completing a concentration will receive a credential from the human service program. Those who complete an addictions concentration are eligible for certification as substance abuse counselor technicians through the Alaska Commission for chemical dependency professionals certification board. A credential in family empowerment is also offered to students who complete specific classes.

Interested students should contact UAS-Sitka to learn more about this distance education option. Students should contact the College of Rural Alaska at (907) 455-2842, and see: www.uaf.edu/catalog/current/programs/human_services.html.

Health Science Careers: Nursing, Allied Health

Nursing

The University of Alaska Southeast (UAS) has partnered with the University of Alaska Anchorage (UAA) to bring nursing education to all three campuses. Students interested in pursuing careers in nursing are able to take a variety of prerequisite and co-requisites needed for successful application to the UAA nursing program. Interested students should review course information in the UAS “Certificate in Pre-Nursing Qualifications”. Further information about these options can be found at the UAS Health Science web page at: www.uas.alaska.edu/healthscience.

If you are interested in pursuing a degree in nursing please contact a Health Sciences advisor for detailed information.

The nursing degrees available to students wishing to remain in Southeast Alaska while studying are the A.A.S. in Nursing and a bridge program from the A.A.S. to the B.S.N. degree. The didactic parts of these UAA outreach nursing programs are delivered via distance modalities. The clinical rotations are for the most part completed in local health care facilities. Students can expect to spend approximately 6 weeks in Anchorage for specialty rotations.

The University of Alaska has expanded its effort to recruit Alaska Natives into nursing education. This UA effort, known as the RRANN (Recruitment and Retention of Alaskan Native Nurses) program, is funded by a grant from the US Department of Health and Human Services, Division of Nursing. The RRANN program is dedicated to encouraging personal growth within an academic setting that recognizes individual strengths and cultural diversity. This program is being offered at all UAS locations. Students are encouraged to contact a Health Sciences advisor for specific information about the UAS pre-nursing program, the UAA Nursing programs and the UA RRANN program. Information can also be obtained from www.uas.alaska.edu/healthscience.

Radiologic Technology

The University of Alaska Southeast (UAS) has partnered with the University of Alaska Anchorage (UAA) Medical Imaging Department to bring radiologic technology (Rad Tech) education to Southeast Alaska. Students interested in pursuing careers in radiologic technology are able to take a variety of courses from UAS required for preparation and admission to, and completion of, the AAS in Rad Tech degree. Interested students are urged to carefully review information about the UAS “Certificate
in Pre-Radiologic Technology Qualifications” (CPRTQ). Further information about these options can be found at the UAS Health Science web page at: www.uas.alaska.edu/healthscience.

Interested students should also directly contact the UAA Medical Imaging program at 907-786-6940.

Other Options in Allied Health

There are other options in healthcare preparation in addition to the Nursing and Rad Tech opportunities described above. Students who are interested in a general health sciences background should review the UAS “A.A.S. in Health Sciences”, a degree that also contains all required courses found in both the CPNQ and CPRTQ certificates. The UAS core of health science and related courses may meet the needs of students interested in pre-medicine, health information management (HIM), or a number of other programs in the allied health field that are offered at the University of Alaska and other institutions of higher education. Students should seek advisement at the earliest possible opportunity if career goals include nursing, medicine, or related areas of allied health. Contact the UAS Health Sciences program for more information or go to the UAS Health Science web page at www.uas.alaska.edu/healthscience.

Internships

Academic internships are experience-based courses that place a student in an organization, public or private, under the supervision a qualified professional in the agency and a UAS faculty member. In some cases, the internships may carry a salary as well as credits. Internships that generate credit require satisfactory completion of a minimum of four hours of work per week for each credit (0+0+4). To apply for an internship, a student must be admitted to a University program, and must also demonstrate sufficient educational preparation for the internship before applying. Interested students should consult with their advisor before applying. Internship credit may be applied toward undergraduate programs as follows: Six (6) credits in a certificate program, nine (9) credits in an associate degree, and twelve (12) credits in a bachelor’s degree program. Contact Departmental faculty and/or Career Services at 796-6368 for internship information.

Phi Theta Kappa, Ketchikan Campus

The Ketchikan campus sponsors a chapter of Phi Theta Kappa international honorary society for students in two-year colleges. This is one of two chapters in Alaska, and provides opportunities for academic growth as well as fellowship, transfer, and scholarship support.

Rural Development, University of Alaska Fairbanks

The rural development program is designed for those committed to the empowerment of Alaska Native and other rural communities. This interdisciplinary degree provides a broad understanding of development processes in Alaska and the global community. It also provides specific tools essential for rural leadership, including grant proposal writing, business planning, resources co-management, and project management and evaluation.

Students work with a faculty advisor to develop a concentration in one of six areas: Community Organization and Service, Community Research and Cultural Documentation, Land/Renewable Resources, Rural Health and Human Services Management, Small Business Management, Tribal and Local Government Administration.

Rural development is available to students away from the Fairbanks campus through the applied field-based program. Special admission requirements apply. Contact the Sitka campus for further information.