CHAPTER 10

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THE CURRICULUM
The University of Alaska Anchorage provides curricula that offer its students the opportunity to acquire the intellectual skills, habits of minds, and ethical sensibilities necessary to develop into individuals who make informed judgments and interpretations about their community and the broader world, who take full responsibility for their beliefs and actions, who recognize the connection between knowing and acting, and who commit themselves to lifelong learning. The UAA curricula emphasizes that while the acquisition of knowledge is an end in itself, each UAA graduate must enter the world beyond the University fully equipped to live resiliently in a changing world and be willing to apply theories and methodologies to examine and resolve the problems of their own communities, and those of an increasingly diverse and interdependent world.

The University does not prescribe specific courses for all students. It is the responsibility of each student to determine an appropriate program of courses within the framework of their academic program in consultation with an academic advisor. (See Chapter 6, "Advising and Academic Support," for further information.) The requirements for each degree include completion of a minimum number of courses, resident credits, fulfillment of the General University Requirements and the General Education Requirements, and completion of program requirements.

ACADEMIC PROGRAMS
CERTIFICATES
Undergraduate certificates are programs of 30 credits or more that offer focused instruction in a concentrated area. They are particularly appropriate in a scientific or technical area such as health care, computer systems, transportation or industrial technology. Certificates often provide the knowledge and skills needed for entry-level positions in specific employment sectors.

NON-TRANSCRIBED CERTIFICATES
A Non-Transcribed Certificate documents that an individual has completed a program of formal instruction that may satisfy the training requirement(s) in a code or license regulated field, while not contributing towards either the associate or the baccalaureate degree equivalency.

ASSOCIATE DEGREES
Associate degrees are programs of 60 credits or more that combine focused coursework in a major field with broad studies in the general education areas of written communication, oral communication, humanities, mathematics, natural sciences, and social sciences.

An Associate of Arts degree provides a broad-based program of studies that may be used to satisfy a student’s educational need, or may be used as a basis for transfer into a selected baccalaureate degree field.

Associate of Applied Science degrees provide focused curriculum that prepares students for a position in a particular field of employment, or for a particular type of endeavor. Students in these degree programs build knowledge and skills needed to carry out specific tasks while they develop abilities in the essential elements of communications, computation, and human relations.

BACCALAUREATE DEGREES
Baccalaureate, or Bachelor degrees, are organized programs of study that consist of a minimum of 120 credits. In addition to providing extensive preparation in a specific knowledge area, the content and activities found in the baccalaureate degree promote in students the abilities to reason, research, and analyze, and to form, support, and communicate ideas and opinions.

MINORS
A minor is a component of a baccalaureate degree. A minor may only be issued simultaneously with a baccalaureate degree. A minor from UAA will consist of a minimum of 18 credits, at least six (6) of which must be upper-division. Students must earn at least three (3) credits in residence in each minor field. They must also earn a UAA cumulative GPA of at least 2.00 (C) in the minor. Students must follow minor requirements from the same catalog used for the baccalaureate program. Refer to each discipline for specific requirements. Students must declare minors no later than the deadline to submit an Application for Graduation.

REGIONAL STUDIES
Regional studies programs offer students opportunities to develop the academic insight, knowledge, and technical skills needed to deal effectively with the far-reaching challenges of contemporary global society. At UAA, regional studies are informed by national developments, international contexts and comparative studies, and their aim is to prepare students to become educated world citizens by providing courses which draw upon the insights of many academic disciplines and by recognizing the cultural diversity that exists within the North Pacific region.

GENERAL UNIVERSITY REQUIREMENTS FOR UNDERGRADUATE CERTIFICATES AND ASSOCIATE DEGREE PROGRAMS
General University Requirements have been established for all certificate and degree programs at UAA. Students must complete them in addition to specific certificate and major requirements stated in the program section of this catalog.
GENERAL UNIVERSITY REQUIREMENTS FOR CERTIFICATES

In addition to specific certificate requirements stated in the program section of this catalog, the following requirements must be met in order to obtain a certificate:

1. When completing the last half of a certificate program, students must earn at least 50 percent of the credits in residence. For example, in a 30-credit certificate program, at least 15 must be resident credits. Additional residency credit requirements, to meet program accreditation standards, may be established.

2. Students must earn a cumulative GPA of at least 2.00 (C) at UAA. Some certificate programs require higher GPAs.

3. Students must earn a minimum of 30 credits for an official transcripted certificate.

4. Students may elect to graduate under the requirements of the catalog in effect at the time of formal acceptance to a certificate program or the catalog in effect at the time of graduation.

5. If the requirements for a certificate as specified in the entry-level catalog are not met within five (5) years of formal acceptance into the program, admission expires and the student must reapply for admission and meet the admission and graduation requirements in effect at the time of formal acceptance.

6. Students may earn more than one (1) certificate by completing all requirements for each additional program.

GENERAL UNIVERSITY REQUIREMENTS FOR ASSOCIATE DEGREES

The Associate of Arts degree (AA) is intended to provide general education. Therefore, it includes no major specialty, and students may earn only one AA degree. The Associate of Applied Science (AAS) degree is intended to provide specialized education. Therefore, it includes a major specialty, and students may earn more than one AAS degree. The following requirements must be met for associate degrees:

1. Students must earn a minimum of 60 credits for either an AA or an AAS degree.

2. Students must complete at least 15 credits in residence. Additional residency credit requirements, to meet program accreditation standards, may be established.

3. Students must earn a cumulative GPA of at least 2.00 (C) at UAA. They must also earn a cumulative GPA of at least 2.00 (C) in all courses required for each major. Some associate degree programs may require higher GPAs.

4. Students may elect to graduate under the requirements of the catalog in effect at the time of formal acceptance to an associate degree program or the catalog in effect at the time of graduation.

5. If the requirements for an associate degree as specified in the entry-level catalog are not met within five years of formal acceptance into the program, admission expires and the student must reapply for admission and meet the admission and graduation requirements in effect at the time of formal acceptance.

6. For an AA degree, students must complete a minimum of 60 credits at the 100-level or above, including at least 20 credits at the 200-level or above.

7. All courses for an AAS degree must be at the 100-level or above.

8. No more than 15 military credits can be applied to an associate degree.

CONCURRENT ASSOCIATE PROGRAMS

DOUBLE MAJORS

Associate of Applied Science degree-seeking students may apply to graduate (during the same semester) with two majors, providing the degree program is the same for each major. For example, a student may select two areas from the approved majors within the Associate of Applied Science degree program (such as Welding and Automotive Technology).

Students must apply and be accepted into each major program. Students may request a double major at the time of initial admission to UAA or add a major at a later date through the Change of Major degree process. Forms are available from Enrollment Services.

Students must satisfy the General University Requirements, the General Education Requirements, and both sets of major requirements.

Students must satisfy the catalog requirements in effect at the time of acceptance into the major(s) or the catalog requirements in effect at the time of graduation.

A double major is not applicable to the Associate of Arts Degree.

DOUBLE DEGREES

Associate degree-seeking students may graduate (during the same semester) with two degrees provided they have applied to and been accepted in both degree programs. An Associate of Applied Science and Associate of Arts is an example of a double degree.

Students must submit a separate application for admission for each degree they expect to receive. Admission forms are available from Enrollment Services.

Associate degree-seeking students must complete the General University Requirements, the General Education Requirements for their primary program, the requirements for both major programs, and at least 12 resident credits beyond the total number of credits required for the primary degree.

Students must satisfy the catalog requirements in effect at the time of acceptance into the degree program(s) or the catalog requirements in effect at the time of graduation.

SECOND ASSOCIATE DEGREE

The Associate of Arts degree is intended to provide students with the education necessary to undertake baccalaureate degree work. Due to its general intent, only one Associate of Arts degree may be earned per student.
UAA STUDENTS

Students who have received an Associate of Applied Science degree from UAA and who want to obtain another Associate of Applied Science degree must:

1. Meet admission requirements.
2. Complete at least 12 resident credits beyond the previous associate degree(s).
3. Complete the Major Program Requirements for the second degree.
4. Maintain a cumulative GPA of at least 2.00 (C) at UAA in order to graduate. Some programs may require a higher GPA in the major.

TRANSFER STUDENTS

Students who have received a baccalaureate degree from another regionally accredited college or university and who want to obtain an associate degree from UAA must:

1. Meet admission requirements.
2. Complete the General University Requirements but not the General Education Requirements.
3. Complete the Major Program Requirements.

ASSOCIATE OF APPLIED SCIENCE DEGREE REQUIREMENTS

To receive an Associate of Applied Science Degree, students must satisfy:

1. General University Requirements for Associate Degrees;
2. Associate of Applied Science Degree Requirements (see below).

Advising note for AAS students who plan to pursue a 4-year degree: AAS students who intend to pursue a baccalaureate degree should consult a faculty or academic advisor for appropriate course selections.

All courses must be at the 100-level or above.

1. Oral Communication Skills
   COMM A111 Fundamentals of Oral Communication
   COMM A235 Small Group Communication
   COMM A237 Interpersonal Communication
   COMM A241 Public Speaking

2. Written Communication Skills
   ENGL A111 Methods of Written Communication
   ENGL A211 Academic Writing About Literature
   ENGL A212 Technical Writing
   ENGL A213 Writing in the Social and Natural Sciences
   ENGL A214 Persuasive Writing

3. General Requirements
   Choose Humanities*, Math, Natural Sciences, or Social Sciences courses from the General Requirement Course Classification List for Associate of Applied Science Degrees (see below.)

*Any English course used to satisfy the Humanities general requirement must be different from the Written Communications Skills requirement and have a course number higher than ENGL A111.
Social Sciences

Anthropology
Business Administration (BA A151 only)
Counseling
Economics
Environmental Studies (ENVI A202 only)
Geography (except GEOG A205 and A205L)
Guidance
Health Sciences (HS A220 only)
History*
Human Services (HUMS A106 only)
International Studies
Journalism and Public Communications (JPC A101 only)
Justice (JUST A110 and A330 only)
Liberal Studies Social Sciences
Paralegal Studies (PARL A101 only)
Political Science
Psychology
Social Work (SWK A106 and A243)
Sociology
Women’s Studies*

*History and Women’s Studies may be used for either Humanities or Social Sciences credit, but not for both.

Baccalaureate Degrees

The Academic Major

Baccalaureate degree-seeking students select a major discipline which reflects their interests, academic talents and professional goals, and in consultation with academic advisors declare themselves to be majors in the selected discipline. Students select courses within the declared discipline, which in combination with other successfully completed University requirements, lead to a UAA baccalaureate degree. Students may declare a major, a double major, and/or an interdisciplinary major. The requirements for completing specific majors are presented in detail in the section describing the programs offered by each department.

Interdisciplinary majors are described below. Students may declare their majors at any time during their academic careers but should do so before registering for courses for the junior year or applying to participate in off-campus study programs. Some departments have courses that must be passed, or standards that must be met before a student will be accepted as a major. Students are encouraged to think well in advance about possible majors and to speak with faculty about their educational interests.

Students may change their majors after consultation with the relevant departments. Declaration of major is a formal process which requires the appropriate forms and signatures. Students must follow established UAA procedures for declaring a major and for changing a major or degree.

Baccalaureate Degree Requirements

To receive a baccalaureate degree from UAA, students must satisfy:

- General University Requirements;
- General Education Requirements;
- School/College Requirements, if applicable; and
- Major Program Requirements.

For General Education Requirements, refer to the “General Education Requirements (GER) for Baccalaureate Degrees” section of this chapter. For School/College and Major Program Requirements, refer to the appropriate school or college section of this catalog.

General University Requirements for All Baccalaureate Degrees

1. Students must earn at least 120 credits at the 100 level and above. Some degree programs require completion of additional credits.
2. Students must earn at least 42 upper-division credits, including 24 upper-division credits in residence. Some degree programs require completion of additional upper division credits.
3. Students must earn at least 30 credits in residence. In addition, transfer students must earn in residence at least 12 credits in each major field and, where applicable, at least three (3) credits in each minor field. Additional residency credit requirements, to meet program accreditation standards, may be established.
4. Students must earn a cumulative GPA of at least 2.00 (C) at UAA. They must also earn a cumulative GPA of at least 2.00 (C) in all courses required for each major and each minor. Some degree programs may require higher GPAs.
5. Students may elect to graduate under the requirements of the catalog in effect at the time of formal acceptance to a baccalaureate degree program or the catalog in effect at the time of graduation.
6. If the requirements for a baccalaureate degree, as specified in the entry-level catalog, are not met within seven (7) years of formal acceptance into the program, admission expires and the student must reapply for admission and meet the admission and graduation requirements in effect at the time of formal acceptance.
7. Students must follow established UAA procedures for declaring a major and for changing a major or degree. Students who change their major or degree must satisfy the catalog requirements for the new major or degree in effect at the time of the change.
8. No more than 30 military credits can be applied to a baccalaureate degree.
GENERAL EDUCATION REQUIREMENTS (GER) FOR BACCALAUREATE DEGREES

PREAMBLE
The GER provides students with a common educational experience in order to (1) provide a foundation for further study and (2) broaden the educational experience of every degree-seeking student. It is designed to promote an elevation of the student’s level in basic college-level skills (Tier 1), a breadth of exposure to traditional academic disciplines (Tier 2), and experience in applying his/her education in understanding and responding to the evolving state of knowledge and the world in the 21st Century (Tier 3).

Tier 1: Basic College-Level Skills 12 credits
The UAA GER begins with Basic College-Level Skills enhancement in written communication, oral communication, and quantitative skills:

- Courses in Written Communication and Oral Communication develop the critical reading, thinking, and communication skills (writing, speaking, and listening) necessary for personal and professional success.
- Courses in Quantitative Skills foster the analytical and mathematical abilities necessary for success in undergraduate study and professional life.

Baccalaureate students are required to complete the 12 credits of Basic College-Level Skills (Oral, Written, and Quantitative) before completing 60 total degree applicable credits. Students may select approved Basic College-Level Skills, which may also fulfill requirements in their intended major. Faculty in English, Communication, and Mathematics provide placement criteria (which may require the completion of preparatory coursework).

Tier 2: Disciplinary Areas 22 credits
The GER continues with courses in four required disciplinary areas categorized by course content and academic discipline that are designed to guarantee a breadth of academic experience. These are Fine Arts, Humanities, Natural Science, and Social Science:

- Courses in the Fine Arts examine the historical, aesthetic, critical, and creative aspects of art.
- Courses in the Humanities consider the cultural, historical, literary, aesthetic, ethical, and spiritual traditions shaping the contemporary world.
- Courses in Natural Science present theoretical and descriptive approaches to understanding the natural and physical worlds. Lab courses in the Natural Sciences emphasize gathering data and analyzing hypotheses according to the scientific method.
- Courses in the Social Sciences explore insights about individuals, groups, and cultures derived from empirical methodologies.

Note: The 37-credit General Education Requirement, including the 3-credit Integrative Capstone, is required for graduation beginning in the 2008-2009 academic year for baccalaureate students entering under this 2005-2006 UAA Catalog or later.

Tier 3: Integrative Capstone 3 credits
For Baccalaureate students, the GER concludes with an Integrative Capstone, which demonstrates student integration of GER disciplines and skills. Tier 3 (Integrative Capstone) courses may be taken only after the student has completed all Tier 1 (Basic College-Level Skills) requirements.

GER Advising Note: All students should consult a faculty or academic advisor for appropriate course selections.

- Baccalaureate students are required to complete 12 credits of Basic College-Level Skills (Oral, Written, and Quantitative) before completing 60 total degree applicable credits.
- The 37-credit General Education Requirement, including the 3-credit Integrative Capstone, is required for graduation beginning in the 2008-2009 academic year for baccalaureate students entering under this 2005-2006 UAA Catalog or later.
- Each of the eight General Education Classifications has a list of approved courses (see the General Education Classification List). Only courses from the GER Classification List may be used to satisfy a distribution area requirement.
- Courses used to satisfy distribution area requirements in General Education may also be used to satisfy School/College requirements and/or Degree/Program requirements, but no course may be counted in more than one General Education category.
- Courses ending with numbers _93 or _94 cannot satisfy a GER, and UAA courses not on the approved GER Classification List cannot be petitioned to meet a GER.

GER STUDENT OUTCOMES
After completing the General Education Requirement, UAA students shall be able to:

1. Communicate effectively in a variety of contexts and formats.
2. Reason mathematically, and analyze quantitative and qualitative data competently to reach sound conclusions.
3. Relate knowledge to the historical context in which it developed and the human problems it addresses.
4. Interpret different systems of aesthetic representation and understand their historical and cultural contexts.
5. Investigate the complexity of human institutions and behavior to better understand interpersonal, group, and cultural dynamics.
6. Identify ways in which science has advanced the understanding of important natural processes.
7. Locate and use relevant information to make appropriate personal and professional decisions.
8. Adopt critical perspectives for understanding the forces of globalization and diversity; and
9. Integrate knowledge and employ skills gained to synthesize creative thinking, critical judgment, and personal experience in a meaningful and coherent manner.
PETITIONS FOR GENERAL EDUCATION AND/OR UNIVERSITY REQUIREMENTS

Petitions pertaining to general education requirements and/or general university requirements must be processed through the Office of Academic Affairs, with final authority to deny or approve resting with the Provost. After the petition has received final approval or denial, a copy reflecting that decision will be returned to the student and advisor. Changes in course level, grading, or number of credits awarded are not petitionable. UAA courses not on the approved baccalaureate General Education Requirements (GER) list cannot be petitioned to meet a GER. For more information, see Academic Petition section in chapter 7 of this catalog.

GENERAL EDUCATION CLASSIFICATION LIST

Courses listed here as satisfying a General Education Requirement are also identified in the course description area of the catalog.

TIER 1: BASIC COLLEGE-LEVEL SKILLS

1. Oral Communication Skills

Courses that fulfill this requirement are those which emphasize the acquisition of English language skills in orally communicating ideas in an organized fashion through instruction accompanied by practice.

Courses completed at UAA must be selected from the following:

- COMM A111 Fundamentals of Oral Communication
- COMM A235 Small Group Communication
- COMM A237 Interpersonal Communication
- COMM A241 Public Speaking

2. Quantitative Skills

Courses that fulfill this requirement are those which emphasize the development and application of quantitative problem-solving skills as well as skills in the manipulation and/or evaluation of quantitative data.

Courses completed at UAA must be selected from the following:

- AS A252 Elementary Statistics
- AS A253 Applied Statistics for the Sciences
- AS A307 Probability
- MATH A107 College Algebra
- MATH A108 Trigonometry
- MATH A109 Pre calculus
- MATH A172 Applied Finite Mathematics
- MATH A200 Calculus I
- MATH A201 Calculus II
- MATH A272 Applied Calculus

3. Written Communication Skills

Courses that fulfill this requirement are those which emphasize the acquisition of English language skills in organizing and communicating ideas and information through expository writing.

Courses completed at UAA must be selected from the following:

- ENGL A111 Methods of Written Communication
- ENGL A211 Academic Writing About Literature
- ENGL A212 Technical Writing
- ENGL A213 Writing in the Social & Natural Sciences
- ENGL A214 Persuasive Writing
- ENGL A311 Advanced Composition
- ENGL A312 Advanced Technical Writing
- ENGL A414 Research Writing

Classification | Credits
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3. Written Communication Skills | 6

**Note: Music Majors must select courses outside the major.

TIER 2: DISCIPLINARY AREAS

4. Fine Arts**

Courses that fulfill this requirement are those that provide the student with an introduction to the fine arts (visual arts and performing arts) as academic disciplines as opposed to those that emphasize acquisition of skills.

**Note: Music Majors must select courses outside the major.

Courses completed at UAA must be selected from the following:

- ART A160 Art Appreciation
- ART A261 History of World Art I
- ART A262 History of World Art II
- ART A367 History of Photography
- DNCE A170 Dance Appreciation
- JPC A367 History of Photography
- MUS A121 Music Appreciation*
- MUS A221 History of Music I*
- MUS A222 History of Music II*
- THR A111 Introduction to the Theatre
- THR A311 Representative Plays I
- THR A312 Representative Plays II
- THR A411 History of the Theatre I
- THR A412 History of the Theatre II

5. Humanities* (outside the major)

Courses that fulfill this requirement are those which introduce the student to the humanistic fields of language, arts, literature, history and philosophy within the context of their traditions.

*Note: History and Women’s Studies may be applied to either the Humanities or the Social Sciences requirements but not to both. The student may not count one or more history course toward one requirement and an additional history course or courses toward the other.

Courses completed at UAA must be selected from the following:

- AKNS A101 Alaska Native Languages I
- AKNS A102 Alaska Native Languages II
- AKNS A201 Native Perspectives
- ART A261 History of World Art I
- ART A262 History of World Art II
- ART A367 History of Photography
Natural Sciences (must include a laboratory course)

Courses that fulfill this requirement are those that provide the student with broad exposure and include general introduction to the theory, methods, and disciplines of the natural sciences.

Courses completed at UAA must be selected from the following:

- ASTR A103 Introductory Astronomy I
- ASTR A104 Introductory Astronomy II
- BIOL A102 Introductory Biology
- BIOL A103 Introductory Biology Laboratory
- BIOL A111 Human Anatomy and Physiology I
- BIOL A112 Human Anatomy and Physiology II
- BIOL A115 Fundamentals of Biology I
- BIOL A116 Fundamentals of Biology II
- BIOL A178 Fundamentals of Oceanography
- BIOL A179 Fundamentals of Oceanography Lab
- CHEM A103/L Survey of Chemistry
- CHEM A104/L Introduction to Organic Chemistry and Biochemistry
- CHEM A105/L General Chemistry I
- CHEM A106/L General Chemistry II
- ENVI A202 Earth as an Ecosystem: Introduction to Environmental Science
- GEOG A205/L Elements of Physical Geography
- GEOL A111 Physical Geology
- GEOL A221 Historical Geology
- GEOL A115/L Environmental Geology
- GEOL A178 Fundamentals of Oceanography
- GEOL A179 Fundamentals of Oceanography Lab
- LSIS A101 Discoveries in Science
- LSIS A102 Origins: Earth-Solar Systems-Life
- LSIS A201 Life on Earth
- LSIS A202 Concepts and Processes: Natural Sciences
- PHYS A101 Physics for Poets
- PHYS A123/L Basic Physics I
- PHYS A124/L Basic Physics II
- PHYS A211/L General Physics I
- PHYS A212/L General Physics II
### Classification Credits

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<tr>
<th>Classification</th>
<th>Credits</th>
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<td>7. Social Sciences*</td>
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<td>(outside the major; from 2 different disciplines)</td>
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<td>Courses that fulfill this requirement are broad survey courses which provide the student with exposure to the theory, methods, and data of the social sciences. *Note: History and Women's Studies may be applied to either the Humanities or the Social Sciences requirement but not to both. The student may not count one or more history courses toward one requirement and an additional history course or courses toward the other.</td>
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<td>Courses completed at UAA must be selected from the following:</td>
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<td>ANTH A101 Introduction to Anthropology</td>
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<td>ANTH A200 Natives of Alaska</td>
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<td>ANTH A202 Cultural Anthropology</td>
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<td>ANTH A250 The Rise of Civilization</td>
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<td>BA A151 Introduction to Business</td>
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<td>ECON A201 Principles of Macroeconomics</td>
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<td>ECON A202 Principles of Microeconomics</td>
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<td>ENVI A201 Living on Earth: Introduction to Environmental Studies</td>
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<td>GEOG A101 Introduction to Geography</td>
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<td>HIST A101 Western Civilization I</td>
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<td>HIST A102 Western Civilization II</td>
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<td>HIST A121 East Asian Civilization I</td>
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<td>HIST A122 East Asian Civilization II</td>
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<td>HIST A131 History of United States I</td>
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<td>HIST A132 History of United States II</td>
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<td>HIST A341 History of Alaska</td>
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<td>HS A220 Core Concepts in the Health Sciences</td>
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<td>HUMS A106 Introduction to Social Welfare</td>
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<td>INTL A301 Canada: Introductory Survey</td>
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<td>JPC A101 Introduction to Mass Communication</td>
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<td>JUST A110 Introduction to Justice</td>
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<td>JUST A330 Justice and Society</td>
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<td>PARL A101 Introduction to Law</td>
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<td>PS A101 Introduction to American Government</td>
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<td>PS A102 Introduction to Political Science</td>
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<td>PS A311 Comparative Politics</td>
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<td>PS A351 Political Sociology</td>
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<td>PSY A111 General Psychology</td>
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<td>PSY A150 Life Span Development</td>
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<td>SOC A101 Introduction to Sociology</td>
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<td>SOC A201 Social Problems and Solutions</td>
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<td>SOC A202 The Social Organization of Society</td>
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<td>SOC A222 Small and Rural Communities</td>
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<td>SOC A342 Sexual, Marital and Family Lifestyles</td>
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<td>SOC A351 Political Sociology</td>
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<td>SWK A106 Introduction to Social Welfare</td>
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<td>SWK A243 Cultural Diversity and Community Services</td>
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<td>WS A200 Introduction to Women’s Studies</td>
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### TIER 3: INTEGRATIVE CAPSTONE

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<td>8. Integrative Capstone***</td>
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<td>Courses from across the University that fulfill this requirement are those that require the student to demonstrate knowledge integration, using GER skills (Tier 1), across GER disciplines (Tier 2).</td>
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<td>HIST A390A Themes in World History</td>
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<td>HNRS A490 Senior Honors Seminar</td>
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<td>MATH A420 History of Mathematics</td>
<td></td>
</tr>
<tr>
<td>MEDT A302 Clinical Laboratory Education and Management</td>
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</tr>
<tr>
<td>NS A411 Health II: Nursing Therapeutics</td>
<td></td>
</tr>
<tr>
<td>PEP A384 Cultural and Psychological Aspects of Health and Physical Activity</td>
<td></td>
</tr>
<tr>
<td>PSY A370 Biological Psychology</td>
<td></td>
</tr>
<tr>
<td>SWK A431 Social Work Practice IV</td>
<td></td>
</tr>
</tbody>
</table>

**See Class Schedule for additional Integrative Capstone courses.***

**Note: The 37-credit General Education Requirement, including the 3-credit Integrative Capstone, is required for graduation beginning in the 2008-2009 academic year for baccalaureate students entering under this 2005-2006 UAA Catalog or later.**

### CONCURRENT BACHELOR DEGREE PROGRAMS

**DOUBLE MAJORS**

Baccalaureate degree-seeking students may graduate (during the same semester) with two majors, provided they have applied for and been accepted in each degree program and that the degree is the same for each major. For example, a student may select two areas from the approved majors within a Bachelor of Arts degree program (such as History and Justice). Students must apply for and be accepted into each major. Students may declare a double major at the time of initial admission to UAA or add a major at a later date through the Change of Major/Degree process. Forms are available from Enrollment Services. Students must satisfy the General University Requirements, the General Education Requirements for the primary program, both sets of School/College Requirements, if applicable, and Major Program Requirements. Students must satisfy the catalog requirements in effect at the time of acceptance into the major(s) or the catalog requirements in effect at the time of graduation.

### MULTIPLE DEGREES

Baccalaureate degree-seeking students may graduate (during the same semester) with multiple degrees provided they have applied for and been accepted in each degree program. Students must submit a separate application for admission and application for graduation for each degree they expect to complete. Forms are available at Enrollment Services. Students must satisfy the catalog requirements in effect at the time of acceptance into the degree program(s) or the catalog requirements in effect at the time of graduation. Baccalaureate degree-seeking students must complete the General University Requirements, the General Education Requirements, School/College Requirements, if applicable, all Major Program Requirements, and at least 24 resident credits beyond each degree completed (i.e., if the first degree requires a total of 120 credits, the second requires at least 144 total credits, and the third requires at least 168 total credits, etc.).
SECOND BACCALAUREATE DEGREE

UAA STUDENTS

Students who have received a baccalaureate degree from UAA, who return and want to obtain another baccalaureate degree must:

1. Meet admission requirements.
2. Complete at least 24 resident credits beyond the last baccalaureate degree(s) awarded.
3. Complete the School/College Requirements, if applicable, and the Major Program Requirements, including any resident and/or upper-division requirements, for the second degree.
4. Maintain a cumulative GPA of at least 2.00 (C) at UAA in order to graduate. Some programs may require a higher GPA in the major.

TRANSFER STUDENTS

Students who have received a baccalaureate degree from another regionally accredited college or university and who want to obtain a baccalaureate degree from UAA must:

1. Meet admission requirements.
2. Complete the General University Requirements but not the General Education Requirements.
3. Complete all School/College Requirements, if applicable, and the Major Program Requirements.

INTERDISCIPLINARY BACCALAUREATE DEGREES

Upon completing at least 15 UAA credits, a student may develop an interdisciplinary BA or BS degree program. The proposed program must differ significantly from established degree programs and must not be a substitute for a regular degree program. Interdisciplinary degree programs are not transferrable to other University of Alaska campuses.

To receive a baccalaureate degree in Interdisciplinary Studies from UAA, the student must meet General University Requirements, General Education Requirements, and School/College Requirements as applicable. Major Program Requirements are established in the interdisciplinary program plan developed by the student in consultation with an advisory committee.

An interdisciplinary baccalaureate program proceeds as follows:

1. The student develops a proposal specifying the degree (BA or BS), title, and program content, including recommendations for courses to meet General Education Requirements and School/College Requirements as applicable.
2. The student obtains an advisory committee of at least three faculty members from the appropriate academic disciplines. If the interdisciplinary degree program involves more than one school or college, the committee must include a faculty member from each.
3. The student obtains the assistance of one faculty member to chair the advisory committee and serve as the interdisciplinary degree program director.
4. The student presents the proposal for committee review and approval. If the committee supports the proposal, it is forwarded to the appropriate academic Dean(s) or Director(s).
5. The Dean(s) or Directors(s) review(s) the proposal, committee membership, and recommendation for degree program director. If the Dean(s) or Director(s) approves the interdisciplinary degree program and committee structure, the degree program plan is forwarded to Enrollment Services.
6. If changes are necessary in the degree program plan, they must have written approval of the advisory committee and appropriate Dean(s) or Director(s).
7. The student works with the advisory committee and Enrollment Services to insure that all degree requirements are met.
The University Honors Program is designed to provide enhanced educational opportunities for outstanding UAA students, leading to a designation of "University Honors Scholar" upon graduation. The Honors Program is interdisciplinary and university-wide. Honors students may pursue any major and minor they wish at the University, and core Honors courses will satisfy General Education Requirements.

University Honors offers smaller classes with excellent faculty, guided individual research, personalized academic advising and mentoring, special leadership and internship opportunities, community involvement, and enhanced scholarship prospects. Honors courses will approach the course subject matter with more intensity and rigor than is demanded of typical courses. Students will also participate in a range of honors activities together, designed to enhance intellectual and personal opportunities. Intensive advising by program faculty and staff is an important element of the program, and Honors students are required to meet regularly with advisors.

There are two ways to earn University Honors: completion of the Honors Program requirements, and completion of an additional curriculum in democratic institutions and leadership. This intensive curriculum in democratic institutions and leadership is called the "Forty-Ninth State Fellows Program." Focusing on politics, history, and Alaska, it consists of selected courses, weekly tutorials, and extracurricular activities. A limited number of students are admitted to the Honors Program and the Forty-Ninth State Fellows Program each year. Students typically apply prior to their freshman year to begin the program as they start their studies at UAA.

In addition to the University Honors Program, several departments at UAA offer departmental honors options. Students may complete both University and departmental honors requirements with dual designations upon graduation, and in some cases departmental honors courses may be substituted for one or more University Honors Program requirements. In addition, students pursuing only departmental honors may enroll in some University Honors Program courses with permission of the University Honors Program Director, and on a space available basis.

ADMISSION TO THE UNIVERSITY HONORS PROGRAM

1. Admission to the University Honors Program is limited to baccalaureate degree seeking students. Admission is separate from and in addition to general UAA admission requirements.

2. Students must submit a completed University Honors Program application, including supporting documents, to the Program Office (BEB 119). Supporting documents include (1) high school transcripts and SAT or ACT scores for incoming freshmen, (2) university transcripts and GPA for transfer students, (3) an essay on personal goals, and (4) a completed reference form from two previous teachers (either high school or college). Application packets may be obtained from the University Honors Program Office.

3. In general, students applying to the University Honors Program from high school or transferring into the program with previous college-level work must have at least a 3.0 GPA, and show strong evidence of ability to reach and maintain a 3.5 GPA level at UAA within a reasonable time. However, the initial GPA entrance requirement should be interpreted as a general guideline, and not as an absolute criterion; all students who believe that they can succeed and benefit in an honors program are encouraged to apply.

4. Admission to the University Honors Program will be determined by the Honors Program Admission Committee. Admission is based on an overall evaluation of the student’s probability of success in the Program, and not on any single criterion or formula. The Committee may ask the applicant for additional information and/or suggest an interview. Applicants will be ranked, and admitted on a space-available basis. In some cases the Committee may initially grant conditional admission, which will be changed to formal admission if the student demonstrates ability to do honors work.

REQUIREMENTS TO GRADUATE AS A "UNIVERSITY HONORS SCHOLAR"

1. Students must meet all General University Requirements, General Education Requirements, School/College requirements, and major requirements as printed in the UAA catalog. Students enrolled in the University Honors Program who successfully complete the Core Honors Requirements listed in section 2 below may apply three credits toward satisfying the General Education requirement in the humanities and three credits toward satisfying the General Education requirement in the social sciences.

2. Students must complete the following University Honors Program Curriculum requirements with a grade of "C" or higher:

   Core Honors Requirements:
   - HNRS A192 Honors Seminar: Enduring Books 3
   - HNRS A292 Honors Seminar in Social Science 3
   - HNRS A310 Community Service: Theory and Practice 3

   Upper-division Honors Requirements:
   - HNRS A392 Honors Thesis Seminar 1
   - and one of the following options to total 6 credits
     - A. HNRS A490 Senior Honors Seminar (6 credits over two semesters)
     - or
     - B. A course proposed by the student, and approved by the Honors Program Director (3 credits minimum; may be an existing course or independent study)
       - and
       - Senior thesis or project (3 credits minimum; either departmental thesis/project, or HNRS A499 Honors Thesis)
       - or
     - C. An upper-division course listed in the catalog as a specific departmental honors requirement (3 credits minimum)
       - and
       - Senior thesis or project (3 credits minimum; either departmental thesis/project, or HNRS A499 Honors Thesis)
       - or
     - D. Six-credit thesis/project (either departmental thesis/project, or HNRS A499 Honors Thesis).
       - Total University Honors Program credits required (9 core + 7 upper-division): 16

3. Students must have earned a cumulative grade point average of 3.5 or higher, as defined under “Graduation with Honors” in Chapter 7 of this catalog.

4. As part of the advising/mentoring process, Honors students’ progress will be evaluated every semester. Students whose performance indicates potential difficulties in meeting the Honors graduation requirements will be counseled on how to correct these difficulties, but if performance improvements do not result, the student may be removed from the Program.
**Forty-Ninth State Fellows Program**

This option within the University Honors Program offers a limited number of students the opportunity for an intensive, intellectually challenging four-year undergraduate program to develop new Alaskan leaders. Forty-Ninth State Fellows study the roots of liberty in Western civilization, the founding and development of American political institutions, and the challenges of self-government in Alaska, to become knowledgeable about American and Alaskan history, politics, and cultural diversity, and familiar with the application of leadership skills and ideas.

In addition to their common curriculum, Forty-Ninth State Fellows enjoy many activities together, including opportunities for summer internships, membership in civic organizations, lectures and colloquia, weekly tutorials, and special events. Intensive advising by program faculty and staff is an important element of the option, and Fellows are required to meet regularly with advisors.

Forty-Ninth State Fellows may pursue any major they wish at the University. They take selected courses together in economics, history, and political science, as well as the required courses for the University Honors Program. Many of these courses satisfy General Education requirements (GER) at UAA and/or requirements for those pursuing degrees in the College of Arts and Sciences. Students admitted to study as Forty-Ninth State Fellows receive the designation "Forty-Ninth State University Honors Scholar" on their transcripts upon successful completion of the option requirements.

**Admission To The Forty-Ninth State Fellows Program**

1. Admission to the Forty-Ninth State Fellows Program is limited each year to a small group of baccalaureate degree seeking students. At the time of application, students are considered for admission to both the University Honors Program and the Forty-Ninth State Fellows Program. Students should meet the general criteria for admission to University Honors (Admission to University Honors Program #3).

2. Students must submit a completed Forty-Ninth State Fellows Program application, including supporting documents, to the University Honors Program Office (BEB 119). Supporting documents include (1) high school transcripts and SAT or ACT scores for incoming freshmen, (2) high school and university transcripts and GPA for transfer students, (3) a letter of application explaining their background and interests, and why they want to be Forty-Ninth State Fellows and members of the University Honors Program, (4) a short paper or essay (750-1000 words) addressing a contemporary social, political, or economic problem in Alaska, and (5) three letters of reference commenting on their academic ability and promise, one of which must be from an unrelated adult outside of high school who can speak to their skills and potential. Application forms may be obtained from the University Honors Program office or website.

3. Admission to the Forty-Ninth State Fellows Program will be determined by the Forty-Ninth State Admission Committee. The Committee may ask the applicant for additional information and/or request an interview. Applicants will be ranked and admitted on a space-available basis.

**Requirements To Graduate As A "Forty-Ninth State University Honors Scholar"**

1. Students must meet all General University Requirements, General Education Requirements, School/College requirements, and major requirements as printed in the UAA catalog.

2. Students must complete all requirements to graduate in the University Honors Program as a "University Honors Scholar," including GPA requirements and completion of an Honors Senior Thesis.

3. Students must complete the following Forty-Ninth State Fellows curriculum requirements with a grade of "C" or higher:

**First-year Forty-Ninth State Fellows Program Requirements:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST A101</td>
<td>Western Civilization I*</td>
<td>3</td>
</tr>
<tr>
<td>HIST A102</td>
<td>Western Civilization II*</td>
<td>3</td>
</tr>
<tr>
<td>HNRS A191</td>
<td>Freshman Honors Tutorial (fall)</td>
<td>1</td>
</tr>
<tr>
<td>HNRS A191</td>
<td>Freshman Honors Tutorial (spring)</td>
<td>1</td>
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</table>

**Second-year Forty-Ninth State Fellows Program Requirements:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON A201</td>
<td>Principles of Macroeconomics*</td>
<td>3</td>
</tr>
<tr>
<td>HIST A131</td>
<td>History of United States I*</td>
<td>3</td>
</tr>
<tr>
<td>HIST A132</td>
<td>History of United States II*</td>
<td>3</td>
</tr>
<tr>
<td>HNRS A291</td>
<td>Sophomore Honors Tutorial (fall)</td>
<td>1</td>
</tr>
<tr>
<td>HNRS A291</td>
<td>Sophomore Honors Tutorial (spring)</td>
<td>1</td>
</tr>
<tr>
<td>PS A330</td>
<td>The American Political Tradition</td>
<td>3</td>
</tr>
</tbody>
</table>

**Third-year Forty-Ninth State Fellows Program Requirements:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST A341</td>
<td>History of Alaska*</td>
<td>3</td>
</tr>
<tr>
<td>HNRS A391</td>
<td>Junior Honors Tutorial</td>
<td>1</td>
</tr>
<tr>
<td>PS A332</td>
<td>History of Political Philosophy I: Classical*</td>
<td>3</td>
</tr>
<tr>
<td>PS A333</td>
<td>History of Political Philosophy II: Modern*</td>
<td>3</td>
</tr>
</tbody>
</table>

**Fourth-year Forty-Ninth State Fellows Program Requirements:**

<table>
<thead>
<tr>
<th>Course</th>
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<th>Units</th>
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</thead>
<tbody>
<tr>
<td>PS A345</td>
<td>Alaska Government and Politics</td>
<td>3</td>
</tr>
</tbody>
</table>

* Indicates courses that can satisfy GERs and/or CAS requirements.

Forty-Ninth State Fellows ordinarily take all of the Forty-Ninth State requirements together as a cohort. Since Honors tutorials are associated with designated course sections, and other courses required by the Forty-Ninth State Fellows Program have designated sections for Fellows, Fellows must secure advice and permission from the Forty-Ninth State advisors before registering for classes each term. In some cases, classes that meet General Education requirements may be designated for Forty-Ninth State Fellows or for other degree requirements, the program may allow Fellows to substitute sections or to take courses outside the usual sequence.

4. As part of the advising and mentoring process, Forty-Ninth State Fellows’ progress will be evaluated every semester. Fellows whose performance indicates potential difficulties in meeting the requirements for the Forty-Ninth State Fellows Program or for the University Honors Program will be counseled on how to correct these difficulties, but if performance improvements do not result, Fellows may be removed from the program.

**FACULTY**

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*Forty-Ninth State Fellows Program faculty
The College of Arts and Sciences is dedicated to the principle that an enlightened understanding of the world is fostered by study of an individual's physical environment, one's cultural values and processes, one's creative expressions, and one's systems of thought and discovery. In fulfillment of this educational commitment, the fields of study offered by the College serve two ends: they are intellectually valuable in themselves and they are an essential complement to other fields of knowledge. The faculty are highly trained and energetic professionals who are here to impart the knowledge and skills of their academic disciplines both to majors within the College and to students in the various professional schools and the community. The formal means of communicating this knowledge and these skills are the courses and degree programs of the College.

The College welcomes applications from students who have just graduated from high school as well as from those who are continuing their higher education, whether to complete an associate or a baccalaureate degree or to undertake graduate studies. Students who wish to begin work on their degrees at another university or at a junior or community college and intend to transfer credits to the University of Alaska Anchorage should plan their course work in accordance with the General University Requirements and the requirements of the particular program in which they are interested in earning a degree.

Prospective transfer students, particularly those who have not decided upon a major, should pay special attention to the requirements of programs within the College of Arts and Sciences regarding the applicability of credits toward degrees.

**High School Preparation**

The following high school courses are recommended but not necessarily required in preparation for admission to the various programs within the College of Arts and Sciences:

**Arts**

- One to two years with emphasis in basic and fundamental courses in the arts with more advanced courses dependent upon students' particular interest.

**Computer Science**

- One to two years. Basic knowledge of computer science recommended for all college-bound students.

**English**

- Four years with emphasis on spelling, writing, grammar, and research skills such as preparation of bibliographies.

**Language**

- One to two years. Suggested languages: German, Russian, Latin, Japanese, French, Spanish, Chinese, or Native Languages.

**Mathematics**

- **BA candidates**: Three years with emphasis on Algebra I and II, Trigonometry, Geometry, Analysis.
- **BS candidates**: Four years with emphasis on Algebra I and II, Trigonometry, Geometry, Analysis.

**Science**

- **BA candidates**: Two to three years with emphasis in Biology, Chemistry, Physics, Geology, and/or Earth Science.
- **BS candidates**: Three to four years with emphasis in Biology, Chemistry, Physics, Geology, and/or Earth Science.

**Social Sciences**

- Two years with emphasis in World History, U.S. History, Comparative Political Theory, Current Events, Geography, Cultural Anthropology, and/or Prehistoric Archaeology.

**College of Arts and Sciences Requirements**

To earn a Bachelor of Arts; Bachelor of Science; or Bachelor of Music, Performance, students must complete the CAS requirements shown below, in addition to the General Education Requirements, the General University Requirements, and major program requirements. Students completing an interdisciplinary studies degree in which all academic disciplines represented in their major concentration are within the College of Arts and Sciences must also meet the CAS BA or BS requirements. Students should examine the program descriptions for the major program and consult with an advisor before making final course selections. Some courses may be used to satisfy more than one requirement in a degree program.

**Electives**

No more than 6 credits in lower-division physical education courses (EDPE) and/or Alaska Outdoor and Experiential Education courses (AOEE) may be applied toward a BA or BS degree program offered by the College of Arts and Sciences.

**Bachelor of Arts**

The Bachelor of Arts degree is a liberal arts degree. The basic assumption of a liberal arts degree is that a broad knowledge base will serve the student over a lifetime.

**A. Cultural Heritages**

1. Comparative Cultures 3
   - (ANTH A250)
2. Western Culture 6
   - (HIST A101 and HIST A102)
3. American Culture 3
   - (HIST A131, HIST A132, PS A101)

**B. Arts and Letters**

1. Introduction to Literature 3
   - (ENGL A121, A301, A302, A305, A306, A307)

2. Language/Humanities 6-8
   - Any two semester sequence in one of the following humanities sequences or in a language other than English:
   - *BA Music majors must select courses outside their major.

**C. Ways of Knowing**

3
   - (ENGL A120, PHIL A101, PHIL A201, PHIL A301, PHIL A421)

**D. Social Behavior**

3
   - Choose one of the following not in the major:
     - (ANTH A101, COMM A101, ECON A201, JPC A101, PS A102, PSY A111, SOC A101, SWK/HUMS A106)

**Bachelor of Science**

The requirements of the Bachelor of Science degree are designed to equip students with the technical competencies needed in scientific disciplines.

**A. Mathematics and Statistics**

- (MATH A200 or MATH A272) 3-4
- (AS A235 or AS A307) 3-4

**B. Computer Programming**

- (CS A105, CS A107, CS A109, CS A201, CS A203, ES A201) 3
DEGREE REQUIREMENTS

GENERAL UNIVERSITY REQUIREMENTS
Complete General University Requirements for Associate Degrees located at the beginning of this chapter.

GENERAL EDUCATION REQUIREMENTS
Complete the General Education Requirements for Associate of Arts Degrees outlined below.

Degree Completion Requirements

6. Electives 27*
Total Minimum Credits 60

*Please note: Math A105 and CIOS A260A do not meet the General Education Requirements for the baccalaureate degree.

ADVISING NOTE FOR AA STUDENTS WHO PLAN TO PURSUE A 4-YEAR DEGREE:
AA students who plan to pursue a baccalaureate degree must take care in planning their curriculum. Please see an advisor and take note of the following:

• UAA baccalaureate students are required to complete 12 credits of Basic College-Level Skills from the Oral Communication, Written Communication, and Quantitative Skills areas of the General Education Classification List prior to completing 60 total degree applicable credits.

• Students with 60 credits or more who have not completed the Baccalaureate 12 credit Basic College-Level Skills requirement will have one full academic year to fulfill this requirement, after which they will be allowed to take additional courses as degree-seeking students. MATH A105 and CIOS A260A do not count toward completing the baccalaureate GER requirements.

• Students who plan to apply AA credits to a UAA baccalaureate (4-year) degree, and who know the program or major they are going to transfer into, should consult the General Education Requirements for their specific program or major. Programs often require specific GER courses for their majors. Students planning to transfer should use AA electives to fulfill prerequisites and requirements for their anticipated major.

• Students who plan to apply AA credits to a UAA baccalaureate (4-year) degree, and who do not know which program or major they wish to pursue, should plan as follows:

1. Oral Communication Skills 3
   COMM A111 Fundamentals of Oral Communication
   COMM A235 Small Group Communication
   COMM A237 Interpersonal Communication
   COMM A241 Public Speaking

2. Written Communication Skills 6
   ENGL A111 Methods of Written Communication, and one of the following:
   CIOS A260A Business Communications*
   ENGL A211 Academic Writing About Literature
   ENGL A212 Technical Writing
   ENGL A213 Writing in the Social and Natural Sciences
   ENGL A214 Persuasive Writing

C. Language/Humanities 6-8
   Any 2 semester sequence in French, German, Japanese, Russian, or Spanish or one of the following humanities sequences:
   (ART A261-A262, ENGL A201-A202, MUS A221-A222
   PHIL A211-A212, PHIL A313B-A314, PS A332-A333
   THR A311-A312, THR A411-A412)

D. Natural Sciences 9*
To be selected from the following list:
   (ASTR A103, A204
   BIOL A102, A103, A111, A112, A113, A114, A115, A116,
   CHEM A103/L, A104/L, A105/L, A106/L
   GEOG A111, A221
   PHYS A123/L, A124/L, A211/L, A212/L)
*The total natural science requirement of each student includes 16 credits (7 credits from the General Education natural science requirement and 9 credits from the CAS Bachelor of Science requirement). These two requirements may be met by any combination of applicable courses that combine to 16 credits. The total must include two laboratory courses and at least 6 credits in each of two disciplines.
3. Humanities and Fine Arts
   One course from the Fine Arts area of GER Classification List (3)

4. Math and Natural Sciences
   One Math / AS course from the Quantitative Skills area of GER Classification List (3)

5. Social Sciences
   Two Social Science courses (from two different disciplines) from the Social Sciences area of GER Classification List (6)

Since the AA degree requirements are different from the 4-year degree requirements, AA students who pursue a baccalaureate degree may be required to take additional courses to satisfy the General Education Requirements for the 4-year degree after declaring their major.

ALASKA NATIVE STUDIES

http://native.uaa.alaska.edu
Social Sciences Building (SSB), Room 378, (907) 786-6135

The Alaska Native Studies program provides the student with an introduction to Alaskan Native ways of knowing and seeing the world, an experiential and theoretical exploration of Alaskan Native cultures, and a series of critical perspectives on traditional and contemporary Native experiences and politics in a pluralistic society. Students may select one of two areas to complete the requirements for the minor, a policy focus or a language focus. Both of these areas emphasize the dynamic nature of Alaska Native cultures and the conflict between traditional Native values and those of the dominant Euro-American society. The Alaska Native Studies minor provides a valuable enrichment to any UAA Baccalaureate degree.

MINOR, ALASKA NATIVE STUDIES

1. Complete the following core courses:
   AKNS A201 Native Perspectives 3
   AKNS A492 Seminar: Cultural Knowledge of Native Elders 3

2. Complete one of the following Focus Areas: 7-9
   A. Policy Focus
      AKNS A290 Selected Topics in Alaska Native Studies (1-3) and/or
      AKNS A490 Selected Topics in Alaska Native Studies (1-3)
      AKNS/PS A346 Alaska Native Politics (3)
      AKNS/PS A411 Tribes, Nations and Peoples (3)
   B. Language Focus:
      AKNS A101 Alaska Native Languages I (4)
      AKNS A102 Alaska Native Languages II (4)

3. Complete a minimum of 6 credits from the following: 6
   (must be other courses than those taken from the above focus areas)
   AKNS A101 Alaska Native Languages I (4)
   AKNS A102 Alaska Native Languages II (4)
   AKNS A109 Alaska Native Language Orthography (4)
   AKNS/PS A110 Parliamentary Procedures (1)
   AKNS/DNCE A146 Introduction to Alaska Native Dance (1-2)
   AKNS/MUS A215 Music of Alaska Natives and Indigenous Peoples of Northern Regions (3)
   AKNS A290 Selected Topics in Alaska Native Studies (1-3)
   AKNS A490 Selected Topics in Alaska Native Studies (1-3)
   AKNS A495 Alaska Native Studies Internship (1-3)
   ANTH A200 Natives of Alaska (3)

ANTH A427 Ethno-History of Alaska Natives (3)
ANTH A435 Northwest Coast Cultures (3)
ANTH A436 Aleut Adaptations (3)
ART A365 Native Art of Alaska (3)
EDPE A145 Alaska Native Survival Techniques (3)
ENGL A344 Topics in Native Literatures (3)
ENGL A445 Alaska Native Literature (3)
HIST A235 History of American Indians (3)
HIST A341 History of Alaska (3)
JUST A455 Rural Justice (3)
JUST A462 Indian Law and the Settlement Act (3)

A. GENERAL UNIVERSITY REQUIREMENTS
   Complete the General University Requirements for All Baccalaureate Degrees located at the beginning of this chapter.

B. GENERAL EDUCATION REQUIREMENTS
   Complete the General Education Requirements for Baccalaureate Degrees listed at the beginning of this chapter.

C. COLLEGE OF ARTS AND SCIENCES REQUIREMENTS
   Complete the College of Arts and Sciences Requirements for either a BA or BS degree located at the beginning of the CAS section.
BACHELOR OF ARTS, ANTHROPOLOGY

1. Complete 36 credits from items 2 through 6, 18 of which must be upper-division.

2. Complete four of the following core courses: 12
   - ANTH A202 Cultural Anthropology (3)
   - ANTH A205 Biological Anthropology (3)
   - ANTH A210 Introduction to Anthropological Linguistics (3)
   - ANTH A211 Fundamentals of Archaeology (3)
   - ANTH A260 Old World Archaeology (3)

3. Complete the following course:
   - ANTH A410 History of Anthropology 3

4. Complete three ethnographic area courses from the following: 9
   - ANTH A200 Natives of Alaska (3)
   - ANTH A325 Cook Inlet Anthropology (3)
   - ANTH A333 Peoples and Cultures of Southeast Asia (3)
   - ANTH A335 Native North Americans (3)
   - ANTH A336 Peoples and Cultures of South America (3)
   - ANTH A338 Peoples and Cultures of Scandinavia (3)
   - ANTH A416 Arctic Ethnology (3)
   - ANTH A427 Ethnography of Alaska Natives (3)
   - ANTH A434 Peoples and Cultures of Northeast Asia (3)
   - ANTH A457 Food and Nutrition: An Anthropological Perspective (3)

5. Complete two courses from the following topical/theoretical courses: 6
   - ANTH A270 Cross-Cultural Perspectives on Women (3)
   - ANTH A324 Culture and Personality (3)
   - ANTH A350 Survey of the Primates (3)
   - ANTH A354 Culture and Ecology (3)
   - ANTH A365 Races: Modern Human Diversity (3)
   - ANTH A400 Anthropology of Religion (3)
   - ANTH A415 Applied Anthropology (3)
   - ANTH A432 Hunting and Gathering Societies (3)
   - ANTH A445 Evolution of Humans and Disease (3)
   - ANTH A460 Medical Anthropology (3)
   - ANTH/JUST A456 Anthropology and the Law (3)

6. Anthropology Electives: 6
   - Any course in Anthropology, except for ANTH A250, may be applied toward the elective requirement.

7. Complete one statistics course from the following: 3
   - AS A252 Elementary Statistics (3)
   - AS A307 Probability (3)

8. Anthropology majors may apply to the department at the end of their junior year to undertake independent research resulting in a substantial, thesis-quality paper. A maximum of six credits will be given for the two-semester project. Prior arrangements with the department are required.

9. Selected and Special Topics courses and Independent Study courses in Anthropology may be petitioned to satisfy ethnographic area or topical/theoretical courses requirements, depending on the course content.

10. A total of 120 credits is required for the degree, of which 42 credits must be upper-division.
MINOR, ANTHROPOLOGY

Students majoring in another subject who wish to minor in Anthropology, must complete the following requirements. A total of 18 credits is required for the minor, 6 of which must be upper-division.

1. Select two courses from the following:
   - ANTH A101 Introduction to Anthropology (3)
   - ANTH A202 Cultural Anthropology (3)
   - ANTH A205 Biological Anthropology (3)
   - ANTH A210 Introduction to Anthropological Linguistics (3)
   - ANTH A211 Fundamentals of Archaeology (3)
   - ANTH A260 Old World Archaeology (3)

2. Complete at least one course from either the ethnographic area or the topical/theoretical area, as specified above for majors in Anthropology.

3. Complete three courses of anthropology electives.

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APPLIED STATISTICS

http://www.math.uaa.alaska.edu
Social Sciences Building (SSB), Room 154, (907) 786-1742

Applied Statistics courses are offered in the Department of Mathematical Sciences.

During the past several decades, the social and economic structure of the United States has shifted from an industrialized base to an information and service base. Rapid development of computer technology has led to an increase in the use of statistics as a tool for analyzing data across all disciplines. Increasing demand exists for individuals with training in statistical analysis. The unprecedented growth of research institutes nationwide confirms the importance of sampling and statistical analysis.

Statistics is now widely used in a broad spectrum of disciplines. There is, and will continue to be, substantial demand among students and various entities within the community for this program.

MINOR, APPLIED STATISTICS

Students majoring in another subject who wish to minor in Applied Statistics must complete the following requirements:

1. Complete these required courses:
   - AS A307 Probability 3
   - AS A308 Intermediate Statistics 3
   - MATH A200 Calculus I 4
   - MATH A201 Calculus II 4

2. Complete a minimum of 9 credits from the following:
   - AS A400 Selected Topics in Statistics (3) (maximum 3 credits)
   - AS A402 Scientific Sampling (3)
   - AS A403 Regression Analysis (3)
   - AS A404 Analysis of Variance (3)
   - AS A405 Nonparametric Statistics (3)
   - AS A407 Time Series Analysis (3)
   - AS A408 Multivariate Analysis (3)
   - MATH A371 Probability Models (3)
   - MATH A407 Mathematical Statistics I (3)
   - MATH A408 Mathematical Statistics II (3)

3. A total of 23 credits is required for the minor.

FACULTY

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ART

http://art.uaa.alaska.edu
Fine Arts Building (ARTS), Room 302A, (907) 786-1783

The aim of the Department of Art is to prepare and empower students to use their artistic abilities to make a difference in society. A comprehensive multi-studio approach encourages independent thinking, strengthens creativity and develops a knowledge of the critical and historical aspects of art.

Students acquire technical skills and gain confidence to work with a variety of materials while exploring and evaluating a broad heritage of past and contemporary art and design.

Students choose from three areas of study:
- BA in Art -- creative problem solving in a liberal arts context
- BFA in Art -- professional art training
- continuing education -- either as a pre or post-baccalaureate student

Students must note the following:
1. Some courses do not apply to degree programs.
2. Some courses may be taken for repeat credit.
3. Many art courses require or strongly suggest completion of certain prerequisite art courses. Non-art majors who wish to enroll in an art class without first having completed the recommended prerequisites are free to do so but may find the classroom experience difficult or unrewarding.
4. Art majors must obtain pre-registration advising and approval from art faculty for art course work undertaken each semester.

ART EDUCATION - TEACHER PREPARATION

Students preparing to teach art should consult the College of Education concerning university programs leading to art teacher certification.

GRAPHIC DESIGN OPTION - BACHELOR OF ARTS IN JPC

The Department of Journalism and Public Communications, in cooperation with the Department of Art, offers the Bachelor of Arts Degree in Journalism and Communications with the Graphic Design Option. Refer to the Journalism and Public Communications section of this University Catalog for degree requirements, or contact either department for more information.

GRAPHIC DESIGN STUDIO EMPHASIS - BACHELOR OF FINE ARTS IN ART

The Department of Art offers the Bachelor of Fine Arts Degree in Art with a Studio Emphasis in Graphic Design. Refer to the Bachelor of Fine Arts section following for degree requirements.

BACHELOR OF ARTS, ART

ADMISSION REQUIREMENTS

Complete the Admission to Baccalaureate Programs Requirements in Chapter 7, “Academic Standards and Regulations.”
GRADUATION REQUIREMENTS
Students must complete the following graduation requirements:

A. GENERAL UNIVERSITY REQUIREMENTS
Complete the General University Requirements for All Baccalaureate Degrees located at the beginning of this chapter. A maximum of 60 credits in Art may be applied toward the degree. Transfer students who are candidates for the BA degree with a major in Art must complete a minimum of 18 Art credits in residence.

B. GENERAL EDUCATION REQUIREMENTS
Complete the General Education Requirements for Baccalaureate Degrees listed at the beginning of this chapter.

C. COLLEGE OF ARTS AND SCIENCES REQUIREMENTS
Complete the College of Arts and Sciences Requirements listed at the beginning of the CAS section.

D. MAJOR REQUIREMENTS

LOWER-DIVISION ART (27 CREDITS):
1. Complete the following core courses:
   - ART A105 Beginning Drawing 3
   - ART A111 Two-Dimensional Design 3
   - ART A113 Three-Dimensional Design 3
   - ART A205 Intermediate Drawing 3
   - ART A261 History of World Art I 3
   - ART A262 History of World Art II 3
2. Choose one two-dimensional course, one three-dimensional course, and one course from either list to total 9 credits:
   - Two-Dimensional Area:
     - ART A112 Color Design (3)
     - ART A213 Beginning Painting (3)
     - ART A215 Beginning Printmaking (3)
     - ART/JPC A224 Beginning Photography (3)
     - ART A252 Beginning Graphic Design and Illustration (3)
     - ART A271 Beginning Surface Design (3)
     - ART A273 Beginning Woven Forms (3)
   - Three-Dimensional Area:
     - ART A201 Beginning Handbuilt Ceramics (3)
     - ART A202 Beginning Wheelthrown Ceramics (3)
     - ART A209 Beginning Metalsmithing and Jewelry (3)
     - ART A211 Beginning Sculpture (3)
     - ART A272 Beginning Fiber Structures (3)
     - ID A141 Interior Design (3)

   3. Complete a total of 15 upper-division credits in the areas of studio emphasis listed below; a minimum of 9 upper-division credits must be in a single area of studio emphasis:
      - Painting 6
      - Photography
      - Illustration 6
      - Drawing
      - Printmaking 6
      - Jewelry/Metalsmithing
      - Sculpture 6
      - Ceramics
      - Fibers* 6
*Note: All courses in Fibers are currently taught at the Matanuska-Susitna College and Kenai Peninsula College campuses.
4. Complete 6 credits in upper-division Art History courses.

UPPER-DIVISION ART (21 CREDITS):
5. Complete the following:
   - PHIL A401 Aesthetics 3
   - Upper-division General Electives 18
6. A total of 120 credits are required for the degree, of which 42 credits must be upper-division.

BACHELOR OF FINE ARTS, ART
The Bachelor of Fine Arts degree is a professionally oriented program designed to prepare students for careers in art. Enrollment in the BFA program is recommended only for those students willing to make the considerable commitment of time and energy necessary to achieve professional competence in their primary area of studio emphasis.

ADMISSION REQUIREMENTS
Complete the Admission to Baccalaureate Programs Requirements in Chapter 7, “Academic Standards and Regulations.” Admission into the BFA program, termination from it, and granting of the degree are done at the discretion of the BFA Committee.

Applicants for admission into the BFA program must meet the following requirements:
1. Applicants must have been officially admitted into the College of Arts and Sciences.
2. Applicants must have completed all lower-division art requirements for the BFA degree.
3. Applicants must have been enrolled at the University of Alaska Anchorage for at least one semester.
4. Applicants must meet minimum academic GPA requirements of:
   - 2.50 overall course work
   - 3.00 overall Art course work

The following materials must be submitted to the Department of Art at least two weeks prior to the application interview with the BFA Committee:
1. Application for admission into the BFA Program.
2. Letter of intent stating objectives and qualifications. Student should indicate an awareness of the differences between the BA in Art and the BFA degree programs.
3. Copies of all college transcripts.
4. A list of all college art courses taken with grade received.

Applicants seeking admission into the BFA program will present their portfolio at a regularly scheduled BFA Committee meeting. Acceptance into the BFA program will be determined by the BFA Committee members present at the meeting. Applicants should check with the Department of Art main office for meeting times and places. Meetings are generally held once a semester. Applicants may submit works for consideration in both slide form and as original works of art.

ACADEMIC PROGRESS
To graduate with a BFA in Art students must have met the following GPA requirements:
1. A minimum overall major GPA of 3.00.
2. A minimum GPA of 3.50 in the primary area of studio emphasis.
3. A minimum cumulative GPA of 2.50 in all university course work.

SEMESTER REVIEWS
The progress of all BFA candidates will be reviewed a minimum of once a semester by the BFA committee.

THESIS PROJECT
Upon completion of all studio courses in the student’s primary and secondary areas of emphasis, BFA Candidates will enroll in ART A499 Thesis and complete a body of work which will culminate in a formal exhibition or presentation. BFA students enrolled in ART A499 Thesis will meet with the BFA Committee a minimum of twice a semester in addition to the final thesis evaluation.

Note: Students must have a thesis proposal accepted by the BFA Committee during the semester prior to enrollment in Art A499 Thesis.
EXHIBITIONS AND PRESENTATIONS

While BFA Candidates will generally participate in the BFA Show to be held in the Kimura Gallery, some students may elect to prepare a formal presentation of their thesis projects instead. Whatever the format, all aspects of the thesis exhibition or presentation must be approved by the BFA Committee. Exhibited and presented works will be selected by the BFA Committee.

The BFA Show may be held more than once a year as determined by available space and number of graduating BFA students. Graduating BFA students are invited, but not required, to donate one work of art to UAA’s permanent collection. Acceptance of donated student work is left to the discretion of the BFA Committee. After successfully completing all BFA requirements, the student is responsible for submitting an Application for Graduation to obtain the degree.

GRADUATION REQUIREMENTS

Students must complete the following graduation requirements:

A. GENERAL UNIVERSITY REQUIREMENTS

Complete the General University Requirements for All Baccalaureate Degrees located at the beginning of this chapter.

B. GENERAL EDUCATION REQUIREMENTS

Complete the General Education Requirements for Baccalaureate Degrees listed at the beginning of this chapter.

C. COLLEGE OF ARTS AND SCIENCES REQUIREMENTS

There are no additional college requirements for the BFA degree.

D. MAJOR REQUIREMENTS

Complete the following required art courses with a minimum overall major GPA of 3.00 and a minimum GPA of 3.50 in the primary area of studio emphasis. A minimum cumulative GPA of 2.50 in all university course work is required to graduate. A maximum of 84 credits in Art may be applied toward the degree.

Students admitted into the BFA program must complete a minimum of 24 art credits in residence at UAA after acceptance into the BFA program. For the transfer student, a minimum of 12 resident art credits must be completed in the primary area of studio emphasis, and a minimum of 3 resident art credits completed in the secondary area of studio emphasis.

LOWER-DIVISION ART (27 CREDITS):

1. Complete the following core courses:
   - ART A105  Beginning Drawing  3
   - ART A111  Two-Dimensional Design  3
   - ART A113  Three-Dimensional Design  3
   - ART A205  Intermediate Drawing  3
   - ART A241  History of World Art I  3
   - ART A242  History of World Art II  3

UPPER-DIVISION ART (42 CREDITS):

2. Choose one two-dimensional course, one three-dimensional course, and one course from either list to total 9 credits: 9

   Two-Dimensional Area:
   - ART A112  Color Design (3)
   - ART A213  Beginning Painting (3)
   - ART A215  Beginning Printmaking (3)
   - ART/JPC A224  Beginning Photography (3)
   - ART A252  Beginning Graphic Design and Illustration (3)
   - ART A271  Beginning Surface Design (3)
   - ART A273  Beginning Woven Forms (3)

   Three-Dimensional Area:
   - ART A201  Beginning Handbuilt Ceramics (3)
   - ART A202  Beginning Wheelthrown Ceramics (3)
   - ART A209  Beginning Metalsmithing and Jewelry(3)
   - ART A211  Beginning Sculpture (3)
   - ART A272  Beginning Fiber Structures (3)
   - ID A141  Interior Design (3)

UPPER-DIVISION ART (42 CREDITS):

3. Complete a total of 21 upper-division credits in a primary area of studio emphasis from the list below, with a minimum GPA of 3.50. 21

   4. Complete a total of 9 upper-division credits in a secondary area of studio emphasis from the list below: 9

      Painting  Ceramics
      Photography  Sculpture
      Jewelry/Metalsmithing  Fibers*
      Drawing  Graphic Design
      Printmaking  Illustration

   *Note: All courses in Fibers are currently taught at the Matanuska-Susitna College and Kenai Peninsula College campuses

5. Complete 9 credits in upper-division Art History.  9
6. Complete 15 credits in Studio Art courses, any 100-level or above.  15
7. Prepare and present a Thesis Project (ART A499).  3
8. Complete PHIL A401 Aesthetics (3).  3
9. A total of 121 credits is required for the degree, of which 42 credits must be upper-division.

MINOR, ART

Students majoring in another subject who wish to minor in Art must complete the following requirements. A total of 18 credits is required for the minor, 6 of which must be upper-division. ART/ED A418 and A442 are not applicable to the Art Minor.

   - Art History (ART A260 or A262)  3
   - Design (ART A111 or A113)  3
   - Drawing (ART A105, A205, A305, A307, A356, A405)  3
   - Studio Emphasis Courses  6
   - Art History or Studio Emphasis Course  3

FACULTY

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Mariano Gonzales, Associate Professor
Garry Kaulitz, Associate Professor, AFGCK@uaa.alaska.edu
B. Hugh McPeck, Assistant Professor, AFBHM@uaa.alaska.edu
Deborah Tharp, Associate Professor, AFDKT@uaa.alaska.edu
Kat Tomka, Associate Professor, AFKAT@uaa.alaska.edu
BIOLOGY is the science concerned with the study of living organisms. It encompasses a vast range of biological disciplines, from the study of microbes and molecular biology to the study of plants, animals, and the environment. The undergraduate program in the biological sciences includes courses that provide students with a broad understanding of both traditional and modern biological sciences. These courses are suitable as preparation for professional degrees, for teaching, or for careers in government or industry. Both the Bachelor of Arts and the Bachelor of Science degrees are available for undergraduates. A Master of Science program in the Biological Sciences is available for students already holding the baccalaureate degree.

A program of study in the biological sciences requires completion of a basic science core curriculum in the chemical, physical and mathematical sciences as well as required and elective courses in the biological sciences. Two general divisions are recognized in the biology program: the cell-molecular and the organismal-ecology-evolution areas. The cell-molecular area focuses on preprofessional sciences for students wishing to pursue careers in medicine, dentistry, and veterinary medicine, or who wish to attend graduate school. The organismal-ecology-evolution area is a more diversified curriculum emphasizing environmental, organismal, evolutionary, and general biological sciences preparatory for graduate school or for employment in the private or public sector. Students are strongly encouraged to consult with their advisors to determine which electives suit best their programmatic needs and career requirements.

The Bachelor of Arts and the Bachelor of Science degree programs require a total of 124-125 credits for graduation and can be completed in four years by students who have had adequate high school preparation in math and sciences. Refer to the beginning of this chapter for recommended high school courses.

COMMUNITY SERVICE COURSES

The department offers a wide range of community service courses as a service to the people in the Anchorage area and extended campuses who wish to become more knowledgeable about the science of biology and how it relates to them. Unless noted otherwise in the course description, community service courses do not satisfy either core requirements or elective credit towards any degree programs in the biological sciences. All are offered as demand warrants.

BACHELOR OF ARTS, BIOLOGICAL SCIENCES

ADMISSION REQUIREMENTS

Complete the Admission to Baccalaureate Programs Requirements in Chapter 7, “Academic Standards and Regulations.”

ACADEMIC PROGRESS

In order to graduate with a BA in Biological Sciences, all courses covered under “Major Requirements” for a BA in Biological Sciences must be completed with a grade of “C” or better. Students who audit a course in biology or who are unable to earn a grade of “C” or better in the course may repeat the course. All prerequisites for biology courses must be completed with a grade of “C” or better.

GRADUATION REQUIREMENTS

Students must complete the following graduation requirements:

A. GENERAL UNIVERSITY REQUIREMENTS

Complete the General University Requirements for All Baccalaureate Degrees located at the beginning of this chapter.

B. GENERAL EDUCATION REQUIREMENTS

Complete the General Education Requirements for Baccalaureate Degrees listed at the beginning of this chapter.

C. COLLEGE OF ARTS AND SCIENCES REQUIREMENTS

Complete the College of Arts and Sciences Requirements listed at the beginning of the CAS section.

D. MAJOR REQUIREMENTS

1. Complete these required core courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL A115</td>
<td>Fundamentals of Biology I</td>
<td>4</td>
</tr>
<tr>
<td>BIOL A116</td>
<td>Fundamentals of Biology II</td>
<td>4</td>
</tr>
<tr>
<td>BIOL A242</td>
<td>Fundamentals of Cell Biology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL A252</td>
<td>Principles of Genetics</td>
<td>4</td>
</tr>
<tr>
<td>BIOL A310</td>
<td>Animal Physiology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL A492</td>
<td>Undergraduate Seminar</td>
<td>1</td>
</tr>
<tr>
<td>CHEM A105/L</td>
<td>General Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM A108/L</td>
<td>General Chemistry II</td>
<td>4</td>
</tr>
</tbody>
</table>

2. It is recommended that students complete 8 credits from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL A111</td>
<td>Physical Geology (4)</td>
<td></td>
</tr>
<tr>
<td>GEOL A221</td>
<td>Historical Geology (4)</td>
<td></td>
</tr>
<tr>
<td>PHYS A123/L</td>
<td>Basic Physics I (4)</td>
<td></td>
</tr>
<tr>
<td>PHYS A124/L</td>
<td>Basic Physics II (4)</td>
<td></td>
</tr>
</tbody>
</table>

3. Complete 15-17 credits of upper-division program electives from the following areas:

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ecology</td>
<td>3-4</td>
</tr>
<tr>
<td>Microbiology</td>
<td>4-5</td>
</tr>
<tr>
<td>Biology electives</td>
<td>8</td>
</tr>
</tbody>
</table>

4. A total of 124 credits is required for the degree, of which 42 credits must be upper-division.

BACHELOR OF SCIENCE, BIOLOGICAL SCIENCES

The Bachelor of Science degree includes a single core program of course work with two areas of study. Completing courses from the Cellular and Molecular Biology area prepares students for professional careers in areas such as medicine, dentistry and veterinary science. Completing courses from the Organismal, Ecology, and Evolutionary area prepares students for careers in environmental, organismal, evolutionary biology. A wide selection of electives is available to all students. It is imperative that students consult their advisors to determine which electives are most appropriate to their career interests. Some of these elective courses are offered periodically, depending on demand. Refer to course descriptions to identify these courses.

ADMISSION REQUIREMENTS

Complete the Admission to Baccalaureate Programs Requirements in Chapter 7, “Academic Standards and Regulations.”

ACADEMIC PROGRESS

In order to graduate with a BS in Biological Sciences, all courses covered under “Major Requirements” for a BS in Biological Sciences must be completed with a grade of “C” or better. Students who audit a course in
biology or who are unable to earn a grade of “C” or better in the course may
repeat the course. All prerequisites for biology courses must be completed
with a grade of “C” or better.

GRADUATION REQUIREMENTS
Students must complete the following graduation requirements:

A. GENERAL UNIVERSITY REQUIREMENTS
Complete the General University Requirements for All Baccalaureate
Degrees located at the beginning of this chapter.

B. GENERAL EDUCATION REQUIREMENTS
Complete the General Education Requirements for Baccalaureate
Degrees listed at the beginning of this chapter.

C. COLLEGE OF ARTS AND SCIENCES REQUIREMENTS
Complete the College of Arts and Sciences Requirements listed at the
beginning of the CAS section.

D. MAJOR REQUIREMENTS
1. Some major requirements may also be used to satisfy the College of Arts and
Sciences BS requirements.

2. Complete these required support courses:
   AS A253  Applied Statistics for the Sciences (4)  3-4
   or
   AS A307  Probability (3)  3
   or
   CHEM A105/L  General Chemistry I  4
   CHEM A106/L  General Chemistry II  4
   CHEM A321  Organic Chemistry I  4
   CHEM A322  Organic Chemistry II  4
   MATH A200  Calculus I  4
   MATH A201  Calculus II  4
   PHYS A123/L  Basic Physics I (4)  8
   and
   PHYS A124/L  Basic Physics II (4)  8
   or
   PHYS A211/L  General Physics I (4)  8
   and
   PHYS A212/L  General Physics II (4)  8

   *It is recommended that AS A308 be taken. Students may substitute AS A308
   with 3 upper-division biology credits.

3. Complete biology core courses:
   BIOL A115  Fundamentals of Biology I  4
   BIOL A116  Fundamentals of Biology II  4
   BIOL A242  Fundamentals of Cell Biology  4
   BIOL A252  Principles of Genetics  4
   BIOL A271  Principles of Ecology  4
   BIOL A308  Principles of Evolution  3
   BIOL A310  Principles of Physiology  3
   BIOL A340  General Microbiology  5
   BIOL A492  Undergraduate Seminar  1

4. Complete 11-12 credits of upper-division program electives from the following list:
   11-12
   Note: Preprofessional students may substitute CHEM A441-A442 Principles
   of Biochemistry and A443 Biochemistry Laboratory for 8 upper-division
   biology credits.
   a. Recommended electives in Cellular and Molecular Biology:
      Cellular-Molecular
      BIOL A352  Human Genetics (3)
      BIOL A461  Molecular Biology (3)
      BIOL/CHEM A471  Immunology (4)
      BIOL A488  Developmental Biology (4)
      Zoology
      BIOL A327  Parasitology (4)
      BIOL A487  Comparative Anatomy of Vertebrates (4)

      Techniques
      BIOL A403  Microtechnique (4)
      BIOL A495  Instructional Practicum: Laboratory (1)

      b. Recommended elective courses in Organismal, Ecology and Evolutionary
         Biology:
         Botany
         BIOL A316  Introduction to Plant Physiology (3)
         BIOL A331  Systematic Botany (4)
         BIOL A333  Biology of Non-Vascular Plants (4)
         BIOL A334  Biology of Vascular Plants (4)
         BIOL A439  Plant Ecology Field Course (3)
         Zoology
         BIOL A327  Parasitology (4)
         BIOL A423  Ichthyology (4)
         BIOL A425  Mammalogy (4)
         BIOL A426  Ornithology (4)
         BIOL A427  Invertebrate Zoology (4)
         BIOL A487  Comparative Anatomy of Vertebrates (4)
         Ecology-Systems
         BIOL A309  Biogeography (3)
         BIOL A373  Conservation Biology (3)
         BIOL A378  Marine Biology (3)
         BIOL A441  Animal Behavior (4)
         BIOL A475  Arctic Tundra Ecosystems (3)
         BIOL A476  Boreal Ecosystems (3)
         Techniques
         BIOL A403  Microtechnique (4)
         BIOL A495  Instructional Practicum: Laboratory (1)

      c. Special topics, independent study and individual research (credits arranged):
         BIOL A497  Independent Study in Biology
         BIOL A498  Individual Research

5. A total of 122-125 credits is required for the degree, of which 42 credits must be
upper-division.

BACHELOR OF SCIENCE, NATURAL SCIENCES
The Department of Biological Sciences also oversees the Bachelor of Science in
Natural Sciences. This curriculum emphasizes the interrelationships
among the sciences. This flexible degree program can be used to meet
admissions requirements of specific professional schools in medicine,
dentistry, and veterinary medicine. It is also designed for health sciences
practitioners who wish to obtain a stronger background in both the biologi-
cal and chemical sciences, and for those preparing to teach science at the
secondary level.

For a complete program description see the Natural Sciences section of this
chapter.

MINOR, BIOLOGICAL SCIENCES
Students majoring in another subject who wish to minor in Biological
Sciences must complete the following requirements. A total of 28 credits is
required for the minor, 12 of which must be upper-division.

| BIOL A115 | Fundamentals of Biology I | 4 |
| BIOL A116 | Fundamentals of Biology II | 4 |
| BIOL A242 | Fundamentals of Cell Biology | 4 |
| BIOL A252 | Principles of Genetics | 4 |
| BIOL A271 | Principles of Ecology | 4 |
| BIOL A308 | Principles of Evolution | 3 |
| BIOL A310 | Principals of Physiology | 3 |
| BIOL A340 | General Microbiology | 5 |
| BIOL A492 | Undergraduate Seminar | 1 |
| BIOL A115 | Fundamentals of Biology I | 4 |
| BIOL A116 | Fundamentals of Biology II | 4 |
| BIOL A242 | Fundamentals of Cell Biology | 4 |
| BIOL A252 | Principles of Genetics | 4 |

Upper-division Biology electives 12

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www.uaa.alaska.edu
A minor in Canadian Studies is available at UAA. The purpose of the minor is to offer students who have an interest in Canada the opportunity to combine a broad introduction to Canada with more detailed study of certain aspects of Canadian society. Students wishing to complete a minor in Canadian Studies must obtain prior approval for their program of study as if they were reading it naturally.

**1. Complete the following required courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTL A301</td>
<td>Canada: Introductory Survey (3)</td>
</tr>
<tr>
<td>INTL A302</td>
<td>Canada: Contemporary Issues (3)</td>
</tr>
<tr>
<td>INTL A303</td>
<td>Canada: Selected Topics (3)</td>
</tr>
</tbody>
</table>

**2. Complete 9 credits of approved electives**

The courses listed below are potentially applicable to the Canadian Studies Minor. Students will also be permitted to count special topics courses and independent study courses that focus specifically on Canada, and may repeat INTL A302, A303, and A304 for credit with a change of subtitle.

**Note:** To ensure adequate Canadian content when taking elective courses for the minor, the student must demonstrate that research and papers prepared for these courses focus on Canada.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH A416</td>
<td>Arctic Archaeology (3)</td>
</tr>
<tr>
<td>ANTH A426</td>
<td>Arctic Ethnology (3)</td>
</tr>
<tr>
<td>ANTH A335</td>
<td>Native North Americans (3)</td>
</tr>
<tr>
<td>ANTH A371</td>
<td>Selected Topics in Anthropology (1-3)</td>
</tr>
<tr>
<td>ANTH A435</td>
<td>Northwest Coast Cultures (3)</td>
</tr>
<tr>
<td>ART A365</td>
<td>Native Art of Alaska (3)</td>
</tr>
<tr>
<td>BIOL A475</td>
<td>Arctic Tundra Ecosystems (3)</td>
</tr>
<tr>
<td>ECON A415</td>
<td>Urban and Regional Economics (3)</td>
</tr>
<tr>
<td>ECON A435</td>
<td>Economics of Resources (3)</td>
</tr>
<tr>
<td>ECON A463</td>
<td>International Economics (3)</td>
</tr>
<tr>
<td>ENGL A383</td>
<td>Film Interpretation (3)</td>
</tr>
<tr>
<td>ENGL A440</td>
<td>Topics in 20th Century Comparative Literature (3)</td>
</tr>
<tr>
<td>FREN A432</td>
<td>Studies of Literature and Culture (3)</td>
</tr>
<tr>
<td>GEOG A207B</td>
<td>Edge of Fire: A Physical Geography of the American West (3)</td>
</tr>
<tr>
<td>HIST A341</td>
<td>History of Alaska (3)</td>
</tr>
<tr>
<td>HIST A431</td>
<td>Colonies and Revolution (3)</td>
</tr>
<tr>
<td>HIST A434</td>
<td>Early National Period: 1800-1850 (3)</td>
</tr>
<tr>
<td>INTL A303</td>
<td>Canada: Selected Topics (3)</td>
</tr>
<tr>
<td>INTL A304</td>
<td>Canada: Field Study Tour (1)</td>
</tr>
<tr>
<td>INTL/HIST A374</td>
<td>History of Canada to 1867 (3)</td>
</tr>
<tr>
<td>JUST A365</td>
<td>Comparative Justice Systems (3)</td>
</tr>
<tr>
<td>PS A312</td>
<td>Comparative Politics: Case Studies (3)</td>
</tr>
<tr>
<td>PS A321</td>
<td>International Relations (3)</td>
</tr>
<tr>
<td>PS/AKNS A411</td>
<td>Tribes, Nations and Peoples (3)</td>
</tr>
<tr>
<td>PS A424</td>
<td>International Law and Organization (3)</td>
</tr>
<tr>
<td>PS A490</td>
<td>Studies in Politics (1-3)</td>
</tr>
</tbody>
</table>

### FACULTY

**Diddy R.M. Hitchins, Professor, AFDHJ@uaa.alaska.edu**

**Dorn Van Dommelen, Associate Prof/Director, AFDV@uaa.alaska.edu**

### CHEMISTRY

**http://chem.uaa.alaska.edu**

**Engineering Building (ENGR), Room 333D, (907) 786-1238**

Chemistry is the science concerned with substances their properties, composition, and reactions. Recent advances in chemistry have exerted a profound influence on the progress of medicine, agriculture, industry, and commerce.

The undergraduate courses in chemistry offered at UAA are designed primarily to provide a broad knowledge of the field as a part of the program of liberal education offered by the College of Arts and Sciences. They are also designed to provide a substantial foundation in chemistry for students interested in post-graduate studies in chemistry or the other sciences, preparation for professional degrees, teaching, or a career in government or industry. Students majoring in chemistry will meet basic course requirements in inorganic, analytical, organic, physical chemistry and biochemistry.
The biochemistry option is designed for students who prefer a more biologically oriented approach to chemistry. During the past 25 years biochemistry has become a central scientific discipline linking the chemical, physical, and biological sciences. By applying the concepts and methods of chemistry to the problems of biology, biochemists have made great progress in explaining life in chemical terms.

HIGH SCHOOL PREPARATION
The Bachelor of Science degree in Chemistry with options in Chemistry or Biochemistry is a four year baccalaureate program which assumes a proper high school preparation. Consult the College of Arts and Sciences list of recommended preparatory courses in all disciplines. The specific course work which a freshman student must have mastered for admission to the Chemistry program without a deficiency includes:

English 4 years
Mathematics
   Algebra 2 years
   (This must have included at least complex numbers, logarithms, quadratic functions, inequalities and absolute values, plus conic sections).
   Geometry 1 year
   Trigonometry 1/2 year
Natural Sciences
   Physics 1 year
   (This must cover mechanics, thermodynamics, electricity and magnetism, and optics).
   Chemistry 1 year
   (This must cover elementary laboratory procedures, introduction to atoms and molecules, chemical reactions, equilibrium, and an introduction to chemical calculations).

It is strongly recommended that students graduating from high school without the preparation indicated above enroll in available non-science courses during the summer session to make up deficiencies so that they can begin the fall semester with the correct sequence of the freshman Chemistry curriculum. If this is not done, it will be necessary to carry heavier course loads or take more than eight semesters to complete the degree. Students are reminded that it is imperative for them to regularly (at least once per semester) consult a departmental advisor to evaluate their progress through the program of study.

HONORS IN CHEMISTRY
The department of Chemistry awards Departmental Honors in Chemistry to undergraduate students who show exceptional performance in all their course work. To graduate with Honors students must:
1. Satisfy all requirements for a Bachelor of Science degree in Chemistry.
2. Meet the requirements for “Graduation with Honors” as listed in Chapter 7 of this catalog.
3. Maintain a minimum GPA of 3.50 in chemistry classes.
4. Complete with distinction a written assignment in the style of a chemical journal based on the research performed in CHEM A498.
5. Notify the Departmental Honors Committee in writing at the time they file their Application for Graduation with the Enrollment Services Office that they intend to graduate with Departmental Honors.

BACHELOR OF SCIENCE, CHEMISTRY

ADMISSION REQUIREMENTS
Complete the Admission to Baccalaureate Programs Requirements in Chapter 7, “Academic Standards and Regulations.”

ACADEMIC PROGRESS
In order to graduate with a BS in Chemistry, all courses covered under “Major Requirements” for a BS in Chemistry must be completed with a grade of “C” or better.

GRADUATION REQUIREMENTS
Students must complete the following graduation requirements:

A. GENERAL UNIVERSITY REQUIREMENTS
   Complete the General University Requirements for All Baccalaureate Degrees located at the beginning of this chapter.

B. GENERAL EDUCATION REQUIREMENTS
   Complete the General Education Requirements for Baccalaureate Degrees listed at the beginning of this chapter.

C. COLLEGE OF ARTS AND SCIENCES REQUIREMENTS
   Complete the College of Arts and Sciences Requirements listed at the beginning of the CAS section.

D. MAJOR REQUIREMENTS
   Students are strongly encouraged to talk to a faculty advisor in the Chemistry Department to insure that the necessary math and science courses are taken in the first two years of study.
   1. Students working toward a degree in Chemistry can choose one of two options:

Chemistry Option (82-83 credits)
   Complete the following required courses:
   - BIOL A115 Fundamentals of Biology I 4
   - CHEM A105 General Chemistry I 3
   - CHEM A105L General Chemistry I Lab 1
   - CHEM A106 General Chemistry II 3
   - CHEM A106L General Chemistry II Lab 1
   - CHEM A253 Principles of Inorganic Chemistry 3
   - CHEM A212 Principles of Biochemistry II 3
   - CHEM A453 Advanced Inorganic Chemistry 5
   - CHEM A456 Non-linear Dynamics and Chaos (3)
   - CHEM A441 Principles of Biochemistry I 3
   - CHEM A492 Undergraduate Seminar (1) 2
   - CHEM A498 Individual Research (3) 6
   - MATH A200 Calculus I 4
   - MATH A201 Calculus II 4
   - MATH A202 Calculus III 4
   - MATH A302 Ordinary Differential Equations 3
   - PHYS A211/L General Physics I 4
   - PHYS A212/L General Physics II 4
   - Upper-division elective (choose one of the following) 3 - 4
      - BIOL A310 Principles of Physiology (3)
      - BIOL A415 Comparative Animal Physiology (4)
      - BIOL A461 Molecular Biology (3)
      - BIOL A468 Biogeochemistry (3)
      - CHEM A442 Principles of Biochemistry II (3)
      - CHEM A456 Non-linear Dynamics and Chaos (3)
      - CHEM A471 Immunochemistry (4)
      - GEOL A313 Mineralogy (4)
      - GEOL A360 Geochemistry (3)
      - GEOL A460 Environmental Geochemistry (3)
      - MATH A310 Numerical Methods (3)
      - MATH A314 Linear Algebra (3)
      - MATH A422 Partial Differential Equations (3)
      - PHYS A303 Modern Physics (3)
      - PHYS A320 Simulation of Physical Systems (3)

University of Alaska Anchorage 2005-2006 Course Catalog
www.uaa.alaska.edu
Biochemistry Option (86-87 credits)

Complete the following required courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL A115</td>
<td>Fundamentals of Biology I</td>
<td>4</td>
</tr>
<tr>
<td>BIOL A116</td>
<td>Fundamentals of Biology II</td>
<td>4</td>
</tr>
<tr>
<td>BIOL A242</td>
<td>Fundamentals of Cell Biology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL A252</td>
<td>Principles of Genetics</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Upper-division Biology (choose one of the following) 3 - 4</td>
<td></td>
</tr>
<tr>
<td>BIOL A310</td>
<td>Principles of Physiology (3)</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td>BIOL A415</td>
<td>Comparative Animal Physiology (4)</td>
</tr>
<tr>
<td>or</td>
<td>BIOL A461</td>
<td>Molecular Biology (3)</td>
</tr>
<tr>
<td>CHEM A105</td>
<td>General Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM A105L</td>
<td>General Chemistry I Lab</td>
<td>1</td>
</tr>
<tr>
<td>CHEM A106</td>
<td>General Chemistry II</td>
<td>3</td>
</tr>
<tr>
<td>CHEM A106L</td>
<td>General Chemistry II Lab</td>
<td>1</td>
</tr>
<tr>
<td>CHEM A253</td>
<td>Principles of Inorganic Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM A212</td>
<td>Quantitative Analysis</td>
<td>5</td>
</tr>
<tr>
<td>CHEM A321</td>
<td>Organic Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM A322</td>
<td>Organic Chemistry II</td>
<td>3</td>
</tr>
<tr>
<td>CHEM A323L</td>
<td>Organic Chemistry Lab</td>
<td>2</td>
</tr>
<tr>
<td>CHEM A311</td>
<td>Physical Chemistry: A Biological Orientation</td>
<td>3</td>
</tr>
<tr>
<td>CHEM A434</td>
<td>Instrumental Methods</td>
<td>4</td>
</tr>
<tr>
<td>CHEM A441</td>
<td>Principles of Biochemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM A442</td>
<td>Principles of Biochemistry II</td>
<td>3</td>
</tr>
<tr>
<td>CHEM A443</td>
<td>Biochemistry Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>CHEM A492</td>
<td>Undergraduate Seminar (I)</td>
<td>2</td>
</tr>
<tr>
<td>CHEM A498</td>
<td>Individual Research(3)</td>
<td>6</td>
</tr>
<tr>
<td>MATH A200</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>MATH A201</td>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>MATH A202</td>
<td>Calculus III</td>
<td>4</td>
</tr>
<tr>
<td>PHYS A211/L</td>
<td>General Physics I</td>
<td>4</td>
</tr>
<tr>
<td>PHYS A212/L</td>
<td>General Physics II</td>
<td>4</td>
</tr>
</tbody>
</table>

2. A total of 120-126 credits is required for the degree, of which 42 credits must be upper division.

MINOR, CHEMISTRY

Students majoring in another subject who wish to minor in Chemistry must complete the following requirements. A total of 24 credits is required for the minor.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM A105</td>
<td>General Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM A105L</td>
<td>General Chemistry I Lab</td>
<td>1</td>
</tr>
<tr>
<td>CHEM A106</td>
<td>General Chemistry II</td>
<td>3</td>
</tr>
<tr>
<td>CHEM A106L</td>
<td>General Chemistry II Lab</td>
<td>1</td>
</tr>
<tr>
<td>CHEM A212</td>
<td>Quantitative Analysis</td>
<td>5</td>
</tr>
<tr>
<td>CHEM A321</td>
<td>Organic Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM A322</td>
<td>Organic Chemistry II</td>
<td>3</td>
</tr>
<tr>
<td>CHEM A323L</td>
<td>Organic Chemistry Lab</td>
<td>2</td>
</tr>
<tr>
<td>CHEM A311</td>
<td>Physical Chemistry: A Biological Orientation</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>or</td>
<td></td>
</tr>
<tr>
<td>CHEM A331</td>
<td>Physical Chemistry I (3)</td>
<td></td>
</tr>
</tbody>
</table>

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COMMUNICATION

http://comm.uaa.alaska.edu
Administration/Humanities Building (ADM), Room 262, (907) 786-4390

The study of communication provides students with an understanding of how individuals create and interpret verbal and nonverbal messages in a variety of contexts. The minor is a broad introduction to human communication, including communication theory and practical experience in the areas of intercultural, interpersonal, organizational, small group, and public communication.

MINOR, COMMUNICATION

Students majoring in another subject who wish to minor in Communication must complete the following requirements. A total of 18 credits are required for the minor.

Select 9 credits from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM A101</td>
<td>Introduction to Human Communication</td>
<td>3</td>
</tr>
<tr>
<td>COMM A111</td>
<td>Fundamentals of Oral Communication</td>
<td>3</td>
</tr>
<tr>
<td>COMM A235</td>
<td>Small Group Communication</td>
<td>3</td>
</tr>
<tr>
<td>COMM A237</td>
<td>Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>COMM A241</td>
<td>Public Speaking</td>
<td>3</td>
</tr>
</tbody>
</table>

Select 9 credits from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM A236</td>
<td>Interviewing</td>
<td>3</td>
</tr>
<tr>
<td>COMM A305</td>
<td>Intercultural Communication</td>
<td>3</td>
</tr>
<tr>
<td>COMM A320</td>
<td>Debate and Deliberation</td>
<td>3</td>
</tr>
<tr>
<td>COMM A340</td>
<td>Nonverbal Communication</td>
<td>3</td>
</tr>
<tr>
<td>COMM A346</td>
<td>Oral Interpretation</td>
<td>3</td>
</tr>
<tr>
<td>COMM A360</td>
<td>Forensics</td>
<td>3</td>
</tr>
<tr>
<td>COMM A380</td>
<td>Theories of Human Communication</td>
<td>3</td>
</tr>
<tr>
<td>COMM A390</td>
<td>Selected Topics in Communication</td>
<td>3</td>
</tr>
<tr>
<td>COMM A412</td>
<td>Persuasion</td>
<td>3</td>
</tr>
</tbody>
</table>

FACULTY

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COMPUTER SCIENCE

http://www.math.uaa.alaska.edu
Social Sciences Building (SSB), Room 154, (907) 786-1742/4824

The Department of Mathematical Sciences offers courses covering the major areas of computer science. These courses constitute the basis for an undergraduate major that prepares students for a variety of professional and technical careers in business, industry, and government or for graduate work leading to advanced degrees. In addition, the department offers courses for students from other fields who will use computer science as a tool in their own areas.

The department offers two degrees in computer science: the Bachelor of Arts in Computer Science, and the Bachelor of Science in computer science. The BA degree gives the student the opportunity to obtain a liberal arts background while the BS program gives the student the opportunity to pursue a sciences background. The BS degree is recommended for those seeking to pursue a graduate degree in Computer Science.
Both degrees prepare the student to pursue a professional career in the computing field and are based on the 2001 computing curriculum guidelines developed by the Association for Computing Machinery (ACM) and the Accreditation Board for Engineering and Technology’s Computing Accreditation Commission (CAC). The core of both degrees emphasizes broad fundamental principles of computer science and teaches the student the necessary skills to develop solutions using current or future technology. The core topics include computer programming, systems organizations, software engineering, databases, and theory. Upon completion of the core topics, the student may select electives that explore specific areas of computer science, such as computer graphics, architecture, or intelligent systems.

**HONORS IN COMPUTER SCIENCE**

Students majoring in Computer Science are eligible to graduate with Departmental Honors if they satisfy the following requirements:

1. Meet the requirements for “Graduation with Honors” as listed in Chapter 7 of this catalog.
2. Meet the requirements for a BA/BS degree in Computer Science.
3. Earn a grade point average of 3.50 or above in the major requirements.
4. Complete a minimum of twelve upper division credits required for the major in residence.
5. Students intending to graduate with Departmental Honors must notify the Chair of the Mathematical Sciences Department, in writing, on or before the date they file their Application for Graduation with the Enrollment Services Office.

**BACHELOR OF ARTS, COMPUTER SCIENCE**

**ADMISSION REQUIREMENTS**

Complete the Admission to Baccalaureate Programs Requirements in Chapter 7, “Academic Standards and Regulations.”

**GRADUATION REQUIREMENTS**

Students must complete the following graduation requirements:

A. **GENERAL UNIVERSITY REQUIREMENTS**

Complete the General University Requirements for All Baccalaureate Degrees located at the beginning of this chapter.

B. **GENERAL EDUCATION REQUIREMENTS**

Complete the General Education Requirements for Baccalaureate Degrees listed at the beginning of this chapter.

C. **COLLEGE OF ARTS AND SCIENCES REQUIREMENTS**

Complete the College of Arts and Sciences Requirements for a BA degree listed at the beginning of the CAS section.

D. **MAJOR REQUIREMENTS**

1. Complete the following core courses:
   - CS A201 Programming Concepts 3
   - CS A203 Data Structures and Algorithms 3
   - CS A221 Computer Organization and Assembly Programming 3
   - CS A303 Object-Oriented Analysis, Design, and Programming 3
   - CS A320 Operating Systems 3
   - CS A331 Programming Language Concepts 3
   - CS A342 Networks 3
   - CS A351 Automata, Algorithms, and Complexity 3
   - CS A360 Database Systems 3
   - CS A401 Software Engineering 3
   - CS A470 Applied Software Development Project (3) 3
   - CS A495 Internship Project (3) 3

2. Complete the following required support courses:
   - AS A253 Applied Statistics for the Sciences (4) 3 or
   - AS A307 Probability (3) 3 or
   - ENGL A312 Advanced Technical Writing (3) 3 or
   - ENGL A414 Research Writing (3) 3 or
   - MATH A200 Calculus I (4) 3-4 or
   - MATH A272 Calculus II (4) 3
   - MATH A273 Calculus III (4) 3
   - MATH A274 Calculus IV (4) 3
   - MATH A276 Calculus for Business Applications (3) 3
   - MATH A301 Linear Algebra (3) 3
   - MATH A302 Discrete Mathematics (3) 3
   - MATH A307 Probability (3) 3 or
   - MATH A312 Advanced Technical Writing (3) 3 or
   - MATH A314 Research Writing (3) 3 or
   - MATH A320 Operating Systems (3) 3
   - MATH A321 Computer Organization and Assembly Programming (3) 3
   - MATH A331 Programming Language Concepts (3) 3
   - MATH A342 Networks (3) 3
   - MATH A351 Automata, Algorithms and Complexity (3) 3
   - MATH A360 Database Systems (3) 3
   - MATH A401 Software Engineering (3) 3
   - MATH A470 Applied Software Development Project (3) 3
   - MATH A495 Internship Project (3) 3

3. Complete an additional 15 upper-division credits in Computer Science, Mathematics (excluding MATH A420 and MATH A495), or Applied Statistics. Nine (9) of these credits must be in Computer Science. A maximum of three (3) credits of CS A395 may be applied to degree requirements.

4. A grade of “C” or higher must be received in all MATH, CS and AS courses required to satisfy the above program requirements.

5. Students are encouraged to develop their program with a Computer Science advisor.

6. A total of 120 credits is required for the degree, of which 42 credits must be upper-division.

**BACHELOR OF SCIENCE, COMPUTER SCIENCE**

**ADMISSION REQUIREMENTS**

Complete the Admission to Baccalaureate Programs Requirements in Chapter 7, “Academic Standards and Regulations.”

**GRADUATION REQUIREMENTS**

Students must complete the following graduation requirements:

A. **GENERAL UNIVERSITY REQUIREMENTS**

Complete the General University Requirements for All Baccalaureate Degrees located at the beginning of this chapter.

B. **GENERAL EDUCATION REQUIREMENTS**

Complete the General Education Requirements for Baccalaureate Degrees listed at the beginning of this chapter.

C. **COLLEGE OF ARTS AND SCIENCES REQUIREMENTS**

Complete the College of Arts and Sciences Requirements for a BS degree listed at the beginning of the CAS section.

D. **MAJOR REQUIREMENTS**

1. Complete the following core courses:
   - CS A201 Programming Concepts I 3
   - CS A203 Data Structures and Algorithms 3
   - CS A221 Computer Organization and Assembly Programming 3
   - CS A303 Object Oriented Analysis, Design and Programming 3
   - CS A320 Operating Systems 3
   - CS A331 Programming Language Concepts 3
   - CS A342 Networks 3
   - CS A351 Automata, Algorithms and Complexity 3
   - CS A360 Database Systems 3
   - CS A401 Software Engineering 3
   - CS A470 Applied Software Development Project (3) 3
   - CS A495 Internship Project (3) 3
   - EE A241 Computer Hardware Concepts (3) 3
   - ENGL A312 Advanced Technical Writing (3) 3 or
   - ENGL A414 Research Writing (3) 3 or
   - MATH A200 Calculus I (4) 3-4 or
   - MATH A272 Calculus II (4) 3
   - MATH A273 Calculus III (4) 3
   - MATH A274 Calculus IV (4) 3
   - MATH A276 Calculus for Business Applications (3) 3
   - MATH A301 Linear Algebra (3) 3
   - MATH A302 Discrete Mathematics (3) 3
   - MATH A307 Probability (3) 3 or
   - MATH A312 Advanced Technical Writing (3) 3 or
   - MATH A314 Research Writing (3) 3 or
   - MATH A320 Operating Systems (3) 3
   - MATH A321 Computer Organization and Assembly Programming (3) 3
   - MATH A331 Programming Language Concepts (3) 3
   - MATH A342 Networks (3) 3
   - MATH A351 Automata, Algorithms and Complexity (3) 3
   - MATH A360 Database Systems (3) 3
   - MATH A401 Software Engineering (3) 3
   - MATH A470 Applied Software Development Project (3) 3
   - MATH A495 Internship Project (3) 3

2. Complete the following required support courses:
   - AS A253 Applied Statistics for the Sciences (4) 3 or
   - AS A307 Probability (3) 3 or
   - ENGL A312 Advanced Technical Writing (3) 3 or
   - ENGL A414 Research Writing (3) 3 or
   - MATH A200 Calculus I (4) 3-4 or
   - MATH A272 Calculus II (4) 3
   - MATH A273 Calculus III (4) 3
   - MATH A274 Calculus IV (4) 3
   - MATH A276 Calculus for Business Applications (3) 3
   - MATH A301 Linear Algebra (3) 3
   - MATH A302 Discrete Mathematics (3) 3
   - MATH A307 Probability (3) 3 or
   - MATH A312 Advanced Technical Writing (3) 3 or
   - MATH A314 Research Writing (3) 3 or
   - MATH A320 Operating Systems (3) 3
   - MATH A321 Computer Organization and Assembly Programming (3) 3
   - MATH A331 Programming Language Concepts (3) 3
   - MATH A342 Networks (3) 3
   - MATH A351 Automata, Algorithms and Complexity (3) 3
   - MATH A360 Database Systems (3) 3
   - MATH A401 Software Engineering (3) 3
   - MATH A470 Applied Software Development Project (3) 3
   - MATH A495 Internship Project (3) 3

University of Alaska Anchorage 2005-2006 Course Catalog www.uaa.alaska.edu
UNDERGRADUATE PROGRAMS, COLLEGE OF ARTS AND SCIENCES

MATH A200 Calculus I 4
MATH A201 Calculus II 4
MATH A231 Introduction to Discrete Mathematics 3
PHYS A123/L Basic Physics I (4) 4
or
PHYS A211/L General Physics I (4)
PHYS A124/L Basic Physics II (4) 4
or
PHYS A212/L General Physics II (4)

3. Complete an additional 12 upper-division credits in Computer Science, Mathematics (excluding MATH A420 and MATH A495), or Applied Statistics. Nine (9) of these credits must be in Computer Science. A maximum of three (3) credit of CS A395 may be applied to degree requirements.

4. A grade of “C” or higher must be received in all MATH, CS, and AS courses required to satisfy the above program requirements.

5. Students are encouraged to develop their program with a Computer Science advisor.

6. A total of 120 credits are required for the degree, of which 42 credits must be upper-division.

MINOR, COMPUTER SCIENCE

Students majoring in another subject who wish to minor in Computer Science must complete the following requirements:

1. Complete the five required courses:
   - CS A101 Introduction to Computer Science 3
   - CS A201 Programming Concepts 3
   - CS A203 Data Structures and Algorithms 3
   - CS A221 Computer Organization and Assembly Programming 3
   - MATH A231 Introduction to Discrete Mathematics 3

2. Complete 9 credits of upper-division Computer Science courses.

3. A total of 24 credits is required for the minor.

FACULTY

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Kenrick Mock, Assistant Professor, AFKJM@uaa.alaska.edu
Frank Moore, Assistant Professor, AFFWM@uaa.alaska.edu
Kirk Scott, Assistant Professor, AFKAS@uaa.alaska.edu

MINOR WITH DISTINCTION,
CREATIVE WRITING AND LITERARY ARTS

Students majoring in another subject who wish to minor in Creative Writing and Literary Arts with Distinction will be required to produce a thesis project in consultation with their advisor, consisting of approximately 30 pages of fiction, creative nonfiction, drama, or poetry, prefaced by an analytical essay and followed by an annotated bibliography. For a CWLA Minor with Distinction, a student must maintain a GPA of 3.5 in the minor.

1. Complete 9 credits from the following list of undergraduate writing workshops and magazine production course offerings. Note that at least 6 credits must be upper division:
   - CWLA A259 Short Format Introduction to Creative Writing (1)
   - CWLA A260 Introduction to Creative Writing (3)
   - CWLA A261 Art/Literary Magazine Production (3)
   - CWLA A352 Undergraduate Writer’s Workshop: Poetry (3)
   - CWLA A362 Undergraduate Writer’s Workshop: Fiction (3)
   - CWLA A372 Undergraduate Writer’s Workshop: Nonfiction (3)

2. Complete 6 credits from the following:
   - CWLA A461 Writing and Gender (3)
   - CWLA A490 The Writer’s Craft (3)

3. Complete the following required project:
   - CWLA A499 Thesis (3)

4. A total of 18 credits is required for the minor.

FACULTY

Jo-Ann Mapson, Term Assistant Professor, AFJM2@uaa.alaska.edu
Linda McCarriston, Professor, AFJLM@uaa.alaska.edu
Sherry Simpson, Associate Professor, AFSS3@uaa.alaska.edu
Ronald Spatz, Professor, AFRMS1@uaa.alaska.edu

ENGLISH

http://english.uaa.alaska.edu/
Professional Studies Building (PSB), Room 212, (907) 786-4355

The programs offered by the Department of English provide an opportunity for a truly liberal education, one that encourages both self-discovery and an exploration of enduring ideas. The curriculum includes courses in composition, rhetoric, literature, linguistics, and thinking strategies. The composition program provides courses that fulfill the university’s general education requirement in written communication. More advanced writing courses offer opportunities for students to develop skill in electronic communication, disciplinary writing, and research.

Students who major in English choose one of two options: literature or rhetoric and language. The literature option focuses on significant examples of literature from different periods and genres, as well as the social and cultural forces that shape them. The rhetoric and language option focuses on rhetorical strategies and techniques of composition, emphasizing historical and theoretical perspectives in contemporary settings. Both options prepare majors to conduct research in the discipline and to write for a variety of purposes and audiences. In addition, both options offer the opportunity to earn honors in English.
The Literature minor in English enhances the experience of students majoring in other subjects by providing a study of significant authors and literary works, as well as by developing skills in writing and critical analysis.

The Professional Writing minor prepares students to interpret and present complex information in a readable form to various audiences using a variety of media, including written words, illustrations, digital multimedia, online help systems, web sites, and video. The minor develops strong language, visual, and analytical skills, as well as aptitude for technical information, particularly in the industry in which students plan to work: computer science, engineering, medicine, aerospace, or business.

For information on English placement tests, challenge exams, transfer credits, petition procedures, or special registration, contact the English Department.

HONORS IN ENGLISH

The Department of English recognizes exceptional undergraduate students by awarding them Departmental Honors in English and noting the award on their permanent university transcript. Honors in English may be coordinated with the UAA Honors Program. To graduate with Departmental Honors, the student must be a declared English major, satisfy all requirements for a BA degree in English (literature or rhetoric option), and meet the following requirements:

1. Meet the requirements for “Graduation with Honors” as listed in Chapter 7 of this catalog.
2. Maintain a grade-point average of 3.5 in all courses in the English major.
3. Complete 6 credits of the following 400-level topics courses with a grade of A:
   - ENGL A403 Topics in Autobiography (3)
   - ENGL A404 Topics in Women's Literature (3)
   - ENGL A429 Major Authors (3)
   - ENGL A440 Topics in Twentieth-Century Comparative Literature (3)
   - ENGL A444 Topics in Native Literatures (3)
   - ENGL A490 Selected Topics in English (2-4)
   - ENGL A491 Topics in Composition and Rhetoric (3)
4. Complete ENGL A499, English Honors Thesis, with a grade of A in the judgement of two faculty readers. The thesis must be completed under the guidance of a member of the English faculty and should be 30-40 pages in length. Students are encouraged to enroll concurrently in ENGL A414: Research Writing.

BACHELOR OF ARTS, ENGLISH

ADMISSION REQUIREMENTS

Complete the Admission to Baccalaureate Programs Requirements in Chapter 7, “Academic Standards and Regulations.”

GRADUATION REQUIREMENTS

Students must complete the following graduation requirements:

A. GENERAL UNIVERSITY REQUIREMENTS

Complete the General University Requirements for All Baccalaureate Degrees located at the beginning of this chapter.

B. GENERAL EDUCATION REQUIREMENTS

Complete the General Education Requirements for Baccalaureate Degrees listed at the beginning of this chapter.

C. COLLEGE OF ARTS AND SCIENCES REQUIREMENTS

Complete the College of Arts and Sciences Requirements listed at the beginning of the CAS section.

D. MAJOR REQUIREMENTS

Students working toward a degree in English may choose from two options: Literature or Rhetoric and Language.

1. Complete the following core courses:
   - ENGL A201 Masterpieces of World Literature I (3)
   - ENGL A202 Masterpieces of World Literature II (3)
   - ENGL A351 Poetry (3)
   - ENGL A424 Shakespeare (3)
   - ENGL A435 History of Criticism (3)

2. Complete one of the following options:

   Literature Option (24 credits):

   Complete 3 credits from National Literatures:
   - ENGL A301 Literature of Britain I (3)
   - ENGL A302 Literature of Britain II (3)
   - ENGL A305 Topics in National Literatures (3)
   - ENGL A306 Literature of the United States I (3)
   - ENGL A307 Literature of the United States II (3)

   Complete 3 credits from each Period:
   - Early
     - ENGL A310 Ancient Literature (3)
     - ENGL A315 Medieval Literature (3)
     - ENGL A320 Renaissance Literature (3)
   - Middle
     - ENGL A325 Neoclassical Literature (3)
     - ENGL A330 Literature of Romanticism (3)
     - ENGL A340 The Victorian Period (3)
   - Late
     - ENGL A342 The Modernist Period (3)
     - ENGL A343 Contemporary Literature (3)
     - ENGL A440 Topics in 20th Century Comparative Literature (3)

   Complete 3 credits from Genre:
   - ENGL A361 The Novel (3)
   - ENGL A363 The Short Story (3)
   - ENGL A371 Prose Nonfiction (3)
   - ENGL A381 Drama (3)
   - ENGL A383 Film Interpretation (3)
   - ENGL A391 Genres of Subject and Theme (3)

   Complete 3 credits from Specialized Studies:
   - ENGL A403 Topics in Autobiography (3)
   - ENGL A404 Topics in Women's Literature (3)
   - ENGL A429 Major Authors (3)
   - ENGL A444 Topics in Native Literatures (3)
   - ENGL A445 Alaska Native Literatures (3)

   Complete upper-division English electives:

Rhetoric and Language Option (24-25 credits):

Complete 6 credits from Nature of Language:
   - LING A101 The Nature of Language (3)
   - LING A201 Intermediate Grammar (3)

Complete 6 credits from Advanced Composition:
   - ENGL A311 Advanced Composition (3)
   - ENGL A312 Advanced Technical Writing (3)
   - ENGL A313 Professional Writing and Editing (1-3)
   - ENGL A414 Research Writing (3)

Complete the following:
   - ENGL A434 History of Rhetoric (3)

Complete 3-4 credits from Applied Linguistics:
   - ENGL A450 Linguistics and Language Teaching (4)
   - ENGL A452 English Grammar and Language Teaching (4)
   - ENGL A487 Standard Written English (3)

Complete 3 credits from Rhetoric and Language Theory:
   - ENGL A475 Modern Grammar (3)
   - ENGL A476 History of English Language (3)
   - ENGL A491 Topics in Composition and Rhetoric (3)

Complete 3 credits upper-division elective:
   - ENGL A495 Internship in Professional Writing (1-3) (Recommended)
3. A total of 120 credits is required for the degree, of which 42 credits must be upper-division.

MINOR, ENGLISH

The Department of English offers a minor in English with an emphasis in Professional Writing or an emphasis in Literature. A total of 18 credits is required for the minor.

LITERATURE EMPHASIS

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL A201 Masterpieces of World Literature I</td>
<td>3</td>
</tr>
<tr>
<td>ENGL A202 Masterpieces of World Literature II</td>
<td>3</td>
</tr>
<tr>
<td>ENGL A351 Poetry</td>
<td>3</td>
</tr>
<tr>
<td>ENGL A424 Shakespeare</td>
<td>3</td>
</tr>
<tr>
<td>ENGL A435 History of Criticism</td>
<td>3</td>
</tr>
</tbody>
</table>

Upper-division English elective 3

PROFESSIONAL WRITING EMPHASIS

One of the following: 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL A212 Technical Writing (3)</td>
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</tr>
<tr>
<td>ENGL A213 Writing in the Social and Natural Sciences (3)</td>
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</tr>
<tr>
<td>ENGL A214 Persuasive Writing (3)</td>
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</table>

Two of the following: 6

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL A311 Advanced Composition (3)</td>
<td></td>
</tr>
<tr>
<td>ENGL A312 Advanced Technical Writing (3)</td>
<td></td>
</tr>
<tr>
<td>ENGL A313 Professional Writing and Editing (3)</td>
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</tbody>
</table>

One of the following: 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL A414 Research Writing (3)</td>
<td></td>
</tr>
<tr>
<td>ENGL A495 Internship in Professional Writing (1-3)</td>
<td></td>
</tr>
</tbody>
</table>

And both of the following: 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL A434 History of Rhetoric</td>
<td></td>
</tr>
</tbody>
</table>

Upper-division elective approved by the English Department 3

FACULTY

Genie Babb, Associate Professor, AFGN@uaa.alaska.edu
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Suzanne Forster, Associate Professor, AFJS@uaa.alaska.edu
Michael Haley, Professor, AFMCH@uaa.alaska.edu
Patricia Jenkins, Associate Professor, AFITM@uaa.alaska.edu
Dan Kline, Associate Professor, AFDTK@uaa.alaska.edu
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Judith Moore, Professor, AFJMKI@uaa.alaska.edu
Kerri Morris, Associate Professor, AFKRM@uaa.alaska.edu
Clay Nanally, Professor, AFJCN@uaa.alaska.edu
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Jennifer Ritter, Assistant Professor, AFJR@uaa.alaska.edu
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Jeff White, Assistant Professor, AFJWC@uaa.alaska.edu
Toby Widdicombe, Professor/Chair, AFRTW@uaa.alaska.edu

ENVIRONMENTAL STUDIES

http://envi.uaa.alaska.edu
ENVI/STUDIES@uaa.alaska.edu
Institute of Social and Economic Research, Diplomacy Building (DPL), Room 504H, (907) 786-1753

Which is better: paper or plastic? How wet is a wetland? What are xenoestrogens and polycyclic aromatic hydrocarbons, and why should we care? Is sustainable development possible? Is global warming real?

Addressing today’s environmental issues requires skills in the natural and social sciences, a coherent ethical stance informed by knowledge of history, other cultures, and the humanities, and the ability to think critically in an interdisciplinary way. UAA offers two ways for undergraduates to increase their environmental literacy. The interdisciplinary minor in Environmental Studies allows students to organize a portion of their studies around the environment and begin to acquire problem-solving skills that combine sound science with an appreciation of economic, social and ethical trade-offs. In addition, the introductory courses ENVI A201-A202 by themselves offer a broad-based introduction to the field and its many relationships to other disciplines.

MINOR, ENVIRONMENTAL STUDIES

Students majoring in another subject who wish to minor in Environmental Studies must complete the following requirements. At least 18 credits are required for the minor.

1. Complete the following required core courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVI A201 Living on Earth: Introduction to Environmental Studies</td>
<td>3</td>
</tr>
<tr>
<td>ENVI A202 Earth as an Ecosystem: Introduction to Environmental Science</td>
<td>3</td>
</tr>
<tr>
<td>BIOL A373 Environmental Biology</td>
<td>3</td>
</tr>
<tr>
<td>ENVI A492 Proseminar in Environmental Studies</td>
<td>3</td>
</tr>
</tbody>
</table>

2. Complete at least 3 credits of approved electives related to environmental science and engineering. The following courses are automatically approved. Other courses may be approved on a one-time basis by the designated Director of Environmental Studies if a student demonstrates sufficient environmental studies content.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL A309 Biogeography</td>
<td>(3)</td>
</tr>
<tr>
<td>BIOL A331 Systematic Botany</td>
<td>(4)</td>
</tr>
<tr>
<td>BIOL A475 Arctic Tundra Ecosystems</td>
<td>(3)</td>
</tr>
<tr>
<td>BIOL A476 Boreal Ecosystems</td>
<td>(3)</td>
</tr>
<tr>
<td>BIOL A485 Selected Topics in Biology</td>
<td>(1-4)</td>
</tr>
<tr>
<td>CE A344 Water Resources Engineering</td>
<td>(3)</td>
</tr>
<tr>
<td>CE A441 Sanitary Engineering</td>
<td>(3)</td>
</tr>
<tr>
<td>CHEM A450 Environmental Chemistry</td>
<td>(3)</td>
</tr>
<tr>
<td>GIS A370 GIS and Remote for Natural Resources</td>
<td>(3)</td>
</tr>
<tr>
<td>GEOG A205 Elements of Physical Geography</td>
<td>(3)</td>
</tr>
<tr>
<td>GEOL A115 Environmental Geology</td>
<td>(3)</td>
</tr>
<tr>
<td>GEOL A304 Geomorphology</td>
<td>(4)</td>
</tr>
</tbody>
</table>

NOTE: BIOL A485 is conditional on appropriate environmental content as determined by designated Director of Environmental Studies: determination to be made when course content is announced.

3. Complete at least 3 credits of approved electives related to environmental policy, values, and history. The following courses are automatically approved. Other courses may be approved on a one-time basis by the designated Director of Environmental Studies if a student demonstrates sufficient environmental studies content.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AKNS A201 Native Perspectives</td>
<td>(3)</td>
</tr>
<tr>
<td>ANTH A354 Culture and Ecology</td>
<td>(3)</td>
</tr>
<tr>
<td>ANTH A432 Hunting and Gathering Societies</td>
<td>(3)</td>
</tr>
<tr>
<td>ECON/ENVI A210 Environmental Economics and Policy</td>
<td>(3)</td>
</tr>
<tr>
<td>ECON A435 Economics of Resources</td>
<td>(3)</td>
</tr>
<tr>
<td>ENVI/PHIL A303 Environmental Ethics</td>
<td>(3)</td>
</tr>
<tr>
<td>GEOG A101 Introduction to Geography</td>
<td>(3)</td>
</tr>
<tr>
<td>GEOG A343 Historical Geography</td>
<td>(3)</td>
</tr>
<tr>
<td>HIST A440 The American West Since 1850</td>
<td>(3)</td>
</tr>
<tr>
<td>JUST A491 Natural Resources Law</td>
<td>(3)</td>
</tr>
<tr>
<td>SOC A404 Environmental Sociology</td>
<td>(3)</td>
</tr>
</tbody>
</table>

FACULTY

Steve Colt, Director, AFSGC@uaa.alaska.edu

AFFILIATED FACULTY

Lilian Alessa, Assistant Professor of Biological Sciences, AFLA@uaa.alaska.edu
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Frank von Hippel, Assistant Professor of Biological Sciences, AFVH@uaa.alaska.edu
Andrew Kliskey, Assistant Professor of Biological Sciences, AFADK@uaa.alaska.edu
LeeAnn Munk, Assistant Professor Geology, AFML@uaa.alaska.edu
GEOLOGY

http://geology.uaa.alaska.edu
Beatrice McDonald Hall (BMH), Room 212, (907) 786-6840

Geology is the science that pursues an understanding of planet Earth. The geological sciences program incorporates areas of study in 1) Earth materials including mineralogy, petrology, sedimentology and stratigraphy, volcanology, ore deposits, and structure, 2) geologic Earth history including historical geology and paleontology, 3) Earth surface processes including geomorphology, soils, paleoclimatology, and glacial geology, and 4) Earth’s environmental systems including hydrogeology, environmental geochemistry and geophysics. The curriculum is designed to provide students with a solid understanding of the geological sciences that will prepare them for graduate studies, government and industry employment, and teaching. A Bachelor of Science degree in Geological Sciences is available for undergraduates.

The geological sciences focus on combining classroom education with field work and laboratory experiments, and strive to involve students in all aspects of the science. The Geological Sciences faculty is highly motivated to transmit both their knowledge and passion for the geological sciences. Students who enjoy working outdoors, have a strong scientific background, and are interested in earth processes will find the geological sciences an intriguing and rewarding area of study.

A program of study in the geological sciences requires completion of a basic science curriculum in the chemical, physical, and mathematical sciences in addition to core courses and elective courses in the geological sciences. The undergraduate degree in geology offers students with a choice of focus in either general geology or environmental geology. The general geology track includes core geology courses with a range of upper division courses as electives. The environmental geology track requires the core geology courses as well as specific upper division electives that focus on environmental topics such as environmental geochemistry, hydrogeology, and soils. Students are strongly encouraged to consult with faculty in the geologic sciences to choose an appropriate direction of study that suits their goals.

The Bachelor of Science degree program in Geological Sciences requires a minimum of 120 credits for graduation and can be completed in four years by students who have adequate high school preparation in the sciences and math. Consult the College of Arts and Sciences list of recommended preparatory courses in all disciplines.

PROGRAM OBJECTIVES AND EXPECTED OUTCOMES

The curriculum of the UAA Geological Sciences program is designed to produce graduates who:

1. Have a basic knowledge of the principles related to the geological sciences with either an emphasis in environmental geology or general geology;
2. Have an understanding of how to think scientifically and apply their knowledge to solve geologic problems;
3. Have sufficient competence to obtain employment as an entry level geologist or environmental geologist and be able to progress professionally within the discipline and are prepared for advanced study;
4. Have a fundamental understanding of Alaskan geology and environmental problems in Alaska;
5. Are able to communicate their ideas;
6. Are prepared for and understand the need for continued professional development throughout their careers.

In keeping with the objectives, it is expected that graduates of the UAA Geological Sciences program will have:

1. An ability to apply their knowledge of general geology and/or environmental geology;
2. An ability to accept challenges and think through problems until they are solved;
3. An ability to design and conduct projects that include field work, laboratory analyses and interpretation in one of the areas of emphasis;
4. Experience in field geology in Alaska;
5. An ability to communicate effectively;
6. A recognition of the need for, and ability to pursue life-long learning.

HONORS IN GEOLOGICAL SCIENCES

The Department of Geological Sciences offers recognition to students who demonstrate exceptional promise in the science by awarding them with the Departmental Honors in Geological Sciences and noting the award on their permanent university transcript. To graduate with Departmental Honors, the student must be a declared Geological Sciences Major and meet the following requirements:

1. Satisfy all requirements for a BS degree in Geological Sciences.
3. Complete GEOL A499 Senior Thesis in Geological Sciences with a "B" or better.
4. Students intending to graduate with Departmental Honors must notify the Departmental Honors Committee, in writing, on or before the date they file their Application for Graduation with the Enrollment Services Office.

BACHELOR OF SCIENCE, GEOLOGICAL SCIENCES

ADMISSION REQUIREMENTS

Complete the Admission to Baccalaureate Programs Requirements in Chapter 7, “Academic Standards and Regulations.”

ACADEMIC PROGRESS

In order to graduate with a B.S. in Geological Sciences, all courses covered under “Major Requirements” for a BS in Geological Sciences must be completed with a grade of “C” or better. Students who audit a course in geology or who are unable to earn a grade of “C” or better in the course may repeat the course. All prerequisites for geological sciences courses must be completed with a grade of “C” or better.

Please consult the undergraduate academic adviser in the Department of Geological Sciences to obtain a student handbook for the Geological Sciences major.

GRADUATION REQUIREMENTS

Students must complete the following graduation requirements:

A. GENERAL UNIVERSITY REQUIREMENTS

Complete the General University Requirements for All Baccalaureate Degrees located at the beginning of this chapter.

B. GENERAL EDUCATION REQUIREMENTS

Complete the General Education Requirements for Baccalaureate Degrees located at the beginning of this chapter.

C. COLLEGE OF ARTS AND SCIENCES REQUIREMENTS

Complete the College of Arts and Sciences Requirements listed at the beginning of the CAS section of this catalog.

D. MAJOR REQUIREMENTS

1. Some major requirements may also be used to satisfy the College of Arts and Sciences BS requirements.
2. Complete these required support courses:
   - CHEM A105 General Chemistry I 4
   - CHEM A106 General Chemistry II 4
   - PHYS A123 Basic Physics I 4
   - PHYS A124 Basic Physics II 4
   - MATH A200 Calculus I 4
   - AS A253 Applied Statistics for the Sciences (4) 3-4
   - AS A307 Probability (3)

Note: Math A201 Calculus II is highly recommended for majors in the geological sciences.
3. Complete Geological Sciences core curriculum courses:

- **A minimum of 120 credits is required for the degree, of which 42 must be upper-division credits.**
- GEOL A475 and A495 are highly recommended electives for students pursuing an emphasis in environmental geosciences.
- **GEOL A480 and A481 may be applied towards recommended electives if they are not being applied to satisfy the core curriculum credits.**
- A minimum of 120 credits is required for the degree, of which 42 must be upper-division credits.

4. Students must select one of the following tracks in the geological sciences:

   - **General Geological Sciences Track** 13-14
   - **Environmental Geological Sciences Track** 3-4

   Students may complete both tracks, but may not use the same courses to fulfill the requirements in each track.

   **General Geological Sciences Track**

   - GEOL A320 Volcanology (3)
   - GEOL A325 Geology of Ore Deposits (3)
   - GEOL A380 Anchorage Field Studies (3)
   - GEOL A381 Kenai Peninsula Field Studies (3)
   - GEOL A382 Geologic Field Studies (3)
   - GEOL A421 Invertebrate Paleontology (4)
   - GEOL A454 Glacial and Quaternary Geology (3)
   - GEOL A455 Permafrost and Periglacial Geomorphology (4)
   - GEOL A456 Geoarchaeology (3)
   - GEOL A470 Paleoecology of Beringia (4)
   - GEOL A480 Geologic Field Methods (3)
   - **GEOL A481 Alaska Field Investigations (3)**
   - **GEOL A482 Geologic Field Investigations (3)**
   - GEOL A490 Advanced Topics in Geology (1-4)
   - GEOL A492 Geology Seminar (1)
   - GEOL A495 Geology Internship (1-3)
   - GEOL A498 Student Research (1-6)
   - GEOL A499 Senior Thesis (3)

   **Environmental Geological Sciences Track**

   a. Complete the following required courses:
   - GEOL A340 Hydrogeology (3)
   - GEOL A457 Soil Genesis and Classification (4)
   - GEOL A460 Environmental Geochemistry (3)

   b. Complete 3-4 elective credits from the following:
   - GEOL A380 Anchorage Field Studies (3)
   - GEOL A381 Kenai Peninsula Field Studies (3)
   - GEOL A382 Geologic Field Studies (3)
   - GEOL A454 Glacial and Quaternary Geology (3)
   - GEOL A455 Permafrost and Periglacial Geomorphology (4)
   - GEOL A475 Environmental Geophysics (3)
   - **GEOL A480 Geologic Field Methods (3)**
   - **GEOL A481 Alaska Field Investigations (3)**
   - GEOL A490 Advanced Topics in Geology (1-4)
   - GEOL A492 Geology Seminar (1)
   - GEOL A495 Geology Internship (1-3)
   - GEOL A498 Student Research (1-6)
   - GEOL A499 Senior Thesis (3)

**MINOR, GEOLOGY**

Students majoring in another subject who wish to minor in Geology must complete the following requirements. Completion of 18-20 credits is required for the minor, 8 of which must be upper-division.

- **GEOL A111 Physical Geology (4)**
- **GEOL A221 Historical Geology (4)**
- **Upper-division Geology electives (8)**
- **Other Geology electives (2-4)**

**FACULTY**

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**GERONTOLOGY**

Gordon Hartlieb Building (GHB), Room 106, (907) 786-6900

Gerontology is the study of the aging process as individuals mature from middle age through later life. It includes the study of physical, mental, emotional and social changes in older people as they age. Gerontology investigates changes in society that result from an aging population and applies this knowledge to policies and programs. This field is multidisciplinary and the study of aging combines and/or integrates information from academic and applied areas of study.

The field of gerontology is diverse and offers many different employment opportunities. Jobs may be found in:

- Community, human service, and religious organizations
- Health care and long-term care institutions
- Federal, state, and local government agencies
- Retirement communities
- Academic and other educational and research settings
- Professional organizations
- Business organizations

The minor is comprised of a selection of courses that specifically relate to issues concerning the aging process. Because of its multidisciplinary emphasis, there is no one preferred student background necessary for working towards a minor.

Courses for the minor can be taken concurrently with courses in student’s major or may be taken after major courses are completed. Upon completion of the minor, the student will receive a minor in gerontology from UAA in addition to the bachelor’s degree. Administratively, the Gerontology Minor is housed in the Sociology Department at UAA.

**MINOR, GERONTOLOGY**

The undergraduate Minor in Gerontology is comprised of a selection of courses that specifically relate to issues concerning the aging process. A total of 18 credit hours are required for the minor.

1. Complete required Minor core courses:

   - **SOC A110 Introduction to Gerontology: A Multidisciplinary Approach (3)**
   - **SOC A310 Sociology of Aging (3)**
   - **PSY A450 Adult Development and Aging (3)**
2. Complete nine additional credits from the list below. Six of the credits must be upper-division courses. Up to six credits may be from approved practicum courses related to gerontology.

   AKNS A492  Cultural Knowledge of Native Elders (3)
   DN A245  Nutrition for the Second 50 years (3)
   HUMS A416  Substance Abuse and the Older Adult (3)
   NS A434  Health Care of the Elderly (3)
   PE A442  Exercise and Aging (3)
   PSY A143  Death and Dying (3)
   SWK A470  Social Work with the Aging and Elderly (3)
   Approved Selected/Special Topics course(s) related to Gerontology (1-3)*
   Approved Practica related to Gerontology (3-6)**

* Selected or Special Topics Courses related to aging will be periodically offered by various departments. These courses are typically listed under A490. Topics must be reviewed and approved by the gerontology committee.

Examples of existing A490 courses include:
   ANTH  Cross Cultural Perspectives on Aging
   PSY  Women and Aging
   SWK  Promoting Successful Aging

** Practica related to gerontological issues may also be used to meet minor program requirements. Practica are individualized and represent an applied or practical side of the minor and are offered by various departments. Practica must be approved by the gerontology committee. A maximum of 6 credits may be from practicum courses.

BACHELOR OF ARTS, HISTORY

ADMISSION REQUIREMENTS
Complete the Admission to Baccalaureate Programs Requirements in Chapter 7, “Academic Standards and Regulations.”

GRADUATION REQUIREMENTS
Students must complete the following graduation requirements:

A. GENERAL UNIVERSITY REQUIREMENTS
   Complete the General University Requirements for All Baccalaureate Degrees located at the beginning of this chapter.

B. GENERAL EDUCATION REQUIREMENTS
   Complete the General Education Requirements for Baccalaureate Degrees listed at the beginning of this chapter.
   *The Department recommends that its majors complete GEOG A101 to satisfy part of the CAS Social Science requirement and GEOG A205/L to satisfy part of the GER Natural Science requirement.

C. COLLEGE OF ARTS AND SCIENCES REQUIREMENTS
   Complete the College of Arts and Sciences Requirements listed at the beginning of the CAS section.

D. MAJOR REQUIREMENTS

1. Complete the following survey courses:
   - HIST A101  Western Civilization I 3
   - HIST A102  Western Civilization II 3
   - HIST A131  History of United States I 3
   - HIST A132  History of United States II 3

2. Complete 6 credits of non-Western History courses:
   - HIST A121  East Asian Civilization I (3)
   - HIST A122  East Asian Civilization II (3)
   - HIST A390A  Themes in World History*(3)
   - HIST A320  The Rise, Fall, and Reinvention of the Samurai (3)
   - HIST A321  Modern China (3)
   - HIST A322  Modern Japan (3)
   - HIST A323  Communist China

   * May be repeated once with a change in subtitle.

3. Complete 15 credits of upper-division electives.  15
   Note: Only three credits of HIST A444 may be applied to a major in History.

Note: GEOG A345 Across This Land and GEOG A415 Anglo-Saxons and Vikings are cross-listed with History and may be counted towards the upper-division electives requirement for majors.

4. Complete HIST A377 Historiography.  3
5. Complete HIST A477 Senior Seminar.  3
6. A total of 120 credits is required for the degree, of which 42 credits must be upper-division.

MINOR, HISTORY

A total of 18 credits is required for the minor, 9 of which must be upper-division.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST A101</td>
<td>Western Civilization I (3)</td>
<td>3</td>
</tr>
<tr>
<td>HIST A102</td>
<td>Western Civilization II (3)</td>
<td>3</td>
</tr>
<tr>
<td>HIST A131</td>
<td>History of United States I (3)</td>
<td>3</td>
</tr>
<tr>
<td>HIST A132</td>
<td>History of United States II (3)</td>
<td>3</td>
</tr>
</tbody>
</table>

Upper-division History electives* 9

History elective, any level 3

*Note: Only three credits of HIST A444 may be applied to a minor in History.
INTERNATIONAL NORTH PACIFIC STUDIES

Social Sciences Building (SSB), Room 359, 786-4856

In light of rapid globalization, international understanding and competency have become essential to Alaska’s destiny and the well-being of its people. Such competency embraces a broad knowledge of the international context within which residents of the North Pacific region live and work.

The interdisciplinary minor in International North Pacific Studies is designed to deliver knowledge that will serve as a foundation for an international approach to social cultural, political, economic and environmental issues in the North Pacific region. Three interdisciplinary courses, each designed to be team-taught by faculty from a variety of disciplines, serve as the core of the program. Focusing on international studies of the North Pacific region from Hong Kong to Vancouver, these courses on the North East Asian Pacific (China, the Koreas, Japan), the Russian Far East, and the Canadian Far West, address the geography, peoples, history, culture, politics and economics of the North Pacific. Combined with the study of one of the targeted North Pacific languages, and a seminar designed to integrate program elements, the minor will serve the needs of UAA students who intend to make their careers in the North Pacific arena, be it in trade, communications, education, the arts or public service.

MINOR, INTERNATIONAL NORTH PACIFIC STUDIES

Students majoring in another subject who wish to minor in International North Pacific Studies must complete the following requirements:

1. Complete the following required core courses:
   - INTL A305 Canadian Far West 3
   - INTL A335 The North East Asia-Pacific Region 3
   - INTL A355 Russian Far East 3
2. Complete 8 credits of approved courses in Chinese, Japanese, Korean or Russian.
3. Complete the North Pacific Studies seminar:
   - INTL A492 North Pacific Studies Seminar 3
4. A total of 20 credits is required for the minor.

Courses for the International North Pacific Studies minor are offered over a two-year repeating cycle. It will take two years of study to complete the minor.

JOURNALISM AND PUBLIC COMMUNICATIONS

http://jpc.uaa.alaska.edu

The Department of Journalism and Public Communications offers an undergraduate program leading to the Bachelor of Arts. All majors are required to take a set of core courses and to select one of six options. These options include journalism, public relations and advertising, telecommunications and film, photography, and general communication. Students with special needs may be allowed to take courses from more than one option. The Bachelor of Arts is accredited by the Accrediting Council on Education in Journalism and Mass Communication.

The program is designed to provide students with basic knowledge about gathering and presenting information through the various mass media. These courses also examine the place of media in society, and provide opportunities to examine social, ethical, and legal issues related to communications.

Broad scholarship is emphasized. Study is required in as many other fields as possible, such as anthropology, economics, history, language, philosophy, political science, psychology, sociology, and the sciences. This broad background is essential in preparation for careers in fields which demand a broad range of knowledge of their practitioners. Students selecting the public relations/advertising option are encouraged to take courses in marketing and business administration as part of their elective credits outside the major and the liberal arts requirements.

BACHELOR OF ARTS, JOURNALISM AND PUBLIC COMMUNICATIONS

ADMISSION REQUIREMENTS

Complete the Admission to Baccalaureate Programs Requirements in Chapter 7, “Academic Standards and Regulations.”

ACADEMIC PROGRESS

A grade of “C” or better is needed in ENGL A211 or ENGL A212, ENGL A213 and in any JPC course that is a prerequisite before proceeding to the advanced course.

GRADUATION REQUIREMENTS

Students must complete the following graduation requirements:

A. GENERAL UNIVERSITY REQUIREMENTS
   Complete the General University Requirements for All Baccalaureate Degrees located at the beginning of this chapter.

B. GENERAL EDUCATION REQUIREMENTS
   Complete the General Education Requirements for Baccalaureate Degrees listed at the beginning of this chapter.

C. COLLEGE OF ARTS AND SCIENCES REQUIREMENTS
   Complete the College of Arts and Sciences Requirements listed at the beginning of the CAS section.
D. MAJOR REQUIREMENTS

1. Students must complete 126 credits, of which 90 must be outside the major. (Courses with prefixes other than JPC are considered outside the major). These 90 credits must include 65 credits in liberal arts and sciences courses. Only 36 JPC credits will be accepted toward degree requirements. As long as 90 credits have been completed outside the major, any additional JPC credits, beyond the 36 JPC credit maximum, may be accepted toward other degree requirements. Students should know how to type before enrolling in writing classes.

2. Complete all six of the following JPC core courses:
   - JPC A101 Introduction to Mass Communication 3
   - JPC A111 Understanding Aural and Visual Communications
   - JPC A201 Writing for the Media 3
   - JPC A326 Principles of Advertising 3
   - JPC/JUST A413 Communications Law 3
   - JPC A435 Communication Research 3

3. Complete one of the following six options:

   **Journalism - Option I 18**
   - JPC A212 Editing (REQUIRED) (3)
   - JPC A215 History of Mass Communication (3)
   - JPC/ART A224 Beginning Photography (3)
   - JPC A300 Photojournalism (3)
   - JPC A301 Advanced Newswriting (3)
   - JPC A309 Radio News (3)
   - JPC A311 Magazine Writing (3)
   - JPC A329 Graphics and Publication Design (3)
   - JPC A340 Web Design (3)
   - JPC A431 Broadcast Journalism Production (3)
   - JPC A440 Practicum (1-3)
   - JPC A450 Internship in Journalism (3)
   - JPC A461 Information Age Communication (3)
   - JPC A470 The Press: Issues and Answers (3)
   - JPC A490 Selected Topics in Communication (1-3)

   **Public Relations and Advertising - Option II 18**
   - JPC A212 Editing (REQUIRED) (3)
   - JPC A215 History of Mass Communication (3)
   - JPC/ART A224 Beginning Photography (3)
   - JPC A320 Principles of Public Relations (3)
   - JPC A328 Advertising Campaign (3)
   - JPC A329 Graphics and Publication Design (3)
   - JPC A330 Advanced Public Relations (3)
   - JPC A340 Web Design (3)
   - JPC A355 Writing for Public Relations (3)
   - JPC A400 Practicum (1-3)
   - JPC A401 Magazine Production (3)
   - JPC A416 Information Age Communication (3)
   - JPC A440 The Press: Issues and Answers (3)
   - JPC A490 Selected Topics in Communication (1-3)

   **Telecommunication and Film Option III 18**
   - JPC A215 History of Mass Communication (3)
   - JPC/ART A224 Beginning Photography (3)
   - JPC A309 Radio News (3)
   - JPC A310 Audio Production (3)
   - JPC A316 Producing for Film and Television (3)
   - JPC A340 Web Design (3)
   - JPC A341 Broadcast Journalism Production (3)
   - JPC A350 Directing for Film and Television (3)
   - JPC A400 Practicum (1-3)
   - JPC A416 Information Age Communication (3)
   - JPC A440 The Press: Issues and Answers (3)
   - JPC A490 Selected Topics in Communication (1-3)

   **Graphic Design Option IV 18**
   - ART A105 Beginning Drawing (3)
   - ART A111 Two-Dimensional Design (3)
   - ART A112 Color Design (3)
   - ART A205 Intermediate Drawing (3)
   - ART A261 History of World Art I (3)
   - ART A262 History of World Art II (3)

   Complete the following 2D/3D courses:
   - ART/JPC A224 Beginning Photography (3)
   - ART A252 Beginning Graphic Design and Illustration (3)

   Complete the following Studio Emphasis courses:
   - ART A352 Intermediate Graphic Design (6)
   - ART A357 Computer Art and Design (3)
   - ART A452 Advanced Graphic Design (6)

   Complete JPC Recommended Electives:
   - JPC A320 Principles of Public Relations (3)
   - JPC A401 Magazine Production (3)
   - JPC A490 Selected Topics in Communication (1-3)
   - Any upper division photography course (3)

   **Photography - Option V 18**
   - JPC A215 History of Mass Communication (3)
   - JPC/ART A224 Beginning Photography (REQUIRED) (3)
   - JPC A300 Photojournalism (3)
   - JPC/ART A323 Color Photography (3)
   - JPC/ART A324 Intermediate Photography (3)
   - JPC/ART A331 Experimental Photography (3)
   - JPC A340 Web Design (3)
   - JPC A347 History of Photography (3)
   - JPC A400 Practicum (1-3)
   - JPC A416 Information Age Communication (3)
   - JPC/ART A424 Advanced Photography (3)
   - JPC A440 The Press: Issues and Answers (3)
   - JPC A490 Selected Topics in Communication (1-3)

   **General Communication - Option VI 18**
   - As a sixth option, students may take a cross section of the above courses upon justification to and approval of advisor.

4. A total of 126 credits is required for the degree, of which 42 credits must be upper-division.

MINOR, JOURNALISM AND PUBLIC COMMUNICATIONS

Students majoring in another subject who wish to minor in JPC must complete the following requirements. A total of 18 credits is required for the minor, 6 of which must be upper-division.

   **JPC A101 Introduction to Mass Communication 3**
   **JPC A111 Understanding Aural and Visual Communications 3**
   **JPC A201 Writing for the Media 3**
   **JPC A261 History of World Art I 3**
   **JPC A262 History of World Art II 3**

**FACULTY**

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Frederick W. Pearce, Associate Professor/Chair, fpearce@jpc.alaska.edu
Carole Rich, Professor, crich@jpc.alaska.edu
Linguistics

http://language.uaa.alaska.edu
Administration/ Humanities Building (ADM), Room 287, (907) 786-4030

Studying Languages prepares a student to live and work in an increasingly interdependent world in which contact with other cultures is becoming more frequent and the appreciation and respect for linguistic and cultural diversity is becoming more important. The Department of Languages offers a Bachelor of Arts degree, a Minor in a single Language, and general coursework for beginning and continuing study of a variety of languages.

The Bachelor of Arts in Languages affords students the option of concentrating on one Emphasis language (Option I), or of studying an Emphasis language in combination with a second language (Option II). These options, and the degree’s use of courses from outside the Department to fulfill major requirements, reflect the diverse context in which students live and work, and recognize the inherent multidisciplinary nature of language study. This flexibility also allows students to select a program most suited to their individual interests and educational and career goals.

The Department of Languages offers French, German, Japanese, Russian, and Spanish as emphasis languages, with additional lower-division courses available in Alaska Native Languages, ASL, Chinese, Italian, Korean, and Latin. First-year courses begin building the foundations of language learning; listening, speaking, reading, and writing. Since language can only be understood within a cultural context, studying culture is included from the first semester. In courses beyond the first year, students expand and refine their language skills and further develop their cultural knowledge.

As an integral part of their education, the Department recommends that all students majoring in Languages study abroad in a country of their target language(s). The NCSA Program offers study in France and Austria; the Department administers its own exchange program with Magadan International University (Russia); and information is available from the International Student Advisor in Enrollment Services for programs in Japan and Spanish-speaking countries.

The Department of Languages encourages students to study abroad in several ways. Students earning at least 9 credits (with a “B” or better) in a single, approved Study Abroad experience may have all transferred credits approved by the Department from such programs used to satisfy major requirements. In addition, such students may request waiver of up to eight credits from the requirements necessary to complete the major under either Option. If completing Option II, such waiver may apply to requirements for either the Emphasis or the second language, as appropriate. See the Department for specific policies regarding transferring credits and satisfying major requirements with study abroad experience.

Honors in Languages

The Department of Languages recognizes exceptional undergraduate students by awarding them Departmental Honors in Languages and noting the award on their permanent university transcript. To graduate with Departmental Honors, students must be declared Languages Majors and meet the following requirements:

1. Satisfy all requirements for a BA degree in Languages;
2. Maintain an overall UAA GPA of 3.50;
3. Receive an honors score (based upon criteria established by the Department) on a comprehensive examination in the language(s) of focus;
4. Complete a senior project, in addition to the major requirements, which will be presented in the emphasis language and will be the outcome of a three-credit Independent Study during the student’s final semester of study;
5. Notify their Departmental Advisor in writing during the semester prior to graduation of intent to graduate with Departmental Honors.

Bachelor of Arts, Languages

Admission Requirements

1. Complete the Admission to Baccalaureate Programs Requirements in Chapter 7, “Academic Standards and Regulations.”
2. Complete an 8-credit language sequence, A101-102, with a grade of “B” or better, in French, German, Japanese, Russian, or Spanish.

Academic Progress

No course in which a grade below “C” has been received will count towards the major.

Graduation Requirements

Students must complete the following graduation requirements:

A. General University Requirements

Complete the General University Requirements for All Baccalaureate Degrees located at the beginning of this chapter.

B. General Education Requirements

Complete the General Education Requirements for Baccalaureate Degrees listed at the beginning of this chapter.

C. College of Arts and Sciences Requirements

Complete the College of Arts and Sciences Requirements listed at the beginning of the CAS section.

D. Major Requirements

1. Students working toward a degree in Languages may choose from two options:

Option I: Single Language

a. Choose an emphasis language from French, German, Japanese*, Russian, or Spanish.

b. Complete one of the following two courses; taking both is recommended:

   LING A101 The Nature of Language (3)
   or
   LSSS A111 Cultural Foundations of Human Behavior (3)

c. Complete required courses in the emphasis language:

   A201-A202 Intermediate I and II 8
   A301-A302 Advanced I and II 8

* Students with an emphasis language in Japanese must complete:

   JPN A290 Selected Topics in Japanese Culture 1

   Complete 12 credits of upper-division electives in or related to the emphasis language or culture, at least 9 of which must be taught in the emphasis language (see Department for list of approved courses taught in English).

e. Complete an additional 6 credits of emphasis language electives in or related to the emphasis language or culture, but which must be at the upper division if taught in the emphasis language (see Department for list of approved courses taught in English).

Option II: Dual Languages

a. Choose an emphasis language from French, German, Japanese*, Russian, or Spanish; and a second language from among those, or in Alaska Native Languages, American Sign Language, Chinese, Italian, Korean, or Latin. Other secondary languages may be chosen upon written approval of the Department.

b. Complete one of the following two courses; taking both is recommended:

   LING A101 The Nature of Language (3)
   or
   LSSS A111 Cultural Foundations of Human Behavior (3)
6. A total of 120 credits is required for the degree, of which 42 credits must be
5. Students must take at least 6 upper-division credits, in the respective language,
4. The degree program must be approved and signed by the Department of
Languages.
3. Students may not earn a major and minor in the same language.
2. Students must petition to substitute Study Abroad/Immersion experience
credits being upper division. Credits must be in one discipline chosen from
requirements: a total of 19 credits at or above the 200-level with at least 11
Students who wish to minor in languages must complete the following
MINOR, LANGUAGES
Students who wish to minor in languages must complete the following requirements: a total of 19 credits at or above the 200-level with at least 11 credits being upper division. Credits must be in one discipline chosen from the following languages:

- French
- German
- Japanese
- Russian
- Spanish

FACULTY
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Patricia Fagan, Assistant Professor, Spanish, AFPCF@uaa.alaska.edu
Hiroko Harada, Associate Professor, Japanese, AFHH@uaa.alaska.edu
Susan Kalina, Associate Professor, Russian, AFSMK@uaa.alaska.edu
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Alexandra Maloney, Term Assistant Professor, Spanish, AFAAM@uaa.alaska.edu
Francisco Miranda, Associate Professor, Spanish, AFMM1@uaa.alaska.edu
Sudarsan Rangarajan, Assistant Professor, French, AFSR1@uaa.alaska.edu

LIBERAL STUDIES

http://liberalstudies.uaa.alaska.edu
Social Sciences Building (SSB), Room 379, (907) 786-1732

The Bachelor of Liberal Studies (BLS) degree is an Interdisciplinary program that provides both significant breadth across a variety of fields, meaningful depth in a single field, and the interconnections and integration among fields that allow a fuller comprehension of the modern world. It is intended for those students who prefer a broad liberal arts and sciences degree rather than a Bachelor of Arts or Bachelor of Science degree in a single discipline. This may include students with particularly wide or still uncertain personal or career interests, or those who intend to become elementary education teachers, for whom the program has been designed specifically to incorporate the relevant State of Alaska standards and those of the National Council for Accreditation of Teacher Education (NCATE). Students wishing a career as elementary teachers should plan on pursuing the post-baccalaureate program in elementary teacher preparation following graduation with a BLS. Other students selecting the BLS may, with proper advising, wish to pursue professional graduate education in Law or other fields. While with the proper Discipline Area Concentration a BLS graduate may pursue graduate study in a particular discipline area, students who plan to attend graduate school in a specific area are generally advised to take a disciplinary major. Many of the courses comprising the BLS are also included as the arts and sciences content component of the Bachelor of Arts in Elementary Education, offered by the College of Education for those students desiring an undergraduate route to certification as an elementary teacher.

BACHELOR OF LIBERAL STUDIES

ADMISSION REQUIREMENTS
Complete the Admission to Baccalaureate Programs Requirements in Chapter 7, “Academic Standards and Regulations.”

GRADUATION REQUIREMENTS
Students must complete the following graduation requirements:

A. GENERAL UNIVERSITY REQUIREMENTS
Complete the General University Requirements for All Baccalaureate Degrees located at the beginning of this chapter.

B. GENERAL EDUCATION REQUIREMENTS
Complete the General Education Requirements for Baccalaureate Degrees listed at the beginning of this chapter.

C. MAJOR REQUIREMENTS
Courses marked with an asterisk (*) fulfill UAA General Education Requirements. Courses in bold face are also included in the Bachelor of Arts in Elementary Education, offered by the College of Education. Students must complete the following program requirements:

1. Communications and Writing Skills
- COMM A111* Fundamentals of Oral Communication 3
- ENGL A111* Methods of Written Communication 3
- ENGL A244* Persuasive Writing 3

2. Liberal Studies Integrated Sciences (LSIS) Core
- LSIS A101* Discoveries in Science 1
- LSIS A201* Life on Earth 5
- LSIS A202* Concepts and Processes: Natural Sciences 5
3. Mathematical Skills
   MATH A107 or MATH A108 or MATH A109 or 3-6
   MATH A172 or MATH A200 or MATH A201 or
   MATH A272*
   AS A252 Elementary Statistics (3) 3-4
   or
   AS A253* Applied Statistics for the Sciences (4)

4. Liberal Studies Social Sciences (LSSS) Core
   AKNS/PS A411 Tribes, Nations and Peoples 3
   LSSS A111 Cultural Foundations of Human Behavior 3
   PSY A111* General Psychology (3) 3
   or
   PSY A150* Life Span Development (3)
   ANTH A250* The Rise of Civilization 3
   HIST A355 Major Themes in US History 3
   LSSS A311 People, Places, and Ecosystems 3
   LSSS A312 Individuals, Groups, and Institutions 3

5. Liberal Studies Humanities Core
   Complete one course from GER Fine Arts list*. 3
   Complete an approved Elective in Studio Art, 3
   Performing Art or Creative Writing (Must be different from course used for the Fine Arts General Education Requirement).
   HUM A211* Introduction to Humanities I 3
   HUM A212* Introduction to Humanities II 3
   ENGL A202* Masterpieces of World Literature II 3
   Complete a two semester sequence of a Language, 6-8
   American Sign Language, or Alaska Native Studies Language course (same language both semesters)*.
   Literature Elective 3
   Complete an approved upper division Literature Elective. (Must be different from courses used for the Humanities/Fine Arts General Education Requirements).

6. Liberal Studies Integrative Core
   LSIC/PHIL A231 Truth, Beauty, and Goodness 3
   LSIC A331 Power, Authority, and Governance 3
   LSIC A332 Science, Technology, and Culture 3
   LSIC A488A Capstone Project I: Design and Research 3
   LSIC A488B Capstone Project II: Analysis and 3
   Presentation
   LSIC A192 Seminar I 1
   LSIC A292 Seminar II 1
   LSIC A392 Seminar III 1
   LSIC A492 Seminar IV 1

7. Two Discipline Area Concentration 18
   a. 12 credits in one discipline, of which 9 credits
      must be at the upper-division level, in either the Natural Sciences, Mathematical Sciences, Social Sciences, or Humanities/Fine Arts
      Disciplinary Areas and;
   b. 6 additional credits in a second discipline from either
      Natural Sciences Mathematical Sciences, Social Sciences,
      or Humanities/Fine Arts, of which 3 credits must be at the
      upper-division level.
      For example, 12 credits in Political Science and 6 credits in English.

8. Electives 7

9. A total of 120-124 credits is required for the degree, of which 42 credits must be upper division.

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MATHEMATICS
http://www.math.uaa.alaska.edu
Social Sciences Building (SSB), Room 154, (907) 786-1742

The Department of Mathematical Sciences offers a Bachelor of Science degree and a Bachelor of Arts degree in mathematics. Each degree has two options - the Traditional Option and the Secondary Teaching Preparation Option.

The Traditional Option in the baccalaureate degree programs in mathematics offer an excellent foundation for any career involving theoretical or applied mathematics. Well-trained mathematicians are in demand in many sectors of society including business, finance, education, computing, and government. The Traditional Option also prepares a student for graduate study in the mathematical sciences. The Secondary Teaching Preparation Option satisfies NCATE standards, and prepares a student to teach mathematics at the high school level.

In addition, the Department of Mathematical Sciences offers courses and programs for those students who wish to:
   a. Obtain an Associate of Applied Science degree
   b. Obtain an Associate of Arts degree
   c. Obtain a variety of Certificates
   d. Study mathematics for use in another discipline
   e. Improve job-related mathematics skills
   f. Study mathematics for self-interest

HONORS IN MATHEMATICS
Students majoring in Mathematics are eligible to graduate with Departmental Honors if they satisfy the following requirements:
1. Meet the requirements for “Graduation with Honors” as listed in Chapter 7 of this UAA catalog.
2. Meet the requirements for a BA/BS degree in Mathematics.
3. Earn grade point average of 3.5 or above in the major requirements.
4. Complete a minimum of twelve upper-division credits required for the major in residence.
5. Students intending to graduate with Departmental Honors must notify the Chair of the Mathematical Sciences Department, in writing, on or before the date they file their Application for Graduation with the Enrollment Services Office.

BACHELOR OF ARTS, MATHEMATICS

ADMISSION REQUIREMENTS
Complete the Admission to Baccalaureate Programs Requirements in Chapter 7, “Academic Standards and Regulations.”

GRADUATION REQUIREMENTS
Students must complete the following graduation requirements:

A. GENERAL UNIVERSITY REQUIREMENTS
   Complete the General University Requirements for All Baccalaureate Degrees located at the beginning of this chapter.

B. GENERAL EDUCATION REQUIREMENTS
   Complete the General Education Requirements for Baccalaureate Degrees at the beginning of this chapter.

C. COLLEGE OF ARTS AND SCIENCES REQUIREMENTS
   Complete the College of Arts and Sciences Requirements for either a BA or BS degree listed at the beginning of the CAS section.

D. MAJOR REQUIREMENTS
   Students pursuing a Bachelor of Arts degree in Mathematics may choose from two options.
1. Complete the following core courses:
   - AS A307 Probability 3
   - CS A105 FORTRAN Programming 3
   - or
   - CS A107 Pascal Programming
   - or
   - CS A109 Computer Programming (Languages vary)
   - or
   - CS A201 Programming Concepts
   - MATH A200 Calculus I 4
   - MATH A201 Calculus II 4
   - MATH A202 Calculus III 4
   - MATH A215 Introduction to Mathematical Proofs 3
   - MATH A303 Introduction to Modern Algebra 3
   - MATH A314 Linear Algebra 3

2. Complete one of the following options:
   **Traditional Option (21 Credits)**
   - MATH A302 Ordinary Differential Equations 3
   - MATH A321 Analysis of Several Variables 3
   - MATH A324 Advanced Calculus 3
   - MATH A410 Introduction to Complex Analysis 3
   - or
   - MATH A422 Partial Differential Equations 3
   a. Complete 3 additional courses from the following list:
   b. All mathematics majors must take a standardized test of knowledge of mathematics approved by the mathematics faculty for the purpose of evaluating program effectiveness. There is no minimum score required for graduation. This test will normally be taken during the senior year.

   **Secondary Teaching Preparation Option (15 Credits)**
   The Secondary Teaching Preparation Option is intended for students interested in pursuing Secondary Teacher Certification to teach mathematics at the Middle School and High School level. To obtain Secondary Teacher Certification, an approved Teacher Preparation Program must be successfully completed through the College of Education. Students choosing the Secondary Teacher Preparation Option should obtain advising from an academic advisor in the College of Education no later than the beginning of the Junior year.
   - MATH A305 Introduction to Geometries 3
   - MATH A306 Discrete Methods 3
   - MATH A420 History of Mathematics 3
   a. Complete 2 additional courses from the following list:
   b. All mathematics majors must take a standardized test of knowledge of mathematics approved by the mathematics faculty for the purpose of evaluating program effectiveness. There is no minimum score required for graduation. This test will normally be taken during the senior year.
   3. A total of 120 credits is required for the degree, of which 42 must be upper division.

**Bachelor of Science, Mathematics**

**Admission Requirements**
Complete the Admission to Baccalaureate Programs Requirements in Chapter 7, “Academic Standards and Regulations.”

**Graduation Requirements**
Students must complete the following graduation requirements:

A. **General University Requirements**
   Complete the General University Requirements for All Baccalaureate Degrees located at the beginning of this chapter.

B. **General Education Requirements**
   Complete the General Education Requirements for Baccalaureate Degrees at the beginning of this chapter.

C. **College of Arts and Sciences Requirements**
   Complete the College of Arts and Sciences Requirements for either a BA or BS degree listed at the beginning of the CAS section.

D. **Major Requirements**
   Students pursuing a Bachelor of Science degree in Mathematics may choose from two options.
   1. Complete the following core courses:
      - AS A307 Probability 3
      - CS A105 FORTRAN Programming 3
      - or
      - CS A107 Pascal Programming
      - or
      - CS A109 Computer Programming (Languages vary)
      - or
      - CS A201 Programming Concepts
      - MATH A200 Calculus I 4
      - MATH A201 Calculus II 4
      - MATH A202 Calculus III 4
      - MATH A215 Introduction to Mathematical Proofs 3
      - MATH A303 Introduction to Modern Algebra 3
      - MATH A314 Linear Algebra 3
   a. Complete 3 additional courses from the following list:
   b. All mathematics majors must take a standardized test of knowledge of mathematics approved by the mathematics faculty for the purpose of evaluating program effectiveness. There is no minimum score required for graduation. This test will normally be taken during the senior year.

   **Secondary Teaching Preparation Option (15 Credits)**
   The Secondary Teaching Preparation Option is intended for students interested in pursuing Secondary Teacher Certification to teach mathematics at the Middle School and High School level. To obtain Secondary Teacher Certification, an approved Teacher Preparation Program must be successfully completed through the College of Education. Students choosing the Secondary Teaching Preparation Option should obtain advising from an academic advisor in the College of Education no later than the beginning of the Junior year.
   - MATH A305 Introduction to Geometries 3
   - MATH A306 Discrete Methods 3
   - MATH A420 History of Mathematics 3
   a. Complete 2 additional courses from the following list:
   b. All mathematics majors must take a standardized test of knowledge of mathematics approved by the mathematics faculty for the purpose of evaluating program effectiveness. There is no minimum score required for graduation. This test will normally be taken during the senior year.
   3. A total of 120 credits is required for the degree, of which 42 credits must be upper division.
MINOR, MATHEMATICS

Students majoring in another subject who wish to minor in Mathematics must complete the following requirements. A total of 18 credits is required for the minor, 6 of which must be approved upper-division Mathematics credits.

- MATH A200 Calculus I 4
- MATH A201 Calculus II 4
- MATH A202 Calculus III 4
- Approved upper-division Mathematics electives 6

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MUSIC

http://music.uaa.alaska.edu
Fine Arts Building (ARTS), Room 356, (907) 786-1595

The Department of Music is dedicated to providing leadership in the musical arts for the state of Alaska. This is accomplished through teaching, performance, recordings, composition, publication, community outreach, and other creative and service-oriented endeavors related to the field of music. At the institutional level, the Department of Music, as a unit of the College of Arts and Sciences, provides a vital liberal arts link for the University of Alaska Anchorage.

The Department of Music exerts intellectual, pedagogic, and creative leadership at the college, pre-college and community level. Its music degree programs foster excellence in the preparation of music students for graduate school, teacher training, or other careers in music. Music faculty and programs also serve as an important community resource in the training of pre-college talent. In addition, the Department seeks to serve the lifelong learning component of the university mission in that it supports courses needed for professional development and offers the community access to opportunities for continuing education.

The Department of Music offers three degree programs: Bachelor of Arts, Music; Bachelor of Music, Performance; and Bachelor of Music, Emphasis Music Education. A minor in Music is also available.

The Bachelor of Arts, Music is a curriculum planned for those desiring a broad liberal arts education with a concentration in music. Students pursuing this degree sample courses of their choosing in each of the major academic areas while still having time to strengthen understanding and performance in their chosen musical area.

The Bachelor of Music, Performance degree is a professional music degree. Students focus on the development of skills, concepts, and sensitivities essential for success as a performing musician. Students work to achieve a high level of technical competence in their performing area while gaining a broad knowledge of music theory, history and literature.

The Bachelor of Music, Emphasis Music Education degree is a four-year program that provides initial training for a career in teaching music. This professional music degree is followed by a one-year Master of Arts in Teaching program, which completes the certification requirements for an initial teaching certificate in Music K-12. Contact the College of Education for more information. http://ed.uaa.alaska.edu/mt

BACHELOR OF ARTS, MUSIC
BACHELOR OF MUSIC, PERFORMANCE
BACHELOR OF MUSIC, EMPHASIS MUSIC EDUCATION

ADMISSION REQUIREMENTS: ALL MAJORS

Complete the Admission to Baccalaureate Programs Requirements in Chapter 7, “Academic Standards and Regulations.”

Students who declare a music major and who qualify for admission to baccalaureate study are given pre-major status.

Declaring a major in music assumes evidence of musicianship and performance ability. To demonstrate music skills, all incoming freshmen are required to complete a performance evaluation. This assists faculty in determining each student’s readiness for entry into juried private lessons, ensembles, and academic music classes. Students judged not ready for juried private lessons will be required to complete non-juried private lessons to build performance skills. To develop prerequisite understanding of music theory, those students not ready for Theory and Sightsinging/Eartraining courses will be required to complete non-juried private lessons to build performance skills. To develop prerequisite understanding of music theory, those students not ready for Theory and Sightsinging/Eartraining courses will be required to complete Music Fundamentals. Upon completion of the performance evaluation, advisors will assist students in planning a first year of study best suited to their needs.

ACADEMIC PROGRESS: ALL MAJORS

Upon successful completion of one semester of juried private lessons (MUS A154A), students file a Change of Degree form to move from pre-major to major status. At the end of the sophomore year, all music majors must demonstrate a satisfactory level of proficiency of performance on their applied instrument in order to advance to upper-division courses. A student may elect to continue private instruction at the 200-level in attempting to pass requirements for admission to upper-division study. Students must also have completed a music technical training workshop and must have demonstrated proficiency in all aspects of recital technical support.

MUS A154A, Functional Piano I, and the piano proficiency exam by jury, must be passed prior to completion of 60 credits in the program. Music majors may not enroll in certain upper-division music courses until this jury exam is passed. See music degree listings for specific requirements.

GRADUATION REQUIREMENTS: ALL MAJORS

Students must complete the following graduation requirements:

A. GENERAL UNIVERSITY REQUIREMENTS

Complete the General University Requirements for All Baccalaureate Degrees located at the beginning of this chapter.

B. GENERAL EDUCATION REQUIREMENTS

Complete the General Education Requirements for Baccalaureate Degrees listed at the beginning of this chapter.

Note: Total credits for graduation may increase unless students select at least 3 credits of upper-division courses in fulfillment of GER/CAS requirements.
C. COLLEGE OF ARTS AND SCIENCES REQUIREMENTS

Complete the College of Arts and Sciences Requirements for either a BA or BM. Performance degree, listed at the beginning of the CAS section.
(There are no additional requirements for the BM, Emphasis in Music Education degree).

D. MAJOR REQUIREMENTS: ALL MAJORS

1. Complete the following required courses:
   - MUS A131 Music Theory I 3
   - MUS A132 Music Theory II 3
   - MUS A133 Sight-Singing and Ear Training I 2
   - MUS A134 Sight-Singing and Ear Training II 2
   - MUS A154 Functional Piano I 1
   - MUS A221 History of Music I 3
   - MUS A222 History of Music II 3
   - MUS A231 Music Theory III 3
   - MUS A232 Music Theory IV 3
   - MUS A233 Sight-Singing and Ear Training III 2
   - MUS A234 Sight-Singing and Ear Training IV 2
   - MUS A280 Basic Conducting 2
   - MUS A331 Form and Analysis 3

2. All music majors enrolled in juried private music lessons must, during each semester of enrollment:
   a. Perform in at least one student recital;
   b. Stand for jury finals;
   c. Participate in an appropriate ensemble. See the ensemble requirements specific to each degree, below;
   d. Attend department-approved recitals and concerts which provide a variety of musical experiences and expand the curriculum. A minimum attendance requirement is set by the Department each semester; failure to meet this number will lower by one letter the grade assigned for private lessons.

3. Music Majors may not enroll in certain upper-division academic courses (MUS A331, A420-A424, or A431-A432, for example) or in upper-division private lessons (MUS A361) until they have passed the Piano Proficiency exam by jury.

E. ADDITIONAL MAJOR REQUIREMENTS:

BACHELOR OF ARTS, MUSIC

1. Private lessons 4
   (on your major instrument, MUS A161-A262)

2. Ensemble 10
   - Voice Majors: MUS A301B
   - Piano Majors: MUS A302B
   - Wind Majors: MUS A303B
   - Percussion Majors: MUS A303B
   - String Majors: MUS A307B
   - Guitar Major: MUS A409B

3. Master Class 4/8
   Four semesters of Master Class are required.
   Choose the class appropriate to your major instrument:
   - Wind and String Majors
     MUS A466 (8)
   - Voice, Piano and Guitar Majors
     MUS A467, A468, or A469 (16)
   - Percussion Majors
     MUS A408B (16)

4. 67 credits must be completed outside Music.

5. A total of 120 credits is required for the degree, of which 42 credits must be upper division.

ADDITIONAL MAJOR REQUIREMENTS:
BACHELOR OF MUSIC, PERFORMANCE

1. Private lessons 16
   (on your major instrument, MUS A161-A462)

2. Ensemble 16
   - Voice Majors: MUS A301B
   - Wind Majors: MUS A303B
   - Percussion Majors: MUS A303B
   - String Majors: MUS A307B
   - Piano Majors: MUS A302B (12)
      and MUS A301B or A303B or A307B (4)
   - Guitar Majors: MUS A409B (12)
      and A301B or A303B or A307B (4)

3. Chamber Ensemble 2
   Wind, Voice and String Majors only must meet a two-semester small ensemble requirement. This requirement is fulfilled by performing on your major instrument in one of these courses:
   MUS A365, A302, A313, A407, A408 or A409.
   Note: Credits completed will vary from two to four, depending upon which courses are selected.

4. Master Class 8/16
   Eight semesters of Master Class are required.
   Choose the class appropriate to your major instrument:
   - Wind and String Majors
     MUS A466 (8)
   - Voice, Piano and Guitar Majors
     MUS A467, A468, or A469 (16)
   - Percussion Majors
     MUS A408B (16)

5. Conducting 2
   - MUS A381 Choral Conducting (2)
   - MUS A382 Instrumental Conducting (2)

6. Upper-division elective credits 12
   Select from these 3-credit courses:
   MUS A420-A424 history seminars
   MUS A431 Counterpoint
   MUS A432 Orchestration

7. Students seeking a Bachelor of Music, Performance degree must complete a half recital their junior year and a full recital their senior year. Students must demonstrate in these recitals the ability to perform a program of artistic merit satisfactorily in public.

8. It is required that students select a two-semester language sequence to satisfy the CAS, BM, and PERF requirement.

9. A total of 122-130 credits is required for the degree, of which 42 credits must be upper-division.

ADDITIONAL MAJOR REQUIREMENTS:
BACHELOR OF MUSIC, EMPHASIS MUSIC EDUCATION

1. Private lessons 16
   (on your major instrument, MUS A161-A462)

2. Ensemble 16
   - Voice Majors: MUS A301B
   - Wind Majors: MUS A303B
   - Percussion Majors: MUS A303B
   - String Majors: MUS A307B
   - Piano Majors: MUS A302B (12)
      and MUS A301B or A303B or A307B (4)
   - Guitar Majors: MUS A409B (12)
      and A301B or A303B or A307B (4)

3. Chamber Ensemble 2
   Wind, Voice and String Majors only must meet a two-semester small ensemble requirement. This requirement is fulfilled by performing on your major instrument in one of these courses:
   MUS A365, A302, A313, A407, A408 or A409.
   Note: Credits completed will vary from two to four, depending upon which courses are selected.
8. Students seeking a Bachelor of Music, Emphasis Music Education degree

9. Students must take the GRE, PRAXIS I and the PRAXIS II in music for admission to the program. Admission to the program is limited. Students seeking music certification must have completed all requirements for the Bachelor of Music, Emphasis Music Education degree with a 3.0 GPA or better for admission to the post-baccalaureate program. Students majoring in another subject who wish to minor in music must complete a half recital their senior year. Students must demonstrate in this recital the ability to perform a program of artistic merit satisfactorily in public.

10. It is recommended that students select HIST A341 as a GER Social Science course.

11. A total of 128-130 credits is required for the degree of which 42 credits must be upper-division.

12. Students wanting certification in Music K-12 must complete a one-year post-baccalaureate program. The program is limited.

13. UAA’s graduate application for admission into the post-baccalaureate program must be completed either by MARCH 1 for admission to the program the following Summer or by OCTOBER 1 for admission to the program the following Spring.

14. Students seeking music certification must have completed all requirements for the Bachelor of Music, Emphasis Music Education degree with a 3.0 GPA or better for admission to the post-baccalaureate program.

15. Students must take the GRE, PRAXIS I and the PRAXIS II in music for admission to the post-baccalaureate program.

16. Students seeking certification should contact the College of Education for an application packet and a detailed description of the post-baccalaureate program.

MINOR, MUSIC

Students majoring in another subject who wish to minor in music must complete the following requirements. Nineteen credits are required for the minor, eight of which must be upper-division.

1. MUS A111, A131, or A132 6
2. MUS A121 or A221 or A222 3
3. Private Lessons
   MUS A161-A162 2
   To complete this requirement, students must successfully pass two jury exams, one at the end of each semester of study.
4. Master Class
   Choose the class appropriate to your major instrument.
   Two semesters of master class are required; credits vary.
   MUS A466, A467, A468, A469 or A408B 2/4
5. Ensemble
   Choose the ensemble appropriate to your major instrument.
   MUS A301B, A302B, A303B, A307B, or A409B 4/6

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NATURAL SCIENCES

http://biology.uaa.alaska.edu
Engineering Building (ENGR) Room 333, (907) 786-4770

Modern sciences do not stand alone. Most draw heavily upon the tenets of at least one other discipline. The Natural Sciences curriculum emphasizes the interrelationships among the sciences and allows students to obtain a strong background in two or more sciences while meeting the requirements of a single degree program. A minimum of 74 science credits is required for this major, as specified below. For individuals pursuing careers as secondary science educators, it is required that they complete 12 credits in each of the following sciences: Biology, Chemistry, Physics, Earth and Space Science.

The Natural Sciences program is administered by the Department of Biological Sciences. For further information about the Natural Sciences program, contact the Chairperson of the Department of Biological Sciences. Upon acceptance into the major, an advisor will be assigned according to the student’s declared area of emphasis.

BACHELOR OF SCIENCE, NATURAL SCIENCES

ADMISSION REQUIREMENTS

Complete the Admission to Baccalaureate Programs Requirements in Chapter 7, “Academic Standards and Regulations.”

ACADEMIC PROGRESS

In order to graduate with a B5 in Natural Sciences, all courses covered under “Major Requirements” for a B5 in Natural Sciences must be completed with a grade of “C” or better. Students who audit a course intended to meet the Natural Sciences degree requirements or who are unable to earn a grade of “C” or better in the course may repeat the course. All prerequisites for courses used to meet the Natural Sciences degree requirements must be completed with a grade of “C” or better.

GRADUATION REQUIREMENTS

Students must complete the following graduation requirements:

A. GENERAL UNIVERSITY REQUIREMENTS

Complete the General University Requirements for All Baccalaureate Degrees located at the beginning of this chapter.

B. GENERAL EDUCATION REQUIREMENTS

Complete the General Education Requirements for Baccalaureate Degrees listed at the beginning of this chapter.

C. COLLEGE OF ARTS AND SCIENCES REQUIREMENTS

Complete the College of Arts and Sciences Requirements listed at the beginning of the CAS section. It is recommended that MATH A200 or MATH A272, AS A253 or AS A307, and the Computer Programming requirements be completed in the first two years of study.

Note: Major requirements may also be used to satisfy the College of Arts and Sciences Requirements.

D. MAJOR REQUIREMENTS

Students must complete the following major requirements:

1. Complete three of the following course sequences:
   a. BIOL A115 Fundamentals of Biology I (4)
   b. BIOL A116 Fundamentals of Biology II (4)
   c. CHEM A105/L General Chemistry I (4)
   d. CHEM A106/L General Chemistry II (4)
3. Courses taken to meet the 50 credit Natural Science major degree requirement must be chosen with the approval of your advisor.

4. Submit a Program of Study signed by your advisor to Enrollment Services Office before submission to the Enrollment Services Office.

5. A total of 120 credits is required for the degree, of which 42 credits must be upper-division.

UNIVERSITY PROGRAMS, COLLEGE OF ARTS AND SCIENCES

PHILOSOPHY

http://philosophy.uaa.alaska.edu

Administration/Humanities Building (ADM), Room 254, (907) 786-4455

Philosophy is the creative and critical reflection on enduring questions concerning the nature of the world and our place in it. For example, Philosophy asks metaphysical questions about what exists, epistemic questions about what we can claim to know, and ethical questions about the nature of the good life and right action. In addition, philosophy involves the study and practice of good reasoning and clear thinking, skills that are essential to any discipline or profession.

The Philosophy Department offers a variety of courses in the central areas of philosophy that acquaint students with the rich, living traditions of the world and explore historical and contemporary issues. Departmental faculty have a wide range of philosophical interests and expertise, with a particular strength in theoretical and applied ethics.

The Philosophy Department offers several options for students interested in the study of philosophy: (1) a Bachelor of Arts in Philosophy, with a philosophy track, a law track, or an applied ethics track; (2) a Certificate of Applied Ethics; (3) a Minor in Philosophy, with a philosophy track or law track. Please read the introduction to each program below to determine which one of these options may be suitable for your particular needs.

The Philosophy Track is designed for students planning to go on to graduate school in Philosophy or other Humanities areas such as Religious Studies, Theology, or Classics. It would also be a suitable second major for those planning graduate studies in History, English, French or German literature. In general, it is ideal for students who are seeking jobs in fields where writing, critical thinking, and general liberal arts skills are in demand, or for life-long learners interested in philosophy.

The Law Track is designed for students planning on attending law school or related professional schools.

The Applied Ethics Track is designed for four types of students: (1) those who intend to pursue a graduate degree in philosophy with programs that specialize in applied ethics; (2) those interested in a strong liberal arts degree (3) those who are seeking careers in the non profit sector, public administration, helping professions, or government service; and (4) those interested in the study of practical ethics.

The Certificate in Applied Ethics is designed for students whose intended careers will be complemented by emphasis in ethics education, for example, business majors who may plan also to be ethics officers; those who intend to become professional, such as lawyers, nurses, social workers, or engineers; or those in public administration, the helping professions, government service, and nonprofits. It will also be applicable to persons presently in the workforce such as corporate ethics officers, executives, and professionals who are seeking career advancement or simply want to acquire skills and knowledge in ethical decision-making.

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University of Alaska Anchorage 2005-2006 Course Catalog
www.uaa.alaska.edu
Chapter 7, "Academic Standards and Regulations.

Complete the Admission to Baccalaureate Programs Requirements in

A. GENERAL UNIVERSITY REQUIREMENTS
Complete the General University Requirements for All Baccalaureate Degrees located at the beginning of this chapter.

B. GENERAL EDUCATION REQUIREMENTS
Complete the General Education Requirements for Baccalaureate Degrees located at the beginning of this chapter.

C. COLLEGE OF ARTS AND SCIENCES REQUIREMENTS
Complete the College of Arts and Sciences Requirements for the Bachelor of Arts listed at the beginning of the CAS section.

D. MAJOR REQUIREMENTS
1. Complete the following core courses:
   - Logical Reasoning and Argumentation:
     PHIL A101 Introduction to Logic 3
   - Foundations of Philosophy:
     PHIL A201 Introduction to Philosophy 3
     PHIL A211 History of Philosophy I 3
     PHIL A212 History of Philosophy II 3
   - Ethical Theory and Value studies:
     PHIL A301 Ethics 3

2. Choose one of the following tracks:
   Note: Courses selected may not be used in more than one track
   **Philosophy Track (21 credits)**
   Complete the following courses:
   - Applied Ethics: Complete one course from the following: 3
     - PHIL A302 Biomedical Ethics (3)
     - PHIL/ENVI A303 Environmental Ethics (3)
     - PHIL A304 Business Ethics (3)
     - PHIL A405 Professional Ethics (3)
   - Philosophical Problems: Complete two courses from the following: 6
     - PHIL A309 Philosophy of Mind (3)
     - PHIL A311 Metaphysics and Epistemology (3)
     - PHIL A421 Philosophy of the Sciences (3)
   - Topics in Philosophy: Complete one course from the following: 3
     - PHIL A313B Eastern Philosophy and Religion (3)
     - PHIL A314 Western Religion (3)
     - PHIL A415 Feminist Philosophy(3)
     - PHIL A401 Aesthetics (3)
     - PHIL A406 Philosophy of Law (3)
   - Complete the following three courses (9 credits):
     - PHIL A490 Topics in Contemporary Philosophy 3
     - PHIL A492 Seminar on an Enduring Philosopher 3
     - PHIL A498 Senior Research Project 3
   **Law Track (21 credits)**
   Complete the following courses:
   - Professional Ethics: 3
     - PHIL A405 Professional Ethics
   - Philosophical Foundations of the Law: 3
     - PHIL A406 Philosophy of Law
   - PS A332 History of Political Philosophy I: Classical 3
   - PS A333 History of Political Philosophy II: Modern 3
   - JUST A250 Development of Law 3
   - PS/JUST A343 Constitutional Law 3
   - PHIL A498 Senior Research Project 3
   **Applied Ethics Track (18 credits)**
   Complete the following courses:
   - Professional Ethics: 3
     - PHIL A405 Professional Ethics
   - Applied Ethics Core: Complete two from the following: 6
     - PHIL A302 Biomedical Ethics (3)
     - PHIL/ENVI A303 Environmental Ethics (3)
     - PHIL A304 Business Ethics (3)
     - PHIL A406 Philosophy of Law (3)
     - PHIL A415 Feminist Philosophy (3)
   - Complete the following three courses (9 credits):
     - PHIL A490 Topics in Contemporary Philosophy 3
     - PHIL A495 Service Learning in Applied Ethics 3
     - PHIL A498 Senior Research Project 3
   3. A total of 120 credits is required for the degree of which 42 credits must be upper-division.

**Certificate, Applied Ethics**

A student must satisfy the Admission to Certificate Requirements in Chapter 7, "Academic Standards and Regulations."

**ADMISSION REQUIREMENTS**

**GRADUATION REQUIREMENTS**

1. Complete the following requirements:
   - Written Communication Skills. Complete two courses from the GER requirements for written communication skills (6 credits).
   - Oral Communication Skills. Complete one course from the GER requirements for oral communication skills (3 credits).
   - Quantitative Skills: Complete one course from the GER requirements for quantitative skills (3 credits).

Chapter 10 Page 126 University of Alaska Anchorage 2005-2006 Course Catalog www.uaa.alaska.edu
Critical Reasoning Skills: Complete the following course:
PHIL A101 Introduction to Logic 3

Ethical Theory: Complete the following course:
PHIL A301 Ethics 3

Applied Ethics: Complete two courses from the following:
PHIL A302 Biomedical Ethics (3)
PHIL/ENVI A303 Environmental Ethics (3)
PHIL A304 Business Ethics (3)

Professional Ethics: Complete one course from the following:
PHIL A405 Professional Ethics (3)
BA A488 The Environment of Business (3)
E/Q A610 Environmental Ethics for Engineers (3)
HUMS A412 Ethical Issues in Human Services Practice (3)
IPC A440 The Press: Issues and Answers (3)
PADM A618 Public Accountability, Ethics and Law (3)
PSY A611 Ethics and Professional Practice (3)

Note: Graduate courses taken to satisfy this requirement cannot also be counted towards a graduate degree in that program.

Service Learning: Complete the following course:
PHIL A495 Service Learning in Applied Ethics 3

2. A total of 30 credits is required for the certificate.

MINOR, PHILOSOPHY

Students majoring in another subject who wish to minor in Philosophy must complete the following requirements. A total of 18 credits is required for the minor, 6 of which must be upper-division.

Choose one of the following tracks (18 credits):
(Courses selected may not be used in more than one track.)

**Philosophy Track**
Complete the following courses:
Logical Reasoning and Argumentation:
PHIL A101 Introduction to Logic 3
Foundations of Philosophy:
PHIL A201 Introduction to Philosophy 3
PHIL A211 History of Philosophy I 3
PHIL A212 History of Philosophy II 3
Complete two courses from the following:
PHIL A301 Ethics (3)
PHIL A302 Biomedical Ethics (3)
PHIL/ENVI A303 Environmental Ethics (3)
PHIL A304 Business Ethics (3)
PHIL A309 Philosophy of Mind (3)
PHIL A311 Metaphysics and Epistemology (3)
PHIL A313B Eastern Philosophy and Religion (3)
PHIL A314 Western Religion (3)
PHIL A401 Aesthetics (3)
PHIL A405 Professional Ethics (3)
PHIL A406 Philosophy of Law (3)
PHIL A415 Feminist Philosophy (3)
PHIL A421 Philosophy of the Sciences (3)

**Law Track**
Complete the following courses:
Logical Reasoning and Argumentation:
PHIL A101 Introduction to Logic 3
Foundations of Philosophy:
PHIL A201 Introduction to Philosophy 3
PHIL A211 History of Philosophy I 3
PHIL A212 History of Philosophy II 3
Ethics and Values:
PHIL A301 Ethics 3
Philosophical Foundations of the Law:
PHIL A406 Philosophy of Law 3

FACULTY

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PHYSICS

Engineering Building (ENGR), Room 333D, (907) 786-1238

Physics is the universal science. It is the rational development of experiments, observations and theories to explain the fundamental structure of the universe. Physicists study everything from the smallest subatomic particle to the entire Universe.

The laws that physicists have discovered form the basis for understanding the world and also for making the devices and machines that we see and use every day.

The Physics Minor will provide a valuable option especially to Engineering, Math/Computer Science, Chemistry, Biology, or Geology majors. It is widely known that a strong physics background increases a graduate's employability.

MINOR, PHYSICS

Students majoring in another subject who wish to minor in Physics must complete the following requirements. A total of 18 credits is required for the minor.

Complete the following courses:
PHYS A211 General Physics I 3
PHYS A211L General Physics I Laboratory 1
PHYS A212 General Physics II 3
PHYS A212L General Physics II Laboratory 1
PHYS A303 Modern Physics 3
Upper-division Physics electives. 7

FACULTY

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Katherine Rawlins, Assistant Professor

POLITICAL SCIENCE

http://polsci.uaa.alaska.edu
Social Sciences Building (SSB), Room 367, (907) 786-4897

In its oldest definition, political science was called the master science. More modern definitions are less comprehensive, but of the social sciences, political science has perhaps the least definite boundaries and the widest concerns. Consequently, political science covers many different subjects, uses several diverse methods, and appeals to a variety of students.

Students come to political science because they are interested in politics: some of them with an eye to a political career, some with a scholarly intent, and many wishing to know more about this central, inescapable human concern. The Department of Political Science aims to make all students aware and critical of their first opinions (since human beings are at their most opinionated in politics); to open up the possibilities of politics; to reveal the permanent political problems; to impart an intellectual discipline; and to supply a guide for choice.
Political Science is divided into five areas: Comparative Politics, International Relations, Political Philosophy, American Politics, and Political Behavior. Majors in Political Science are required to take at least one course in each of these areas, to specialize in one of them, and to complete introductory courses in political science.

The Department also offers minors in Political Science and Public Administration. Students selecting the Political Science minor must complete two introductory courses and four additional upper-division Political Science electives. Students selecting the Public Administration minor must complete two introductory courses; courses in public administration, public policy, and organization theory; and one additional starred course in Political Science.

The Department welcomes all students who want to learn more about politics. It reserves its honors for majors who earn qualifying marks both in a senior seminar and on a comprehensive examination.

HONORS IN POLITICAL SCIENCE

Students majoring in Political Science are eligible to graduate with Departmental Honors if they satisfy all of the following requirements:
1. Complete the following core courses:
   - PS A101 Introduction to American Government § 3
   - PS A102 Introduction to American Government § 3
   - PS A301 Comparative Political Economy 3
   - PS A330 The American Political Tradition 3
   - PS/SOC A361 Social Science Research Methods 3
   - PS A492 Senior Seminar in Politics 3
   - PS A490 Studies in Politics (1-3)
   - PS A495 Internship in Political Science (1-3)

Note: Courses which may be used to meet GER and/or CAS BA requirements are designated by a section mark ($) after their titles.

2. Maintain a grade point average of 3.50 or above in courses applicable to the degree requirements.
3. Complete PS A492 Senior Seminar in Politics in the final spring term of study with an honor grade (A or B).
4. Receive an honors score (based upon criteria established by the Department) on a comprehensive examination for majors.

Note: Departmental Honors are awarded by the faculty in Political Science.

BACHELOR OF ARTS, POLITICAL SCIENCE

ADMISSION REQUIREMENTS

Complete the Admission to Baccalaureate Programs Requirements in Chapter 7, “Academic Standards and Regulations.”

GRADUATION REQUIREMENTS

Students must complete the following graduation requirements:

A. GENERAL UNIVERSITY REQUIREMENTS

Complete the General University Requirements for All Baccalaureate Degrees located at the beginning of this chapter.

B. GENERAL EDUCATION REQUIREMENTS

Complete the General Education Requirements for Baccalaureate Degrees listed at the beginning of this chapter.

C. COLLEGE OF ARTS AND SCIENCES REQUIREMENTS

Complete the College of Arts and Sciences Requirements listed at the beginning of the CAS section.

D. MAJOR REQUIREMENTS

Note: Courses which may be used to meet GER and/or CAS BA requirements are designated by a section mark ($) after their titles.

1. Complete the following core courses:
   - PS A101 Introduction to American Government § 3
   - PS A102 Introduction to American Government § 3
   - PS A301 Comparative Political Economy 3
   - PS A330 The American Political Tradition 3
   - PS/SOC A361 Social Science Research Methods 3
   - PS A492 Senior Seminar in Politics 3

2. Complete one starred (*) course from each of the five areas below:
   - Comparative Politics:
     - PS A311 Comparative Politics § (3)
     - PS A312 Comparative Politics: Case Studies (3)
     - PS/AKNS A411 Tribes, Nations, and Peoples (3)
     - PS A490 Studies in Politics (1-3)
   - International Relations:
     - PS A321 International Relations § (3)
     - PS A322 United States Foreign Policy (3)
     - PS A324 Model United Nations (1/3)
     - PS A424 International Law and Organization (3)
     - PS A490 Studies in Politics (1-3)
   - Political Philosophy:
     - PS A331 Political Philosophy § (3)
     - PS A332 History of Political Philosophy I: Classical § (3)
     - PS A333 History of Political Philosophy II: Modern § (3)
     - PS A432 Contemporary Political Theory (3)
     - PS A490 Studies in Politics (1-3)
   - American Politics:
     - PS A341 Congress (3)
     - PS A342 The American Presidency (3)
     - PS/JUST A343 Constitutional Law (3)
     - PS A344 State and Local Politics (3)
     - PS A345 Alaska Government and Politics (3)
     - PS/AKNS A346 Alaska Native Politics (3)
     - PS A347 Public Administration (3)
     - PS A348 Public Policy (3)
     - PS A490 Studies in Politics (1-3)
   - Political Behavior:
     - PS/SOC A351 Political Sociology § (3)
     - PS A353 Political Behavior, Participation, and Democracy (3)
     - PS A453 Organization Theory (3)
     - PS A490 Studies in Politics (1-3)
     - PS A495 Internship in Political Science (1-3)

3. Complete 6 credits in additional upper-division Political Science courses from one of the five areas listed above. PS A490 may be repeated with different subtitle.
4. A total of 120 credits is required for the degree, of which 42 credits must be upper-division, and a minimum of 39 Political Science credits.

MINORS

The Department of Political Science offers two minors, one in Political Science and one in Public Administration. A minor requires 18 credits earned according to the following rules.

Note: Courses required for Political Science minors which may be used to meet General Education Requirements and/or College of Arts and Sciences BA requirements are designated by an octothorp (#) after their titles.

POLITICAL SCIENCE MINOR

Introductory courses:
   - PS A101 Introduction to American Government # 3
   - PS A102 Introduction to Political Science # 3

Upper-division Political Science courses 12

PUBLIC ADMINISTRATION MINOR

Introductory courses:
   - PS A101 Introduction to American Government # 3
   - PS A102 Introduction to Political Science # 3

Additional courses, as follows:
   - PS A347 Public Administration 3
   - PS A348 Public Policy 3
   - PS A453 Organization Theory 3

Note: Political Science majors who earn a minor in Public Administration may not count upper-division courses required for the minor (i.e., PS A347, PS A348, or PS A453) toward the major requirements in item 3 above for additional upper-division credits in Political Science.
The baccalaureate program in psychology offers students psychological information (theory and application), and skills for living more effectively, for gaining or advancing in employment, and admission to higher levels of education. Both the Bachelor of Arts and the Bachelor of Science degrees are available.

The psychology major requirements are flexible and are designed to serve a variety of career goals. The student majoring in psychology pursuing a general interest in human nature will probably take a different sequence of psychology courses than a student who is preparing for advanced work in psychology. All students are encouraged to plan undergraduate work carefully. Early and frequent consultation with an advisor is helpful in selecting courses which will provide a solid foundation in psychology and a good general education.

This nontranscripted certificate recognizes students who complete five courses designed to provide entry-level knowledge and skills appropriate for a variety of baccalaureate-level jobs in community mental health settings. Taken together, the classes introduce students to communication skills, consumer empowerment, assessment, professional networking, service facilitation, behavior change processes, advocacy, crisis intervention, organizational settings, documentation, ethics, and professional behavior. Mental health problems common to Alaska receive special emphasis. Two semesters of community placement allow skills to be practiced in mental health settings.

1. Complete these required core courses:
   - PSY A111 General Psychology 3
   - PSY A150 Life Span Development 3
   - PSY A260 Statistics for Psychology 3
   - PSY A261 Research Methods in Psychology 4
   - PSY A345 Abnormal Psychology 3
   - PSY A355 Learning and Cognition 4
   - PSY A368 Personality 3
   - PSY A370 Biological Psychology 3
   - PSY A375 Social Psychology 3
   - PSY A377 Community Psychology 3
   - PSY A427 Advanced Field Experience in Psychology 3
   - PSY A445 Strategies of Behavior Change 3
   - PSY A455 Mental Health Service in Alaska 3
   - PSY A499 Senior Thesis (3)

2. A total of 15 credits is required for the nontranscripted departmental certificate of completion.

3. Take an additional 9 credits of psychology, 6 of which must be upper-division.
   - PSY A412 Foundations of Modern Psychology (3)
   - PSY A420 Conducting Research in Psychology (3)
   - PSY A427 Field Experience in Psychology (3)
   - PSY A499 Senior Thesis (3)

4. All psychology majors must take a standardized test of knowledge of psychology approved by the Psychology Department. There is no minimum score required for graduation.

5. A total of 120 credits is required for the degree of which 42 credits must be upper-division.
MINOR, PSYCHOLOGY

Students majoring in another subject who wish to minor in Psychology must complete a total of 18 credits of Psychology, of which 6 must be upper division.

Requirements include the following:
1. PSY A111 General Psychology
2. Three additional courses required in the core above (see list D.1).
3. Two additional Psychology courses

SOCIOLOGY

http://sociology.uaa.alaska.edu
Social Sciences Building (SSB), Room 372, (907) 786-1714

Sociology is the study of social systems—the way they are formed, sustained, and changed. It is concerned with processes which shape individual communication, world views and behavior. The curriculum in sociology is meant to provide the student with the following: a contribution to a liberal arts education, preparation for graduate training in sociology, or preparation for applied sociology in the world of work. Within the major, students can select a specialization in Family and Life Cycles, Community and Change, or applied sociology in the world of work. Within the major, students can select a specialization in Family and Life Cycles, Community and Change, or General Sociology with a focus on liberal arts. Within the Family and Community specializations, majors must select either an academic or applied focus.

HONORS IN SOCIOLOGY

Students majoring in Sociology are eligible to graduate with Departmental Honors if they satisfy all of the following:
1. Meet all the requirements for a B.A. or B.S. degree in Sociology.
2. Maintain a grade point average of 3.50 or above in all Sociology courses.
3. Complete SOC A488 (Capstone Seminar) with a grade of “A.”
4. Attain a score at or above the 90th percentile on the ETS Major Field Test.
5. Students wishing to graduate with Departmental Honors must notify the Department Honors Committee, in writing, on or before the date they file their Application for Graduation with the Enrollment Services Office.

BACHELOR OF ARTS, SOCIOLOGY

BACHELOR OF SCIENCE, SOCIOLOGY

ADMISION REQUIREMENTS

Complete the Admission to Baccalaureate Programs Requirements in Chapter 7, “Academic Standards and Regulations.”

GRADUATION REQUIREMENTS

Students must complete the following graduation requirements:

A. GENERAL UNIVERSITY REQUIREMENTS

Complete the General University Requirements for All Baccalaureate Degrees listed at the beginning of this chapter.

B. GENERAL EDUCATION REQUIREMENTS

Complete the General Education Requirements for Baccalaureate Degrees listed at the beginning of this chapter.

C. COLLEGE OF ARTS AND SCIENCES REQUIREMENTS

Complete the College of Arts and Sciences Requirements for either a BA or BS degree listed at the beginning of the CAS section.

D. MAJOR REQUIREMENTS

1. Complete Sociology core courses:
   - SOC A101 Introduction to Sociology 3
   - SOC A307 Demography 3
   - SOC/PS A361 Social Science Research Methods 3
   - SOC A402 Theories of Sociology 3
   - SOC/PSY A453 Application of Statistics to the Social Sciences 4
   - SOC A488 Capstone Seminar 3
   2. Complete one of the following options:
   Note: Courses may not be applied to more than one option.

   Option I
   Family and Life Cycles (18 credits):
   - For majors specializing in small groups and family systems:
     a. Complete two general background courses:
        - SOC A363 Social Stratification (3)
        - SOC A375 Social Psychology (3)
        - SOC A405 Social Change (3)
     b. Complete two core area courses:
        - SOC A242 An Introduction to Marriage, Family and Intimate Relationships (3)
        - SOC A342 Sexual, Marital and Family Lifestyles (3)
        - SOC A246 Adolescence (3)
        - SOC A310 Sociology of Aging (3)
        - SOC A377 Men, Women and Change (3)
        - SOC A452 Violence in Intimate Relationships (3)
   c. Select either the Academic Emphasis or the Applied Emphasis:
     1. For the Academic Emphasis, complete two additional courses from item “b” core area courses (above).
     2. For the Applied Emphasis, complete two courses from the following application courses:
        - SOC A352 Women and Social Action (3)
        - SOC/JUST A454 Evaluation Research and Change (3)
        - SOC A487 Sociology Practicum (3)
        (May be repeated)

   Option II
   Community and Change (18 credits):
   - For majors specializing in rural community and urban systems.
     a. Complete two general background courses:
        - SOC A202 The Social Organization of Society (3)
        - SOC A343 Sociology of Deviant Behavior (5)
        - SOC A363 Social Stratification (3)
        - SOC/HS A370 Medical Sociology (3)
        - SOC A404 Environmental Sociology (3)
        - SOC A405 Social Change (3)
     b. Complete two core area courses:
        - SOC A222 Small and Rural Communities (3)
        - SOC A309 Urban Sociology (3)
        - SOC A373 Strategies of Community Change (3)
        - SOC/SWK A407 Formal Organizations (3)
        - SOC A408 Sociology of Race and Ethnicity (3)
Complete three courses from the following: 9

1. For the Academic Emphasis, complete two additional courses in item “b” core area courses (above).
2. For the Applied Emphasis, complete two courses from the following application courses:
   - SOC A352 Women and Social Action (3)
   - SOC/JUST A454 Evaluation Research and Change (3)
   - SOC A487 Sociology Practicum (3)

(May be repeated)

Option III
General Sociology (18 credits):
For majors desiring a general sociology degree.

1. Complete three courses from the following: 9
   - SOC A201 Social Problems and Solutions (3)
   - SOC A343 Sociology of Deviant Behavior (3)
   - SOC A347 Sociology of Religion (3)
   - SOC/PS A351 Political Sociology (3)
   - SOC A404 Environmental Sociology (3)

2. Complete an additional three courses from the following: 9
   - SOC A363 Social Stratification (3)
   - SOC/HS A370 Medical Sociology (3)
   - SOC A375 Social Psychology (3)
   - SOC A387 Gay and Lesbian Lifestyles (3)
   - SOC A405 Social Change (3)
   - SOC A408 Sociology of Race and Ethnicity (3)

3. A total of 120 credits is required for the degree, of which 42 credits must be upper-division.

MINOR, SOCIOLOGY
Students majoring in another subject who wish to minor in Sociology must complete the following requirements. A total of 21 credits is required for the minor.

- SOC A101 Introduction to Sociology 3
- SOC/Ps A361 Social Science Research Methods 3
- SOC A402 Theories of Sociology 3
- Upper-division Sociology electives 6

Sociology electives, any level 6

Upper-division Sociology electives may be repeated if at least one year separates the repetitions.

FACULTY
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THEATRE
http://theatre.uaa.alaska.edu
Fine Arts Building (ARTS), Room 332, (907) 786-1792

The Department of Theatre and Dance offers a well-rounded liberal arts approach in its curriculum. Theatre courses cover all the basic areas of theatrical endeavor, including acting, voice, dialects, movement for the actor, directing, stagecraft, scene design, lighting, costuming, makeup, dramatic literature, theatre history, dramatic theory and criticism, and play writing. The dance program offers courses in dance techniques, choreography, improvisation, dance history and dance research methods.

Theatre is the art of giving life in performance to dramatic literature. Production is at the very center of our award-winning theatre and dance program. Each season UAA Theatre produces four plays on its “modified thrust” Mainstage, and as many as twenty one-act or full-length plays in the student-directed Second Stage program. In some years, one of our productions is chosen to tour rural Alaska. The plays are cast at open auditions and more than 100 majors, non-majors and members of the community are involved in our season each year. All Theatre majors are required to participate in Mainstage productions and/or related departmental activities.

Dance as performance and as theoretical discourse from a multidisciplinary and multicultural perspective is primary in the dance program. As in theatre, production is also at the heart of the program, with the UAADance Ensemble as the core performing group. Each year we feature two dance productions either on Mainstage and/or in the Second Stage black box theatre inclusive of the Dance Ensemble’s annual “Voices” concert and our “Expanding the Stage” offering. “Expanding the Stage” is dedicated to the blurring of the boundaries between dance, theatre, and the visual arts. Guest artist residencies are a staple of the program, and other frequent performances include the UAADance Week. All dance minors, or theatre majors choosing the dance emphasis, are required to participate in “Voices” and/or related departmental activities.

HONORS IN THEATRE
Students majoring in Theatre are eligible to graduate with Departmental Honors if they satisfy all of the following requirements:

1. Meet the requirements for a BA degree in Theatre.
2. Maintain a grade point average of 3.50 or above in Theatre courses applicable to the major requirements.
3. Complete Individual Research (THR A498) with a minimum grade of “B” prior to enrolling in THR A499 Senior Thesis.
4. Complete THR A499 Senior Thesis with a minimum grade of “B.” The thesis project must be approved in writing in advance by the department faculty and be completed in the senior year. The project must culminate in a public performance or presentation.
5. Students intending to graduate with Departmental Honors must notify the Department in writing at least one year prior to filing their Application for Graduation with Enrollment Services.

BACHELOR OF ARTS, THEATRE

ADMISSION REQUIREMENTS: ALL MAJORS
Complete the Admission to Baccalaureate Programs Requirements in Chapter 7, “Academic Standards and Regulations.”

GRADUATION REQUIREMENTS
Students must complete the following graduation requirements:

A. GENERAL UNIVERSITY REQUIREMENTS
Complete the General University Requirements for All Baccalaureate Degrees listed at the beginning of this chapter.

B. GENERAL EDUCATION REQUIREMENTS
Complete the General Education Requirements for Baccalaureate Degrees listed at the beginning of this chapter.

C. COLLEGE OF ARTS AND SCIENCES REQUIREMENTS
Complete the College of Arts and Sciences Requirements listed at the beginning of the CAS section.

D. MAJOR REQUIREMENTS
1. Complete the following required core courses:
   - THR A121 Acting I 3
   - THR A131 Theatrical Production Techniques 3
   - THR A221 Acting II: Movement for Actors 3
   - THR A295 Theatre Practicum: Technical 2
   - THR A257 Costume Design and Construction I 3
2. Complete one of the following Design Area courses:
   - THR A347 Lighting Design (3)
   - THR A357 Costume Design and Construction II (3)

3. Complete one of the following Options:

   **Theatre Option: (18 credits)**
   
   Complete the following required courses:
   - THR A111 Introduction to Theatre 3
   - THR A311 Representative Plays I (3) 3
   - THR A312 Representative Plays II (3)

   OR
   - THR A411 History of the Theatre I (3) 3
   - THR A412 History of the Theatre II (3) 3

   Complete two of the following Performance Area courses:
   - THR A315 Playwriting Workshop (3)
   - THR A321 Acting III: Scene Study (3)
   - THR A324 Voice of the Actor
   - THR A325 Theatre Speech (3)
   - THR A328 Acting Shakespeare (3)
   - THR A329 Combat for the Stage (3)
   - THR A413 Dramatic Theory and Criticism (3)
   - THR A435 Directing II (3)

   **Dance Option: (20 credits)**
   
   Complete the following required courses:
   - Any DNCE A100 Level Technique Class 2
   - DNCE A170 Dance Appreciation 3
   - DNCE A185 Design for Dance 3
   - DNCE A262 Theory and Improvisation 2
   - DNCE A361 Approaches to Dance Composition 3

   Complete 7 credits from the following Performance Area Courses:
   - DNCE A101 Fundamentals of Ballet I (2)
   - DNCE A121 Fundamentals of Modern Dance I (2)
   - DNCE A124 Dance for Musical Theatre I (2)
   - DNCE A131 Fundamentals of Jazz I (2)
   - DNCE A145 Dances of the West African Diaspora I (2)
   - DNCE A146 Introduction to Alaska Native Dance (1-2)
   - DNCE A151 Beginning Tap Dance I (1)
   - DNCE A205 Fundamentals of Ballet II (2)
   - DNCE A223 Fund of Modern II (2)
   - DNCE A224 Dance for Musical Theatre II (2)
   - DNCE A234 Fund of Jazz II (2)
   - DNCE A245 Dances of the West African Diaspora II (2)
   - DNCE A321 Intermediate Modern I (2)
   - DNCE A322 Intermediate Modern II (2)
   - DNCE A360 Contemporary Techniques, Composition and Repertory (1)
   - DNCE A365 Dance Repertory and Performance (2)
   - DNCE A465 Advanced Performance and Choreographic Workshop (3)

   **MINOR, THEATRE**

   Students majoring in another subject who wish to minor in Theatre must complete the following requirements. A total of 18 credits is required for the minor.

   - THR A111 Introduction to Theatre 3
   - THR A121 Acting I 3
   - THR A141 Stagecraft I 3
   - THR A311 Representative Plays I (3) 3
   - THR A312 Representative Plays II (3)
   - THR A411 History of the Theatre I (3) 3
   - THR A412 History of the Theatre II (3)
   - Theatre electives 3

   **MINOR, DANCE**

   Students majoring in another subject who wish to minor in Dance must complete the following requirements. A total of 18 credits is required for the minor.

   - DNCE A170 Dance Appreciation 3
   - DNCE A262 Theory and Improvisation 2
   - DNCE A361 Approaches to Dance Composition 3
   - DNCE A370 Dance Studies 3
   - DNCE A101 Fundamentals of Ballet I (2)
   - DNCE A121 Fundamentals of Modern Dance I (2)
   - DNCE A124 Dance for Musical Theatre I (2)
   - DNCE A131 Fundamentals of Jazz I (2)
   - DNCE A145 Dances of the West African Diaspora I (2)
   - DNCE A146 Introduction to Alaska Native Dance (1-2)
   - DNCE A151 Beginning Tap Dance I (1)
   - DNCE A205 Fundamentals of Ballet II (2)
   - DNCE A223 Fund of Modern II (2)
   - DNCE A224 Dance for Musical Theatre II (2)
   - DNCE A234 Fund of Jazz II (2)
   - DNCE A245 Dances of the West African Diaspora II (2)
   - DNCE A321 Intermediate Modern I (2)
   - DNCE A322 Intermediate Modern II (2)
   - DNCE A360 Contemporary Techniques, Composition and Repertory (1)
   - DNCE A365 Dance Repertory and Performance (2)
   - DNCE A465 Advanced Performance and Choreographic Workshop (3)

   **FACULTY**

   Tom Skore, Professor/Chair, TSKORE@ptialaska.net
   Frank Bebey, Associate Professor
   Jill Crosby, Associate Professor, AFJAF@uaa.alaska.edu
   David Edgecombe, Professor, AFDPE@uaa.alaska.edu
   Fran Lautenberger, Professor, AFFEL1@uaa.alaska.edu

   A total of 120 credits is required for the degree, of which 42 credits must be upper-division.
The interdisciplinary Women's Studies minor offers students the opportunity to select courses from a variety of academic disciplines. Women's Studies courses are planned to foster open, vigorous inquiry about women, to challenge curricula in which women are absent or peripheral, to question cultural assumptions in light of new information, and to create a supportive environment for those interested in studying women.

MINOR, WOMEN’S STUDIES

Students majoring in another subject who wish to minor in Women's Studies must complete the following requirements. A total of 18 credits are required for the minor, of which 9 must be upper-division.

1. Complete these required courses:
   - WS A200 Introduction to Women's Studies 3
   - WS A400 Feminist Theory 3
   - WS A401 Seminar in Women's Studies 3

2. Complete 9 credits of pre-approved electives.
   You must select electives from at least two different disciplines (as defined by prefix). At least one elective must be upper-division (300-level or higher). Relevant courses not listed as approved electives may apply with the approval of Women's Studies Chair.
   - ANTH A270 Cross-Cultural Perspectives on Women 3
   - CWLA A260G Women's Writing Workshop 3
   - CWLA A461 Writing and Gender 3
   - ENGL A403 Topics in Autobiography 3
   - ENGL A404 Topics in Women's Literature 3
   - HIST A381 American Women's History to 1870 3
   - HIST A382 American Women's History Since 1870 3
   - HIST/RUSS A384 Russian Women 3
   - HUMS A350 Men and Masculinity 3
   - PSY A313 Psychology of Women 3
   - SOC A242 An Introduction to Marriage, Family and Intimate Relationships 3
   - SOC A342 Sexual, Marital and Family Lifestyles 3
   - SOC A377 Men, Women and Change 3
   - SOC A352 Women and Social Action 3
   - SOC A452 Violence in Intimate Relationships 3
   - WS A401 Seminar in Women's Studies 3

*WS A401 must be taken as a 3 credit course to fulfill the core. It may be taken a second time with a change of subtitle as an elective.

**Counts for Women's Studies Minor only when focus is on Women's Autobiography. Taught every other year with this focus.

Note: Other courses may apply to the minor with approval of Women's Studies Chair.

FACULTY

Sharon Araji, Professor/Chair, AFSK1@uaa.alaska.edu
ACCOUNTING

http://www.cbpp.uaa.alaska.edu
Business Education Building (BEB), Room 309, (907) 786-4100

The Department of Accounting offers two programs: an Associate of Applied Science (AAS) degree with a major in Accounting and the Bachelor of Business Administration (BBA) degree with a major in Accounting. The programs are designed to prepare students for a career in business, government, or other types of organizations. BBA graduates will generally pursue professional accounting careers while AAS graduates will be qualified for vocationally oriented accounting positions. The Department of Accounting is also committed to enhancing the lifelong learning opportunities for responsible citizenship and personal satisfaction where accounting and business dimensions are critical ingredients. The AAS degree in Accounting is available at UAA, Kenai Peninsula College, Kodiak, and Matanuska-Susitna College campuses.

ASSOCIATE OF APPLIED SCIENCE, ACCOUNTING

ADMISSION REQUIREMENTS
Satisfy the Admission to Certificate and Associate Degree Programs Requirements in Chapter 7, “Academic Standards and Regulations.”

GENERAL UNIVERSITY REQUIREMENTS

1. Complete the General University Requirements for Associate Degrees located at the beginning of this chapter.
2. Complete the Associate of Applied Science General Degree Requirements (15 credits) located at the beginning of this chapter. To provide maximum transferability to the BBA in Accounting, it is recommended that students consider the Bachelor of Business Administration General Education Requirements and business core requirements when selecting courses to fulfill the Associate of Applied Science general requirements and business electives.

MAJOR REQUIREMENTS

1. Complete the following required courses:
   - ACCT A101 Principles of Financial Accounting I 3
   - ACCT A102 Principles of Financial Accounting II 3
   - ACCT A202 Principles of Managerial Accounting 3
   - ACCT A210 Income Tax Preparation 3
   - ACCT A222 Introduction to Computers and Accounting 3
   - ACCT A223 Accounting for Payroll, Receivables and Payables 3
   - ACCT A230 Financial Statement Preparation and Presentation 3
   - BA A151 Introduction to Business 3
   - BA/JUST A241 Business Law I 3
   - CIS A110 Computer Concepts in Business 3
   - ECON A201 Principles of Macroeconomics 3

2. Complete 12 credits of electives. Students may choose any course at the 100-level or above in ACCT, BA, CIS, ECON, or LOG but may not use more than 6 credits from one discipline.
3. A total of 60 credits is required for the degree.

BACHELOR OF BUSINESS ADMINISTRATION, ACCOUNTING

ADMISSION REQUIREMENTS

Complete the Admission to Baccalaureate Programs Requirements in Chapter 7, “Academic Standards and Regulations.”

ADMISSION REQUIREMENTS TO UPPER-DIVISION COURSES

1. Completion of at least 39-40 credits with a cumulative GPA of 2.25 or higher.
2. Completion of each of the following courses with a grade of “C” or better:
   - ACCT A201 and A202 6
   - BA A273 3
   - CIS A110 3
   - Oral Communication Skills GER 3
   - ECON A201 and A202 6
   - ENGL A111 and A212 6
   - MATH A107 or A172 3-4
3. Completion of any combination of at least 9 credits in the following General Education Disciplinary Areas:
   - Fine Arts
   - Humanities
   - Natural Sciences

Admission to Upper-division Status:
BBA students in Accounting, who do not meet the above standards may not take upper-division courses in ACCT, BA, CIS, or LOG. Other students who meet course prerequisites may take up to fifteen (15) upper-division ACCT, BA, CIS and LOG credits without being formally admitted to a BBA program. All students must apply for admission to a BBA program before accumulating more than fifteen such credits. Please contact the Student Information Office for assistance in applying for admission to upper-division standing within the College of Business and Public Policy.

Conditional Admission to Upper-division Status:
A student classified as being conditionally admitted to upper-division status may take upper-division ACCT, BA, CIS, and LOG courses for one semester only, while completing lower-division deficiencies.

GRADUATION REQUIREMENTS

Students must complete the following graduation requirements:

A. GENERAL UNIVERSITY REQUIREMENTS
   Complete the General University Requirements for All Baccalaureate Degrees listed at the beginning of this chapter.

B. GENERAL EDUCATION REQUIREMENTS
   Complete the General Education Requirements for Baccalaureate Degrees listed at the beginning of this chapter.

C. COLLEGE OF BUSINESS AND PUBLIC POLICY REQUIREMENTS FOR ACCOUNTING MAJORS
   Students earning a BBA degree must complete at least 50% of their required business credits at the University of Alaska Anchorage. All ACCT, BA, CIS, ECON, LGOP, and LOG courses are considered business credits for the purpose of this requirement.

1. Complete the BBA core requirements:
   The following courses must be completed with a “C” or better.
   - ACCT A201 Principles of Financial Accounting 3
   - ACCT A202 Principles of Managerial Accounting 3
   - BA A273 Introduction to Statistics for Business and Economics 3
   - CIS A110 Computer Concepts in Business 3
   - ECON A201 Principles of Macroeconomics 3
   - ECON A202 Principles of Macroeconomics 3
   - ENGL A212 Technical Writing 3
   - MATH A107 College Algebra (4) or
   - MATH A172 Applied Finite Mathematics (3) 3-4
   - MATH A200 Calculus I (4) or
   - MATH A272 Applied Calculus (3) 3-4
1. Complete the following requirements with a “C” or better:
   - ACCT A201 Principles of Financial Accounting 3
   - ACCT A202 Principles of Managerial Accounting 3
   - Upper-division Accounting electives 12

   *Not available to BBA Accounting majors.

**MINOR, ACCOUNTING**

Students who wish to minor in Accounting, must complete the following requirements. A total of 18 credits is required for the minor.

   - ACCT A201 Principles of Financial Accounting 3
   - ACCT A202 Principles of Managerial Accounting 3

**FACULTY**

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**BUSINESS ADMINISTRATION**

http://www.cbpp.uaa.alaska.edu/degrees/degrees.asp
Business Education Building (BEB), Room 309, (907) 786-4100

The Department of Business Administration offers a Certificate in Small Business Management at the Kenai campus, an AAS degree in General Business at the Kenai and Kodiak campuses, an AAS degree in Small Business Administration at the Anchorage, Kenai, and Mat-Su campuses as well as a BBA degree in Economics, Finance, Global Logistics Management, Management, and Marketing on the Anchorage campus. A Business Administration minor is also available on the Anchorage campus. These are professional programs designed to meet the challenges of a dynamic and changing business environment. Graduates in business find job opportunities in Alaska, throughout the United States and in many foreign countries.

The BBA in Finance prepares students for entry-level financial management jobs in corporations, nonprofit organizations and financial institutions; financial analyst with brokerage and money management firms; financial planning services; real estate professional, and financial consultants to small business. Furthermore, it prepares a student for graduate studies in finance.

Students will gain knowledge in the concepts of financial planning, analysis and management in a global context; the functions, structures, delivery systems, efficiency and performance of financial markets and institutions; the concepts, techniques and strategies of investment in financial and real assets; the creation of values for the stockbrokers, stakeholders and society; and the value of financial securities and the enterprise.

The BBA in Management prepares students for entry-level general management jobs in corporations, nonprofit organizations and government; personnel and benefits management; recruitment and career planning services; conflict resolution and arbitration; and management consulting to small business. Furthermore, it prepares a student for graduate studies in management.

Students will gain knowledge in the concepts of organizational theory, design and development in a global context; the study of human behaviors and interactions within an organization; the management of human resources of an organization; the negotiations, conflict resolutions and arbitrations; the formulation of strategies for the management of total organization in an ever-changing environment; and the value of ethics and social responsibility.

The BBA in Marketing prepares students for entry-level marketing jobs in corporations and retail organizations; promotion and advertising professionals purchasing and distribution professionals; market research and sales forecasting; and marketing consulting to small businesses. Furthermore, it prepares students for graduate studies in marketing.

Students will gain knowledge in the principles of marketing and its essential role in business and society; the process of planning and executing the conception, pricing, promotion, & distribution of ideas, goods, & services in local, national and global markets; and designing, executing and analyzing marketing research for sales forecasting; through focused studies in Consumer Behavior, International Marketing, Retail, Promotional & Marketing Management.
CERTIFICATE, SMALL BUSINESS MANAGEMENT
This Small Business Management certificate is offered only through Kenai Peninsula College (KPC).

The one-year Small Business Management certificate enables the student to explore business career options and gives entry-level job skills and/or upgrades skills for employment advancement. It also serves as the first year of training towards the two-year Associate of Applied Science in Small Business Administration.

1. Complete the following required courses:

**MAJOR REQUIREMENTS**

1. Complete the General University Requirements for Associate Degrees located at the beginning of this chapter.
2. Complete the Associate of Applied Science General Degree Requirements (15 credits) located at the beginning of this chapter. To provide maximum transferability, it is recommended that students consider the Bachelor of Business Administration General Education Requirements and business core requirements when selecting courses to fulfill the Associate of Applied Science general requirements.
3. Complete the following communications requirements:
   - ENGL A111 Methods of Written Communication 3
   - Select 3 credits from the following: 3
     - CIS A260A Business Communications (3)
     - ENGL A211 Academic Writing About Literature (3)
     - ENGL A212 Technical Writing (3)
     - ENGL A213 Writing in the Social and Natural Sciences (3)
4. Complete the following requirements:
   a. Select 3 credits from the following: 3
      - ACCT A101 Principles of Financial Accounting I (3)
      - ACCT A201 Principles of Financial Accounting (3)
      - ACCT A120 Bookkeeping for Business I (3)
   b. Select 3 credits from the following: 3
      - ACCT A102 Principles of Financial Accounting II (3)
      - ACCT A202 Principles of Managerial Accounting (3)
      - ACCT A222 Introduction to Computers and Accounting (3)

*Students taking ACCT A101 and ACCT A102 cannot use ACCT A201 for credit for the Small Business Management certificate.

3. Complete the following:
   - BA A166 Small Business Management 3
   - BA A231 Fundamentals of Supervision 3
4. Select 6 credits from the following: 6
   - ACCT Accounting
   - BA Business Administration
   - CIS Computer Information Systems
   - ECON Economics
5. With advisor’s approval, complete 3-5 elective credits.
6. A total of 27-29 credits is required for the certificate.

ASSOCIATE OF APPLIED SCIENCE, GENERAL BUSINESS
This degree is offered only through Kenai Peninsula College and Kodiak College.

ADMISSION REQUIREMENTS
Satisfy the Admission to Certificate and Associate Degree Programs Requirements in Chapter 7, “Academic Standards and Regulations.”

GENERAL UNIVERSITY REQUIREMENTS
1. Complete the General University Requirements for Associate Degrees located at the beginning of this chapter.
2. Complete the Associate of Applied Science General Degree Requirements (15 credits) located at the beginning of this chapter.

MAJOR REQUIREMENTS
1. Complete the following required courses:
   - ACCT A101 Principles of Financial Accounting I (3)
   - ACCT A102 Principles of Financial Accounting II (3)
   - BA A151 Introduction to Business 3
   - BA/JUST A241 Business Law I 3
   - BA/JUST A242 Business Law II 3
   - CIS A105 Introduction to Personal Computers and Application Software 3
   - ECON A201 Principles of Macroeconomics 3
   - ECON A202 Principles of Microeconomics 3
2. Complete an additional 12 credits from any 100- or 200-level ACCT, BA, CS, ECON, or CIS course.
3. Complete an additional 9 elective credits.
4. A total of 60 credits is required for the degree.

ASSOCIATE OF APPLIED SCIENCE, SMALL BUSINESS ADMINISTRATION

ADMISSION REQUIREMENTS
Satisfy the Admission to Certificate and Associate Degree Programs Requirements in Chapter 7, “Academic Standards and Regulations.”

GENERAL UNIVERSITY REQUIREMENTS
1. Complete the General University Requirements for Associate Degrees located at the beginning of this chapter.
2. Complete the Associate of Applied Science General Degree Requirements (15 credits) located at the beginning of this chapter. To provide maximum transferability, it is recommended that students consider the Bachelor of Business Administration General Education Requirements and business core requirements when selecting courses to fulfill the Associate of Applied Science general requirements.

MAJOR REQUIREMENTS
1. Complete the required support courses:
   - ACCT A101 Principles of Financial Accounting I (3) and ACCT A102 Principles of Financial Accounting II (3)
   - ACCT A201 Principles of Financial Accounting (3) or ACCT A202 Principles of Managerial Accounting (3)
   - CIS A110 Computer Concepts in Business (3)
   - MATH A105 Intermediate Algebra (3) or MATH A107 College Algebra (4)
   - MATH A172 Applied Finite Mathematics (3)

*Note: MATH A105 will not satisfy the Quantitative Skills General Education Requirement for the baccalaureate degree.*

2. Complete the required BA core courses:
   - BA A151 Introduction to Business (3)
   - BA A166 Small Business Management (3)
   - BA A231 Fundamentals of Supervision (3)
   - BA A233 Fundamentals of Financial Management (3)
   - BA/JUST A241 Business Law I (3)
   - BA A260 Marketing Practices (3)
   - BA A264 Personal Selling (3)
3. Complete 9-12 credits of electives from the following: 9-12
   - BA A131 Personal Finance (3)
   - BA A232 Fundamentals of Organizational Management (3)
   - BA/JUST A242 Business Law II (3)
   - BA A263 Practices in Consumer Behavior (3)
4. A total of 60 credits is required for the degree.

*Note: Students planning to go on to a BBA Accounting degree must have a grade of “C” or better in all business courses.*
BACHELOR OF BUSINESS ADMINISTRATION

Major areas:  
- Economics
- Finance
- Global Logistics Management
- Management
- Marketing

The Bachelor of Business Administration (BBA) is a professional degree offered through the College of Business and Public Policy. It is designed to prepare students to pursue meaningful and rewarding careers in management. The curriculum for the BBA degree is management oriented rather than highly specialized. Concepts that are relevant to both small and large firms and both the public and private sectors are emphasized.

The five majors — Economics, Finance, Global Logistics Management, Management, and Marketing are designed to prepare students to pursue careers in the private and public sectors. Local, state, national, and international firms, and not-for-profit organizations provide a ready market for graduates in each of these five major areas of concentration.

ADMISSION REQUIREMENTS

Complete the Admission to Baccalaureate Programs Requirements in Chapter 7, “Academic Standards and Regulations.”

ADMISSION REQUIREMENTS TO UPPER-DIVISION COURSES

1. Completion of at least 39-40 credits with a cumulative GPA of 2.25 or higher.
2. Completion of each of the following courses with a grade of “C” or better:
   - ACCT A201 and A202 6
   - BA A273 3
   - CIS A110 3
   - ECON A201 and A202 6
   - ENGL A111 and A212 6
   - MATH A107 or A172 3-4
   - Oral Communication Skills GER 3
3. Completion of any combination of at least 9 credits in the following General Education Disciplinary Areas:
   - Fine Arts
   - Humanities
   - Natural Sciences

Admission to Upper-division Status:

BBA students in Economics, Finance, Global Logistics Management, Management, and Marketing who do not meet the above standards may not take upper-division courses in ACCT, BA, CIS, or LOG.

Other students who meet course prerequisites may take up to fifteen (15) upper-division ACCT, BA, CIS, and LOG credits without being formally admitted to a BBA program. All students must apply for admission to a BBA program before accumulating more than fifteen such credits. Please contact the Student Information Office for assistance in applying for admission to upper-division standing within the College of Business and Public Policy.

Conditional Admission to Upper-division Status:

A student classified as being conditionally admitted to upper-division status may take upper-division ACCT, BA, CIS, and LOG courses for one semester only, while completing lower-division requirements.

GRADUATION REQUIREMENTS

Students must complete the following graduation requirements:

A. GENERAL UNIVERSITY REQUIREMENTS

Complete the General University Requirements for All Baccalaureate Degrees listed at the beginning of this chapter.

B. GENERAL EDUCATION REQUIREMENTS

Complete the General Education Requirements for Baccalaureate Degrees listed at the beginning of this chapter.

C. COLLEGE OF BUSINESS AND PUBLIC POLICY REQUIREMENTS

ECONOMICS, FINANCE, MANAGEMENT, GLOBAL LOGISTICS MANAGEMENT AND MARKETING MAJORS

Students earning a BBA degree must complete at least 50% of their required business credits at the University of Alaska Anchorage. All ACCT, BA, CIS, ECON, LGOP and LOG courses are considered business credits for the purpose of this requirement.

1. Complete the Business core requirements. The following courses must be completed with a “C” or better:
   - ACCT A201* Principles of Financial Accounting 3
   - ACCT A202 Principles of Managerial Accounting 3
   - BA/JUST A241 Business Law I 3
   - BA A273 Introduction to Statistics for Business and Economics 3
   - CIS A110 Computer Concepts in Business 3
   - ECON A201 Principles of Microeconomics 3
   - ECON A202 Principles of Macroeconomics 3
   - ENGL A212 Technical Writing 3
   - MATH A107 College Algebra (4) 3-4
   - MATH A172 Calculus I (4) 3-4
   - MATH A272* Applied Calculus (3)
   *The ACCT A101 and A102 sequence may be used to satisfy the ACCT A201 requirement for this degree.

Note: Students who plan to attend graduate school are encouraged to take MATH A107 (College Algebra) and MATH A200 (Calculus) instead of MATH A172 and MATH A272.

2. Complete these upper-division core courses. The following courses must be completed with a “C” or better prior to graduating:
   - BA A300 Organizational Theory and Behavior 3
   - BA A325 Corporate Finance 3
   - BA A343 Principles of Marketing 3
   - BA A377 Operations Management 3
   - BA A488 The Environment of Business 3
   - CIS A305 Managerial Presentations 3
   - CIS A376 Management Information Systems 3

D. MAJOR REQUIREMENTS

Economics Major

1. Complete the following requirements. The following courses must be completed with a “C” or better prior to graduating:
   - ECON A321 Intermediate Microeconomics 3
   - ECON A324 Intermediate Macroeconomics 3
   - ECON A350 Money and Banking 3
   - ECON A429 Business Forecasting 3
   - Upper-Division Economics electives* 12
   *Note: No more than a total of 6 credits earned in an independent study, or ECON A454, Economics Internship, may be used to satisfy requirements for the major (6 credits of independent study or 3 credits of independent study and 3 credits of ECON A454).

2. A total of 120 credits is required for the degree, of which a minimum of 48 credits must be upper-division.
UNDERGRADUATE PROGRAMS, COLLEGE OF BUSINESS AND PUBLIC POLICY

Finance Major
1. Complete the following requirements. The following courses must be completed with a “C” or better prior to graduating:
   - BA A375 Statistics for Business and Economics (3)
   - ECON A429 Business Forecasting (3)
   - BA A425 Advanced Corporate Financial Problems (3)
   - BA A426 Financial Institutions (3)
   - BA A427 International Finance (3)
   - BA A450 Investment Management (3)

2. The following courses must be completed with a “C” or better prior to graduating:
   - Upper-division Business electives (At least 9 credits, any combination, must be in ECON, ACCT, or Real Estate).

3. A total of 120 credits is required for the degree, of which a minimum of 48 credits must be upper-division.

Global Logistics Management Major
1. Complete the following requirements. The following courses must be completed with a grade of “C” or better prior to graduating:
   - LOG A378 Management of Global Logistics Supply Chains (3)
   - LOG A379 Transportation Management (3)
   - LOG A415 Purchasing Management (3)
   - LOG A416 International Logistics and Transportation Management (3)
   - LOG A417 Materials Management (3)

2. Complete LOG A495 Internship in Global Logistics Management*
   *The internship is intended to be in logistics. This requirement may be waived if the major advisor determines that the student already has significant logistics work experience. If waived, student may need to select 3 additional upper-division credits to total 48.

3. Complete 9 credits of upper-division program electives approved by the student’s advisor with a grade of “C” or better.

   These may include, but are not limited to the following:
   - ACCT A342 Managerial Cost Accounting (3)
   - AT A332 Transport Aircraft Systems (3)
   - AT A420 Air Transportation System (3)
   - BA A330 Marketing Research (3)
   - BA A375 Statistics for Business and Economics (3)
   - BA A447 International Marketing (3)
   - ECON A330 Database Management Systems (3)
   - CIS A310 Analysis of Business Systems (3)
   - CIS A330 Database Management Systems (3)
   - CIS A410 Project Management (3)
   - CIS A489 Systems Design, Development and Implementation (3)
   - ECON A429 Business Forecasting (3)
   - ECON A463 International Economics (3)

4. A total of 120 credits is required for the degree, of which a minimum of 48 credits must be upper-division.

Management Major
1. Complete the following requirements. The following courses must be completed with a “C” or better prior to graduating:
   - BA A361 Human Resource Management (3)
   - BA A461 Negotiations and Conflict Management (3)
   - BA A462 Strategic Management (3)
   - BA A481 Applications in Management (3)
   - BA A489 Entrepreneurship and New Business Planning (3)

2. The following courses must be completed with a “C” or better prior to graduating:
   - Upper-division electives in ACCT, BA, CIS, ECON or LOG (12 credits)

3. A total of 120 credits is required for the degree, of which a minimum of 48 credits must be upper-division.

MINOR, BUSINESS ADMINISTRATION *

Students majoring in another subject who wish to minor in Business Administration must complete the following requirements. A total of 21 credits is required for the minor. Prerequisites for these courses must also be satisfied.

- ACCT A201 Principles of Financial Accounting (3)
- ACCT A202 Principles of Managerial Accounting (3)
- ECON A201 Principles of Macroeconomics (3)
- ECON A202 Principles of Microeconomics (3)
- Upper-division Business electives (9)

* Not available to BBA majors.

FACULTY

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COMPUTER INFORMATION SYSTEMS

http://www.chpp.uaa.alaska.edu/degrees/degrees.asp
Business Education Building (BED), Room 309, (907) 786-4100

The Computer Information Systems department provides educational opportunities in computer information systems through degree programs, courses for all students, and career-enrichment opportunities.

Courses involving computer instruction, as well as many other business school courses, are supported by seven computerized classrooms and state-of-the-art open laboratory facilities. These computer classrooms and labs provide students with hands-on learning experiences using the latest Intel workstations supported by IBM, Microsoft and Linux network servers. Our computer environment features several state-of-the-art computer languages, including 4GL, query, and object oriented languages.
College of Business and Public Policy students have the opportunity to use the computer facilities to help them with their coursework. Laboratories include special business presentation facilities and an experimental multimedia and a decision-support room.

Computer courses are taught using both structured instructor-led and self-guided tutorial approaches in the traditional classroom as well as online discussions.

**Computer Information Systems**  
*(Business Computer Information Systems, Management Information Systems)*

The College of Business and Public Policy prepares students for computer careers in computer programming and systems design, network administration and database administration through our Associate of Applied Science degree in Business Computer Information Systems (BCIS). Students are prepared for computer careers in systems analysis and design, web-design, end-user computing, managing information systems, databases and networks, and associated occupations through the Management Information Systems (MIS) major in the Bachelor of Business Administration. Both degrees are based on the Association of Information Technology Professionals (AITP) model curriculum and are linked so that the diligent student can move from the two-year to four-year degree without losing credits.

Both degrees emphasize using computers within business and public sector settings through hands-on teaching methods. The student is prepared for the technical aspects of the computer environment as well as the techniques and issues of managing information resources through the introduction of the theories followed by hands-on experience with the associated applications.

Computer career education in the College of Business and Public Policy is enhanced by work and internship opportunities both within our own laboratories and with business and government facilities.

### Associate of Applied Science, Business Computer Information Systems

**Admission Requirements**

Satisfy the Admission to Certificate and Associate Degree Program Requirements in Chapter 7, “Academic Standards and Regulations.” English and Math Placement Tests are given by the Advising and Counseling Center. Your faculty advisor will assist you by recommending the proper levels of entry and appropriate CIS course plan. Students who are not proficient in typing (a minimum of 30 wpm) should enroll in CIOS A100A Keyboarding I A. Students must be able to read and comprehend technical manuals and texts.

**Academic Progress**

A grade of “C” or higher is required to continue in each higher CIS course. To take upper-division Information Systems program courses, students must complete lower-division degree requirements and apply for upper-division standing.

**General University Requirements**

1. Complete the General University Requirements for Associate Degrees located at the beginning of this chapter.
2. Complete the Associate of Applied Science General Degree Requirements (15 credits) located at the beginning of this chapter. ENGL A212 is recommended. For the general requirements, it is strongly recommended that students select 6 credits from Humanities, Math and Natural Sciences or Social Sciences that meet both the AAS and the Baccalaureate General Education Requirements.

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**Major Requirements**

1. Complete the breadth requirements:
   - ACCT A201* Principles of Financial Accounting 3
   - ACCT A202 Principles of Managerial Accounting 3
   - CIS A110 Computer Concepts in Business 3
   - ECON A201 Principles of Macroeconomics 3
   - ECON A202 Principles of Microeconomics 3
   - MATH A107 College Algebra (4) 3-4  
   - MATH A172 Applied Finite Mathematics (3) 3
   - General Education Requirement Elective** 3
   - *The ACCT A101 and A102 sequence may be used to satisfy the ACCT A201 requirement for this degree.
   - **Choose Humanities or Natural Sciences course that meets both AAS and General Education Requirements for Baccalaureate Degrees.

2. Complete the Business core requirement:
   - BA A273 Introduction to Statistics for Business and Economics 3

3. Complete CIS required courses:
   - CIS A185 Introduction to Programming Business Applications 3
   - CIS A201 Programming Business Applications 4
   - CIS A310 Analysis of Business Systems 3
   - CIS A330 Database Management Systems 3
   - CIS A345 Managing Data Communications and Computer Networks 3

4. Complete elective credits approved by a CIS Department advisor. 6

No more than 3 credits of internship can be used to fulfill program electives.

5. A minimum of 12 credits from Major Requirements, items 3 and 4 above, must be earned at the University of Alaska Anchorage.

6. A total of 61-62 credits is required for the degree.

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**Bachelor of Business Administration, Management Information Systems**

**Admission Requirements**

Complete the Admission to Baccalaureate Programs Requirements in Chapter 7, “Academic Standards and Regulations.”

**Admission Requirements to Upper-division Courses**

1. Completion of at least 39-40 credits with a cumulative GPA of 2.25 or higher.
2. Completion of each of the following courses with a grade of “C” or better:
   - ACCT A201 and A202 6
   - BA A273 3
   - CIS A110 3
   - Oral Communication Skills GER 3
   - ECON A201 and A202 6
   - ENGL A111 and A212 6
   - MATH A107 or A172 3-4
3. Completion of any combination of at least 9 credits in the following General Education Disciplinary Areas: 9
   - Fine Arts
   - Humanities
   - Natural Sciences

**Admission to Upper-division Status:**

BBA students in Management Information Systems who do not meet the above standards may not take upper-division courses in ACCT, BA, CIS or LOG.

Other students who meet course prerequisites may take up to fifteen (15) upper-division ACCT, BA, CIS, and LOG credits without being formally admitted to a BBA program. All students must apply for admission to a BBA program before accumulating more than fifteen such credits. Please contact the Student Information Office for assistance in applying for admission to upper-division standing within the College of Business and Public Policy.
**Conditional Admission to Upper-division Status:**
A student classified as being conditionally admitted to upper-division status may take upper-division ACCT, BA, CIS and LOG courses for one semester only, while completing lower-division deficiencies.

**Graduation Requirements**
Students must complete the following graduation requirements:

**A. General University Requirements**
Complete the General University Requirements for All Baccalaureate Degrees listed at the beginning of this chapter.

**B. General Education Requirements**
Complete the General Education Requirements for Baccalaureate Degrees listed at the beginning of this chapter.

**C. College of Business and Public Policy Requirements: Management Information Systems Major**
Students earning a BBA degree must complete at least 50% of their required business credits at the University of Alaska Anchorage. All ACCT, BA, CIS, ECON, LGOP, and LOG courses are considered business credits for the purpose of this requirement.

1. Complete the Business Core requirements with a grade of “C” or better:
   - ACCT A201* Principles of Financial Accounting 3
   - ACCT A202 Principles of Managerial Accounting 3
   - BA A273 Introduction to Statistics for Business and Economics 3
   - CIS A110 Computer Concepts in Business 3
   - ECON A201 Principles of Microeconomics 3
   - ECON A202 Principles of Macroeconomics 3
   - ENGL A212 Technical Writing 3
   - MATH A107 College Algebra (4) 3-4
   - MATH A172 Applied Finite Mathematics(3) 3-4
   - MATH A200 Calculus I (4) 3-4
   - MATH A272 Applied Calculus (3)

*The ACCT A101 and A102 sequence may be used to satisfy the ACCT A201 requirement for this degree.

Note: Students who plan to attend graduate school are encouraged to take MATH A107 (College Algebra) and MATH A200-201-202 (Calculus) instead of MATH A172 and MATH A272.

2. Complete the following requirements. The following courses must be completed with a grade of “C” or better prior to graduating:
   - BA A300 Organizational Theory and Behavior 3
   - BA A325 Corporate Finance 3
   - BA A343 Principles of Marketing 3
   - BA A377 Operations Management 3
   - BA A488 The Environment of Business 3
   - CIS A305 Managerial Presentations 3
   - CIS A376 Management Information Systems 3

3. A minimum of CIS A489 and 9 credits from Major Requirements, items 1 and 2, must be earned at the University of Alaska Anchorage.

4. A total of 120 credits is required for the degree, of which a minimum of 48 credits must be upper-division.

**Minor, Computer Information Systems**
Students majoring in another subject who wish to minor in Computer Information Systems (CIS) must complete the following requirements. A total of 18 credits is required for the minor, 12 of which must be upper-division.

- CIS A110 Computer Concepts in Business 3
- CIS A185 Introduction to Programming 3
- CIS A330 Database Management Systems 3
- CIS A376* Management Information Systems 3
- Upper-division CIS electives** 6

*Not available to BBA Management Information Systems majors.

**BBA degree students must take CIS A330, and 3 credits of upper-division CIS electives instead of CIS A376 and A305 to meet the requirements for the minor (CIS A376 and A305 are already required in the business core).

All students pursuing a minor in CIS must apply to the College of Business and Public Policy for upper-division standing prior to taking any upper-division course in CIS. Students pursuing a baccalaureate degree outside the College of Business and Public Policy must complete at least 54 credits in their degree program and have completed General Education Requirements of 6 credits of written communications, 3 credits of oral communication, 3 credits of college algebra (MATH A107 or MATH A172 or equivalent), and 12 credits in GER courses in Fine Arts, Humanities, Social Sciences, or Natural Sciences.

**FACULTY**

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The Economics department provides students with a systematic way of understanding activity in the world around them. Economics is a social science which studies how individuals, organizations, and governments make choices about the use of resources. A degree in economics gives students career opportunities in many fields and provides excellent preparation for those who wish to pursue advanced study in a variety of disciplines. The Economics department offers courses for both degree and non-degree-seeking students at the undergraduate and graduate levels. Students who wish to major in Economics may choose either the Bachelor of Arts or Bachelor of Business Administration degree. A minor in Economics is also offered.

The BA and the BBA in Economics prepares students with a systematic understanding of how individuals, organizations, and governments make choices about the use of resources; for a broad range of careers, including the private and public sectors; and for advanced studies in economics.

HONORS IN ECONOMICS

Students majoring in economics are eligible to graduate with departmental honors if they satisfy all of the following requirements:

1. Meet requirements for BA or BBA in Economics.
2. Maintain a GPA of 3.5 in their major requirements.
3. Complete ECON A488, Seminar in Economic Research with a grade of "A", or honors if they satisfy all of the following requirements:
4. Receive an honors score on a comprehensive exam for economics majors.

Students not meeting all these requirements may be awarded Honors through a vote of the faculty.

BACHELOR OF ARTS, ECONOMICS

ADMISSION REQUIREMENTS

Complete the Admission to Baccalaureate Programs Requirements in Chapter 7, “Academic Standards and Regulations.”

GRADUATION REQUIREMENTS

Students must complete the following graduation requirements:

A. GENERAL UNIVERSITY REQUIREMENTS

Complete the General University Requirements for All Baccalaureate Degrees listed at the beginning of this chapter.

B. GENERAL EDUCATION REQUIREMENTS

Complete the General Education Requirements for Baccalaureate Degrees listed at the beginning of this chapter.

C. MAJOR REQUIREMENTS

1. Complete the following required courses with a grade of “C” or better:
   - BA A273 Introduction to Statistics for Business and Economics 3
   - ECON A201 Principles of Macroeconomics 3
   - ECON A202 Principles of Microeconomics 3
   - ECON A321 Intermediate Microeconomics 3
   - ECON A324 Intermediate Macroeconomics 3
   - ECON A350 Money and Banking 3
   - ECON A412 Econometrics (3) or ECON A430 Mathematics for Economists (3) 3
   - MATH A200 Calculus I (4) or MATH A272 Applied Calculus (3) 3
   - Upper-division Economics electives 12

   *Note: No more than a total of 6 credits earned in an independent study, or ECON A454, Economics Internship, may be used to satisfy requirements for the major (6 credits of independent study or 3 credits of independent study and 3 credits of ECON A454).

   Note: Math skills are important in the study of economics. For this reason majors are to complete their math requirements early in their program. Students planning on graduate school are advised to take the entire calculus sequence (MATH A200, A201, A202).

2. Students must complete at least 12 credits of their Economics courses in residence at UAA.
3. A total of 120 credits is required for the degree, of which 48 credits must be upper-division.

MINOR, ECONOMICS*

Students majoring in another subject who wish to minor in Economics must complete the following requirements. A total of 18 credits is required for the minor, 12 of which must be upper-division.

- ECON A201 Principles of Macroeconomics 3
- ECON A202 Principles of Microeconomics 3
- Upper-division Economics electives 12

* Not available to BA and BBA Economics majors.

FACULTY

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LOGISTICS

http://www.cbpp.uaa.alaska.edu/degrees/degrees.asp
Business Education Building (BEB) Room 309, (907) 786-4100

The Logistics Department offers three undergraduate programs: The Certificate in Logistics, Associate of Applied Science in Logistics Operations, and a major in Global Logistics Management for the Bachelor of Business Administration.

Logistics refers to the movement of material, component parts and information within a business firm; and the distribution of final products to customers. Logistics is an essential function that adds value to the final product. The goal of logistics management is timely delivery, competitive pricing, mobility and flexibility, together with innovative transportation services. Today competitive advantages in global markets no longer reside solely in manufacturing. Companies that master technology and logistics are setting global standards for overall performance. Firms with a virtual warehouse and a world-wide logistics system that carries out dynamic and continuous distribution are gaining the competitive edge.

Every organization that has a purchasing function and/or a delivery process is engaged in logistics. Prospective employers include business firms, nonprofit organizations and government agencies.

Anchorage and Alaska are strategically located relative to the great markets of Europe, Asia and the mainland United States. More freight in tonnage passes through the Ted Stevens Anchorage International Airport on a daily
basis than in any other airport in the United States. Truck and marine transportation is crucial to supplying Alaska with goods. The State owns a railroad, and pipelines move oil and other fuels. The military establishment of Alaska is located here largely because of the logistical advantages obtained from Alaska's strategic location. Effective development of the logistics sector depends on the availability of a labor force that understands and can manage logistics systems.

CERTIFICATE IN LOGISTICS

The Certificate in Logistics program enables students to enhance and develop their understanding and skills in the fields of logistics and supply chain management. It is designed to provide continuing education opportunities to professionals in the business community.

ADMISSION REQUIREMENTS

Satisfy the Admission to Certificate and Associates Degree Program Requirements in Chapter 7, "Academic Standards and Regulations."

GRADUATION REQUIREMENTS

Students must achieve a grade of "C" or better in all courses required for the certificate.

MAJOR REQUIREMENTS

1. Complete the following courses:
   - BA A151 Introduction to Business 3
   - BA A231 Fundamentals of Supervision 3
   - LGOP A110 Logistics Information Systems and Customer Service 3
   - LGOP A120 Warehouse and Inventory Control Systems 3
   - LGOP A160 Purchasing and Supply Management 3
   - LGOP A225 Transportation Services 3
   - LGOP A235 Rates, Tariffs, and Carrier Liability 3
   - CIS A105 Introduction to Personal Computers and Application Software (3) 3
   - CIS A110 Computer Concepts in Business (3)

2. Two electives at the 100-level or higher. 6

3. A total of 30 credits is required for this certificate.

   * If students intend to pursue the Associate degree in Logistics it is recommended that students use these elective credits to prepare for the Written Communications and Math courses required for the AAS LGOP degree.

ASSOCIATE OF APPLIED SCIENCE, LOGISTICS OPERATIONS

The Logistics Operations degree was developed with input from Alaskan business, industry, and military representatives to meet the needs in all aspects of the operational and technical careers of logistics. Students will build a foundation of knowledge and skills for successful logistics operations: information management and customer service, warehousing and inventory control, purchasing and supply management operations, transportation services, transportation rates, tariffs, and carrier liability.

The Logistics Operations AAS degree is designed to prepare graduates for employment in all the operational and technical aspects of global logistics careers and fields. Students who complete the AAS and wish to continue their formal education in Global Logistics Management can apply up to 48 credits to the CBPP baccalaureate degree in Global Logistics Management. Students planning to go on to a four-year program in the College of Business and Public Policy should know that all ACCT, BA, CIS, ECON, LGOP, and LOG courses in those four-year programs must be completed with a grade of C or better.

ADMISSION REQUIREMENTS

Satisfy the Admission to Certificate and Associate Degree Programs Requirements in Chapter 7, “Academic Standards and Regulations.”

GENERAL UNIVERSITY REQUIREMENTS

1. Complete the General University Requirements for Associate Degrees located at the beginning of this chapter.
2. Complete the Associate of Applied Science General Degree Requirements (15 credits) located at the beginning of this chapter. To provide maximum transferability, it is recommended that students consider the Bachelor of Business Administration General Education Requirements, and business core requirements when selecting courses to fulfill the Associate of Applied Science General Requirements.

MAJOR REQUIREMENTS

1. Complete the following courses:
   - BA A151 Introduction to Business 3
   - BA A231 Fundamentals of Supervision 3
   - BA/JUST A241 Business Law I 3
   - CIS A110 Computer Concepts in Business 3
   - ECON A201 Principles of Macroeconomics 3
   - LGOP A110 Logistics Information Systems and Customer Service 3
   - LGOP A120 Warehouse and Inventory Control Operations 3
   - LGOP A160 Purchasing and Supply Management 3
   - LGOP A225 Transportation Services 3
   - LGOP A235 Rates, Tariffs, and Carrier Liability 3
   - MATH A107 College Algebra (4) 3-4
   - MATH A172 Applied Finite Mathematics (3)

2. Complete four of the following courses: 12
   - BA A273 Introduction to Statistics for Business and Economics (3)
   - BA A295 Internship (3)
   - BA A375 Statistics for Business and Economics (3)
   - BA A377 Operations Management (3)
   - ECON A429 Business Forecasting (3)
   - Any 300- or 400-level LOG course (3)
   - OSH A101 Introduction to Occupational Safety and Health (3)
   - OSH A108 Injury Prevention and Risk Management (4)
   - OSH A250 Hazardous Material Operation (3)
   - TECH A295 Technical Internship (1-6)
   - TECH A402 Operational Safety (3)

3. A total of 60-61 credits is required for the degree.

BACHELOR OF BUSINESS ADMINISTRATION

The requirements for the Bachelor of Business Administration with a major in Global Logistics Management are listed with the BBA located earlier in this chapter.

FACULTY

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The University of Alaska Anchorage is in full compliance with the institutional reporting requirements mandated in Title II of the Higher Education Act Amendments of 1998. Please contact the College of Education for a copy of the completed report.

The College of Education comprises a community of educators dedicated to improving the quality of education. The mission of the College of Education is to prepare educators and support the lifelong learning of professionals to embrace diversity and to be intellectually and ethically strong, resilient, and passionate in their work with Alaska's learners, families, educators, and communities. Our programs emphasize the power of learning to transform people's lives. Across the university, faculty members teach professional educators to work in diverse settings, to form and sustain learning partnerships, and to provide learning across the lifespan. We are confident that this preparation will result in educators' significant contributions to society.

We believe that learning must be designed, delivered, and evaluated within the contexts of the following core values and program outcomes. Consequently, the College of Education promotes the core values in their collegial interactions to ensure that program graduates exhibit:

- **Intellectual Vitality**: Professional educators examine diverse perspectives, engage in research and scholarship, contribute to knowledge and practice, and apply innovations in technology.
- **Collaborative Spirit**: Professional educators generate, welcome, and support the collaborative relationships and partnerships that enrich people's lives.
- **Inclusiveness and Equity**: Professional educators create and advocate for learning communities that advance knowledge and ensure the development, support, and inclusion of peoples' abilities, values, ideas, languages, and expressions.
- **Leadership**: Professional educators are committed to the highest standards of ethical behavior in their roles, using professional expertise to improve the communities in which they live and work, and demonstrating the ability to translate theories and principles into transformative educational practice.

The College of Education offers undergraduate and graduate curricula and programs designed to prepare personnel for various professional roles related to education in a variety of learning environments. Our professional preparation programs are approved by the Alaska Department of Education and Early Development and meet the accreditation standards established by the National Association of State Directors of Teacher Education and Certification.

The Alaska Department of Education and Early Development issues certification. These documents are available on the College of Education's Conceptual Framework as well as abide by the UAA Student Code of Conduct and the Code of Ethics and Professional Teaching Standards adopted by the Alaska Professional Teaching Practices Commission. These documents are available on the College of Education web site.

Candidates should be advised that total credits may exceed minimums because of prerequisite requirements, individually selected majors and minors, and areas of specialization and/or emphasis.

### Undergraduate Program Options

The College of Education offers several program options for candidates interested in working with children:

- Early Childhood Development Certificate
- Associate of Applied Science in Early Childhood Development
- Bachelor of Arts in Early Childhood

The College of Education offers undergraduate and graduate curricula and programs designed to prepare personnel for various professional roles related to education in a variety of learning environments. Our professional preparation programs are approved by the Alaska Department of Education and Early Development and meet the accreditation standards established by the National Association of State Directors of Teacher Education and Certification.

### High School Preparation

All programs in the College of Education build upon the candidates’ strong high school preparation in the following areas:

- a. English composition and writing
- b. Oral communication
- c. World languages
- d. Algebra
- e. Computer literacy
- f. Social sciences
- g. Natural sciences

### Field Placements

Practica, internships, and other field placements are made only in cooperation with participating school districts and agencies. The school districts and agencies that work in cooperation with the College of Education reserve the right to request additional information and/or preparation from candidates, as determined by their established policies and practices. Cooperating districts and agencies also determine the number of available spaces and placements for candidates. Placements may become competitive if the number of applicants exceeds the number of spaces. Districts and agencies also reserve the right to refuse or terminate placements when candidates do not meet an acceptable standard of performance. Thus, while the University makes every effort to find appropriate field placements for candidates, admittance to a degree/certificate/endorsement program does not guarantee acceptance by cooperating school districts or agencies.

Candidates who have completed all or part of an approved program at another university must take at least nine credits of approved education courses at the University of Alaska Anchorage prior to being admitted to an advanced practicum or internship.
The College of Education has three academic departments:

1. The Department of Teaching and Learning with programs in early childhood education, elementary education, and secondary education. (907) 786-4412
2. The Department of Counseling and Special Education with programs in counselor education, special education, early childhood special education and opportunities in speech and language pathology. (907) 786-6517
3. The Department of Educational Leadership with programs in adult education and educational leadership (principal and superintendent preparation). (907) 786-4450

**PROFESSIONAL AND CONTINUING EDUCATION**

[http://ed.uaa.alaska.edu/pace](http://ed.uaa.alaska.edu/pace)

The Office of Professional and Continuing Education (PACE) facilitates professional development opportunities for educators and other service professionals. PACE works collaboratively with UAA academic units and partner organizations to provide responsive service and support for 500-level courses, workshops, conferences, institutes, and academies. Committed to addressing the community’s immediate and changing professional development needs, PACE works closely with school districts, professional societies, and private and government agencies.

**EARLY CHILDHOOD**

[http://ed.uaa.alaska.edu/earlychildhood](http://ed.uaa.alaska.edu/earlychildhood)

The Early Childhood Program at UAA blends theory and practice in the preparation of early childhood educators who can deliver quality care and education for young children from birth through age eight years.

Within the Early Childhood Program there are four options:

- Early Childhood Development Certificate
- Associate of Applied Science in Early Childhood Development
- Bachelor of Arts in Early Childhood
- Master of Education, Master Teacher Specialty Option in Early Childhood

The Early Childhood Development Certificate Program and the Associate of Applied Science in Early Childhood Development Program prepare paraeducators and other professionals to work in early care and education settings, including the public school system. The Bachelor of Arts in Early Childhood prepares professionals to work with young children from birth through eight years and offers two different emphasis areas: a) Infant/Toddler/Preschool and b) Preschool/Primary. The graduate program offers a Master of Education, Master Teacher Specialty Option in Early Childhood (refer to graduate programs in the graduate section of the catalog). All programs are developed to meet the National Association for the Education of Young Children guidelines for personnel preparation.

**CERTIFICATE, EARLY CHILDHOOD DEVELOPMENT**

**ADMISSION REQUIREMENTS**

Applicants must satisfy the Admission to Certificate and Associate Degree Programs Requirements in Chapter 7, “Academic Standards and Regulations.” In order to be admitted to the Early Childhood Development Program, applicants must complete an application to the Associate of Applied Science Early Childhood Development Program. Applications may be obtained from the Department of Teaching and Learning. To be admitted to the Early Childhood Development practicum courses (ECD A295A and ECD A295B), applicants must meet all requirements for and be admitted by an advisor into the practicum courses and have earned a grade of “C” or above in all ECD courses.

**ACADEMIC PROGRESS**

All candidates in the Early Childhood Development Certificate Program must maintain a cumulative GPA of 2.0 or above in all ECD courses.

**CERTIFICATE REQUIREMENTS**

1. Complete the following required courses:
   - ECD A105 Introduction to the Field of Early Childhood 3
   - ECD A111 Safe Learning Environments 1
   - ECD A112 Healthy Learning Environments 1
   - ECD A113 Learning Environments 1
   - ECD A121 Physical Activities for Young Children 1
   - ECD A122 Cognitive Activities for Young Children 1
   - ECD A123 Communication 1
   - ECD A124 Creative Activities for Young Children 1
   - ECD A131 Guidance and Discipline 1
   - ECD A132 Social Development 1
   - ECD A211 Development of a Sense of Self 1
   - ECD A221 Families 1
   - ECD A222 Program Management 1
   - ECD A223 Exploring and Developing Personal Capabilities in Teaching 1
   - ECD A224 Professionalism 1
   - ECD A231 Screening 1
   - ECD A232 Assessment/Recording 1
   - ECD A233 Mainstreaming Preschool Children with Special Needs 1
   - ECD A295A Practicum I 3
   - ECD A295B Practicum II 3
   - DN A145 Child Nutrition 2
   - PSY A245 Child Development 3

2. A total of 31 credits is required for the certificate.

**ASSOCIATE OF APPLIED SCIENCE, EARLY CHILDHOOD DEVELOPMENT**

**ADMISSION REQUIREMENTS**

Applicants must satisfy the Admission to Certificate and Associate Degree Programs Requirements in Chapter 7, “Academic Standards and Regulations.” In order to be admitted to the Early Childhood Development Program, applicants must complete an application to the Associate of Applied Science Early Childhood Development Program. Applications may be obtained from the Department of Teaching and Learning. To be admitted to the Early Childhood Development practicum courses (ECD A295A and ECD A295B), applicants must meet all requirements for and be admitted by an advisor into the practicum courses and have earned a grade of “C” or above in all ECD courses.

**ACADEMIC PROGRESS**

All candidates in the Associate of Applied Science Early Childhood Development Program must maintain a cumulative GPA of 2.00 or above in all ECD courses.

**GENERAL UNIVERSITY REQUIREMENTS**

1. Complete the General University Requirements for Associate Degrees located at the beginning of this chapter.
2. Complete the Associate of Applied Science General Degree Requirements (15 credits) located at the beginning of this chapter.
MAJOR REQUIREMENTS

1. Complete the following required courses:
   - ECD A105 Introduction to the Field of Early Childhood 3
   - ECD A111 Safe Learning Environments 1
   - ECD A112 Healthy Learning Environments 1
   - ECD A113 Learning Environments 1
   - ECD A121 Physical Activities for Young Children 1
   - ECD A122 Cognitive Activities for Young Children 1
   - ECD A123 Communication 1
   - ECD A124 Creative Activities for Young Children 1
   - ECD A131 Guidance and Discipline 1
   - ECD A132 Social Development 1
   - ECD A211 Development of a Sense of Self 1
   - ECD A221 Families 1
   - ECD A222 Program Management 1
   - ECD A223 Exploring and Developing Personal Capabilities in Teaching 1
   - ECD A224 Professionalism 1
   - ECD A231 Screening 1
   - ECD A232 Assessment/Recording 1
   - ECD A233 Mainstreaming Preschool Children with Special Needs 2
   - ECD A295A Practicum I 3
   - ECD A295B Practicum II 3
   - DN A145 Child Nutrition 2
   - PSY A245 Child Development 3

2. Complete an additional 15 credits of electives; 12 credits are to be selected from any of the baccalaureate General Education Requirements and 3 credits may be selected from any area.

3. A total of 61 credits is required for the degree.

BACHELOR OF ARTS, EARLY CHILDHOOD EDUCATION

An individual interested in undergraduate early childhood preparation may obtain a Bachelor of Arts in Early Childhood Education to work with children from the ages of birth to pre-kindergarten or pre-kindergarten to grade three.

The Bachelor of Arts in Early Childhood is a professional degree. Unique features of the program include a foundation in liberal studies with coursework in child development and families. Candidates will engage in field experiences throughout their coursework to directly apply teaching and learning principles. In addition, candidates will engage in a year-long internship in early childhood settings. Admission to the program occurs in two stages (see below) and admission to the internship requires academic achievement, written and oral communication skills, and community involvement. The deadline for internship placement consideration is February 20.

Field experiences and internships are made in cooperation with the participating early childhood programs or schools. The partnership programs that work in cooperation with the College of Education Early Childhood Development program reserve the right to request additional information and/or preparation from candidates, in accordance with the program’s established policies and practices. Cooperating partnership programs can also determine the number of available spaces and placements for candidates. Placements may become competitive if the number of applicants exceeds the number of spaces. Partnership programs also reserve the right to refuse or terminate placements when candidates do not meet an acceptable standard of performance. Thus, while the University makes every effort to find appropriate field placements for candidates, admittance to a degree/certificate/endorsement program does not guarantee acceptance by partnership programs.

ADMISSION REQUIREMENTS

Admission to the University of Alaska Anchorage: Early Childhood Major

Applicants must complete the Admission to Baccalaureate Programs Requirements in Chapter 7, “Academic Standards and Regulations.” Application forms are available on the UAA website at: http://www.uaa.alaska.edu/admissions.

Admission to the Department of Teaching and Learning, College of Education: Early Childhood Major

Admission to the Department of Teaching and Learning is a prerequisite for all coursework in early childhood. In order to be admitted to the Department of Teaching and Learning, applicants must:

1. Complete the application to the Department of Teaching and Learning, Early Childhood major by one of the following dates: March 1, August 1, or November 1.
2. Complete a minimum of 45 foundation credits, including all General Education Requirements, required for the degree (transfer credits may be used).
3. Have a cumulative GPA of 3.00.
4. Successfully complete the Praxis I exam. Applicants may not enroll in early childhood courses without passing this exam at the level established by the College of Education.
5. Provide evidence of a current negative TB skin test. Free tests are available at the Student Health Center for current UAA students.

Note: Admission to the Department of Teaching and Learning is competitive. Qualified applicants are accepted on a space-available basis. Admission to the University as an Early Childhood major does not guarantee admission to the Department.

Admission to Early Childhood Internship

The Early Childhood Programs Admission Committee has the responsibility of determining a candidate’s readiness to enroll in methods and the internship. The candidate must realize the requirements set forth below constitute minimum preparation, and it may be the judgment of the Committee that the candidate needs further work to develop content, methodology, or classroom experience.

1. Meet all the requirements for and be admitted to the Department of Teaching and Learning as an Early Childhood major.
2. Submit an application form for internship by February 20.
3. Submit one letter of recommendation from someone who can speak to the applicant’s potential as a future early childhood educator.
4. Demonstrate general content knowledge competency through successful completion of all foundation coursework with a 3.0 GPA and a passing score on Praxis II: Elementary Content Knowledge.
5. Provide evidence of successful experiences working with children.
6. Interview.
7. Initiate fingerprinting and criminal background check process.
8. Provide evidence of a current physical exam and negative TB skin test. These services are available free at the UAA Student Health Center.
9. Maintain student health insurance throughout internship. Candidates may purchase this insurance through UAA.

Note: Qualified applicants are accepted on a space-available basis. Admission to the Department of Teaching and Learning does not guarantee admission to the internship.

ACADEMIC PROGRESS

Satisfactory progress in the first internship is required for enrollment in the second internship. All Early Childhood major courses must be completed with a grade of “C” or higher in order to obtain an institutional recommendation for teacher certification. In addition, foundation courses in child development and families and community relationships must be completed with a grade of “C” or higher in order to obtain an institutional recommendation for teacher certification.
GRADUATION REQUIREMENTS

Candidates must complete the following requirements:

A. GENERAL UNIVERSITY REQUIREMENTS

Complete the General University Requirements for All Baccalaureate Degrees listed at the beginning of this chapter.

B. GENERAL EDUCATION REQUIREMENTS

Complete the General Education Requirements for Baccalaureate Degrees listed at the beginning of this chapter.

C. FOUNDATION REQUIREMENTS

Complete the following foundation courses. The courses are selected to provide future early childhood educators with the skills and background knowledge in the various subjects they will be expected to teach. The selection is based on national and state standards for content preparation. Some of the foundation courses may also be used to meet General Education Requirements.

Oral and Written Communication Skills (9 credits)
Select one course from GER Oral Communication List 3
Select two courses from GER Written Communication List 6

Liberal Studies Integrated Sciences Core (10 credits)
LSIS A102 Origins: Earth-Solar Systems-Life 5
LSIS A201 Life on Earth 5

Mathematical Skills (6 credits)
Select one course from GER Quantitative Skills List 3-4
(MATH A107 recommended)
MATH A205 Communicating Mathematical Ideas 3

Liberal Studies Humanities Core (9 credits)
HUM A211 Introduction to Humanities I 3
HUM A212 Introduction to Humanities II 3
Select one course from GER Fine Arts List 3

Liberal Studies Social Sciences Core (9 credits)
LSSS A111 Cultural Foundations of Human Behavior 3
HIST A341 History of Alaska 3
HIST A355 Major Themes in US History 3

Child Development (8 credits)
PSY A150 Life Span Development 3
PSY A245 Child Development 3
DN A145 Child Nutrition 2

Families & Community Relationships (6 credits)
SWK 342 Human Behavior in the Social Environment 3
SWK 409 Introduction to Child Welfare 3

D. MAJOR REQUIREMENTS

1. Complete the following core courses. Field experience in early childhood programs may be required as part of the courses.

ECD A105 Introduction to the Field of Early Childhood 3
ECD A210 Guiding Young Children 3
ECD A241 Infant and Toddler Development 3
ECD A242 Family and Community Partnerships 3
ECD A301 Observation, Documentation: Understanding Young Children 4
ECD A303 Young Children in Inclusive Settings 3
ECD A304 Environments, Spaces, and Relationships 3
ED A300 Philosophical & Social Context of American Education 3
ED A301 Foundations of Literacy and Language Development 3
ED A302 Foundations of Educational Technology 3
ED A303 Foundations of Teaching and Learning 3
ECD A305 Planning Meaningful Curriculum for Young Children 3
ECD A306 Assessment of Young Children 3

2. Complete one of two emphasis areas:
   Infant/Toddler/Preschool or Preschool/Primary.

   Infant/Toddler/Preschool (26 credits)
   ECD A401 Infant/Toddler Approaches and Programs 3
   ECD A402 Preschool Approaches and Programs 3
   ECD A403 Mathematics and Science in Early Childhood 3
   ECD A404 Literacy for Young Children I 3
   ECD A405 Literacy for Young Children II 3
   ECD A406 Creative Expression in Early Childhood 3
   ECD A495A Internship, Infant/Toddler 4
   ECD A495B Internship, Preschool 4

   Preschool/Primary (26 credits)
   ECD A403 Mathematics and Science in Early Childhood 3
   ECD A404 Literacy for Young Children I 3
   ECD A405 Literacy for Young Children II 3
   ECD A406 Creative Expression in Early Childhood 3
   ED A427 Teaching Social Studies in Elementary Schools 2
   ED A429 Teaching Health Education in Elementary Schools 2
   ED A432 Physical Education for Elementary Classroom Teachers 1
   ECD A495C Internship I, Primary 3
   ECD A495D Internship II, Primary 6

3. A total of 122 -123 credits is required for the degree, of which 42 must be upper division.

INSTITUTIONAL RECOMMENDATION - PRE-K-3 TEACHER CERTIFICATION

Candidates who complete the Preschool/Primary emphasis may apply for teacher certification, Pre-K-3rd grade. Following are the requirements for an institutional recommendation:

1. Major requirements completed with a grade of “C” or higher.
2. Foundation courses in child development and families and community relationships completed with a grade of “C” or higher.
3. Cumulative GPA of 3.00.
4. Cumulative GPA of 3.00 in all major requirements.
5. Passing scores on the Praxis I and Praxis II exams.
6. College of Education’s educational technology assessment satisfactorily completed.
7. Internships satisfactorily completed.
8. Bachelor of Arts in Early Childhood Education degree conferred.
ELEMENTARY EDUCATION

http://ed.uaa.alaska.edu/elementary
Professional Studies Building (PSB), Room 224, (907) 786-4412

BACHELOR OF ARTS, ELEMENTARY EDUCATION
(with Teacher Certification)

Individuals interested in undergraduate elementary teacher preparation may obtain either a B.A. in Elementary Education with elementary teacher certification or Elementary Teacher Certification Only.

The B. A. in Elementary Education is a professional degree. Unique features of the program include a strong liberal studies emphasis, integration of educational technology, and a year-long internship that follows the school district’s calendar rather than the UAA calendar. Applicants are encouraged to take ED A101 Introduction to Education (3 credits) to learn more about the profession. Admission to the program occurs in two stages (see below) and admission to the internship is competitive. Criteria considered for admission to the internship include academic achievement, written and oral communication skills, and community involvement. The deadline for internship placement consideration is February 20.

Practica, internships, and other field placements are made only in cooperation with participating school districts. The school districts that work in cooperation with the College of Education reserve the right to request additional information and/or preparation from candidates, in accordance with the district’s established policies and practices. Cooperating districts also determine the number of available spaces and placements for candidates. Placements may become competitive if the number of applicants exceeds the number of spaces. Districts also reserve the right to refuse or terminate placements when candidates do not meet an acceptable standard of performance. Thus, while the University makes every effort to find appropriate field placements for students, admittance to a degree/certificate/endorsement program does not guarantee acceptance by cooperating school districts.

ADMISSION REQUIREMENTS

Admission to the University of Alaska Anchorage: Elementary Education Major

Applicants must complete the Admission to Baccalaureate Programs Requirements in Chapter 7, “Academic Standards and Regulations.” Application forms are available on the UAA website at:

http://www.uaa.alaska.edu/admissions

Admission to the Department of Teaching and Learning, College of Education: Elementary Education Major

Admission to the Department of Teaching and Learning is a prerequisite for all education course work with the exception of ED A101 Introduction to Education and ED A300 Philosophical and Social Context of American Education. In order to be admitted to the Department, students must:

1. Complete an application to the Department of Teaching and Learning by one of the following dates: March 1, August 1, or November 1.
2. Complete a minimum of 60 liberal studies credits, including all General Education Requirements, required for the degree (transfer credits may be used).
3. Have a cumulative GPA of 3.00.
4. Successfully complete the Praxis I exam. With the exceptions of ED A101 Introduction to Education and ED A300 Philosophical and Social Context of American Education, applicants may not enroll in education courses without passing this exam at the level established by the College of Education.
5. Provide evidence of a current negative TB skin test. Free tests are available at the UAA Student Health Center for current UAA students.

Note: Admission to the Department of Teaching and Learning is competitive. Qualified applicants are accepted on a space-available basis. Admission to the University as an Elementary Education major does not guarantee admission to the Department.

Admission to Elementary Internship

The Elementary Education Programs Admission Committee determines a candidate’s readiness to enroll in methods and the internship. The candidate must realize that requirements set forth below constitute minimum preparation, and it may be the judgment of the Committee that the candidate needs further work to develop content, methodology, or classroom experience.

1. Meet all the requirements for and be admitted to the Department of Teaching and Learning as an Elementary Education major.
2. Submit an application form for admission to internship status by February 20.
3. Submit one letter of recommendation from someone who can speak to the candidate’s potential as a future elementary teacher.
4. Demonstrate general content knowledge competency through successful completion of all liberal studies course work and a passing score on Praxis II: Elementary Content Knowledge.
5. Provide evidence of successful experiences working with children.
6. Interview.
7. Complete fingerprinting and criminal background check process.
8. Provide evidence of a current physical exam and negative TB skin test. These services are available free at the UAA Student Health Center.
9. Maintain student health insurance throughout internship. Candidates may purchase this insurance through UAA.

Note: Qualified applicants are accepted on a space-available basis. Admission to the Department of Teaching and Learning does not guarantee admission to the internship.

ACADEMIC PROGRESS

Satisfactory progress in the first internship is required for enrollment in the second internship. All Elementary Education major courses must be completed with a grade of “C” or higher in order to obtain an institutional recommendation for elementary teacher certification. In addition, those who seek the special education endorsement must complete the emphasis courses with a grade of “C” or higher to obtain an institutional recommendation for special education.

GRADUATION REQUIREMENTS

Candidates must complete the following graduation requirements:

A. GENERAL UNIVERSITY REQUIREMENTS

Complete the General University Requirements for All Baccalaureate Degrees listed at the beginning of this chapter.

B. GENERAL EDUCATION REQUIREMENTS

Complete the General Education Requirements for Baccalaureate Degrees listed at the beginning of this chapter.

C. LIBERAL STUDIES AREA

Complete the liberal studies area. These courses are selected to provide future elementary teachers with the skills and background knowledge in the various subjects they will be expected to teach. The selection is based on national and state standards for content preparation. Some of the liberal studies courses may also be used to meet General Education Requirements.

Oral and Written Communication Skills (9 credits):
Select one course from GER Oral Communication List 3
Select two courses from GER Written Communication List 6

Lifetime Wellness (2 credits):
PE A145 Principles of Health and Physical Activity 2

Liberal Studies Integrative Core (9 credits):
PHIL/LSIC A231 Truth, Beauty, and Goodness 3
LSIC A331 Power, Authority, and Governance 3
LSIC A332 Science, Technology, and Culture 3
D. MAJOR REQUIREMENTS

It is recommended that students complete ED A101 Introduction to Education prior to enrolling in the following major courses. Field experience in public schools is required as part of most courses.

1. Complete the following core courses:
   - ED A300 Philosophical & Social Context of American Education
   - ED A301 Foundations of Literacy and Language Development
   - ED A302 Foundations of Educational Technology
   - ED A303 Foundations of Teaching and Learning
   - EDSE A482 Inclusive Classrooms for All Children

2. Complete the following method courses. Concurrent enrollment in an internship required. See Admission to Elementary Internship.
   - ED A425 Teaching Reading in Elementary Schools
   - ED A426 Teaching Mathematics in Elementary Schools
   - ED A427 Teaching Social Studies in Elementary Schools
   - ED A428 Teaching Science in Elementary Schools
   - ED A429 Teaching Health Education in Elementary Schools
   - ED A430 Teaching Language Arts in Elementary Schools
   - ED A431 Creative Expression: Music, Art, and Drama for Elementary Teachers
   - ED A432 Physical Education for Elementary Classroom Teachers

3. Complete the following internships:
   - ED A495A Internship I
   - ED A495B Internship II

4. A total of 122 - 134 credits is required for the degree, of which 42 credits must be upper division.

INSTITUTIONAL RECOMMENDATION - ELEMENTARY TEACHER CERTIFICATION (K-6)

Following are the requirements for an institutional recommendation:

1. Major requirements completed with a grade of "C" or higher.
2. Cumulative GPA of 3.00.
3. Cumulative GPA of 3.00 in all major requirements.
5. College of Education's educational technology assessment satisfactorily completed.
6. Internships satisfactorily completed.
7. Baccalaureate degree conferred.

SPECIAL EDUCATION EMPHASIS

http://ed.uaa.alaska.edu/sped

The Special Education Emphasis is designed for individuals who desire initial professional preparation in special education. The program must be taken in conjunction with the Bachelor of Arts in Elementary Education or the Elementary Teacher Certification Only. Candidates who successfully complete the B.A. in Elementary Education or the Elementary Teacher Certification Only with the Special Education Emphasis will receive an institutional recommendation for a Type A teacher certification with endorsements in elementary (K-6) and special education (K-6).

1. Requirements for the Bachelor of Arts in Elementary Education or the Elementary Teacher Certificate programs must be completed in conjunction with the emphasis courses. While the special education endorsement is 24 credits, candidates will need to complete only 21 credits beyond the elementary education program requirements to receive the additional endorsement.
2. Complete the following emphasis courses:
   - EDSE A412 Curriculum & Strategies I: Low Incidence
   - EDSE A482 Inclusive Classrooms for All Children
   - EDSE A483 Language & Literacy: Assessment & Interventions
   - EDSE A484 Collaboration & Partnerships between Parents & Professionals
   - EDSE A490 Assessing Students with Disabilities
   - EDSE A492 Curriculum & Strategies II: High Incidence
   - EDSE A495A Beginning Internship in Special Education
   - EDSE A495B Advanced Internship in Special Education

* GER Social Sciences must be selected from two different disciplines.
INSTITUTIONAL RECOMMENDATION - SPECIAL EDUCATION ENDORSEMENT
Following are the requirements for an institutional recommendation:
1. Emphasis courses completed with a grade of "C" or higher.
2. Cumulative GPA of 3.00 in the Special Education Emphasis courses.
3. Internships satisfactorily completed.
4. Baccalaureate degree with the emphasis conferred.
5. Concurrent application for the Type A teaching certificate.

ELEMENTARY TEACHER CERTIFICATION ONLY-UNDERGRADUATE
Those individuals who already have a baccalaureate degree may obtain Elementary Teacher Certification Only by completing the following requirements.

Admission to the University of Alaska Anchorage: Elementary Teacher Certification Only
Applicants must complete the Baccalaureate Degree Programs Admission Requirements (Chapter 7, “Academic Standards and Regulations”). Application forms are available on the UAA website at: http://www.uaa.alaska.edu/admissions.

Admission to the Department of Teaching and Learning, College of Education: Elementary Teacher Certification Only
Admission to the Department of Teaching and Learning is a prerequisite for all education course work with the exceptions of EDA101 Introduction to Education and ED A300 Philosophical and Social Context of American Education. In order to be admitted to the Department of Teaching and Learning as an Elementary Teacher Certification Only candidate, applicants must meet the following requirements:
1. Complete a Department of Teaching and Learning application for admission to the Elementary Teacher Certification Only program by one of the following dates: March 1, August 1, or November 1.
2. Have a cumulative GPA of 3.00 for the baccalaureate degree.
3. Successfully complete the Praxis I exam and Praxis II: Elementary Content Knowledge exam. With the exceptions of ED A101 Introduction to Education and ED A300 Philosophical and Social Context of American Education, students may not enroll in education courses without passing these exams at the level established by the College of Education.
4. Provide evidence of a current negative TB skin test. Free tests are available at the UAA Student Health Center for current UAA students.
5. Internships satisfactorily completed.

Note: Admission to the Department of Teaching and Learning is competitive. Qualified applicants are accepted on a space-available basis. Admission to the University as an Elementary Education major does not guarantee admission to the Department.

Retirement
The Elementary Education Programs Admission Committee determines a candidate’s readiness to enroll in methods and the internship. The candidate must realize that requirements set forth below constitute minimum preparation, and it may be the judgment of the Committee that the candidate needs further work to develop content, methodology, or classroom experience.
1. Meet all the requirements for and be admitted to the Department of Teaching and Learning as an Elementary Teacher Certification Only candidate.
2. Complete the following core courses:
   - ED A300 Philosophical & Social Context of American Education
   - ED A301 Foundations of Literacy and Language Development
   - ED A302 Foundations of Educational Technology
   - ED A303 Foundations of Teaching and Learning
   - EDSE A482 Inclusive Classrooms for All Children
3. Complete the following method courses. Concurrent enrollment in an internship required. See Admission to Elementary Internship.
   - ED A425 Teaching Reading in Elementary Schools
   - ED A426 Teaching Math in Elementary Schools
   - ED A427 Teaching Social Studies in Elementary Schools
   - ED A428 Teaching Science in Elementary Schools
   - ED A429 Teaching Health Education in Elementary Schools
   - ED A430 Teaching Language Arts in Elementary Schools
   - ED A431 Creative Expression: Music, Art and Drama for Elementary Classroom Teachers
   - ED A432 Physical Education for Elementary Classroom Teachers
4. Complete the following internships:
   - ED A495A Internship I
   - ED A495B Internship II

INSTITUTIONAL RECOMMENDATION - ELEMENTARY TEACHER CERTIFICATION (K-6)
Following are the requirements for an institutional recommendation:
1. Certification courses completed with a grade of “C” or higher.
2. Cumulative GPA of 3.0 in the Elementary Teacher Certification Only courses.
3. Passing scores on the Praxis I and II exams.
4. College of Education’s educational technology assessment satisfactorily completed.
5. Internships satisfactorily completed.

FACULTY
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The College of Health and Social Welfare is comprised of the Department of Health Sciences, Human Services, the Justice Center, School of Nursing and the School of Social Work. The College offers a variety of certificate, undergraduate, and graduate degree options for students who are attracted to people-oriented careers. It also provides a special opportunity for cross-disciplinary studies as they relate to the human aspects of our culture, and helps to prepare graduates for the increasingly integrated approaches to service delivery demanded by society.

Professional programs housed within this college share a common interest in issues that impact the development, health, and well being of individuals and communities. The instructional, service and scholarship efforts of the faculty in the various curricula are enhanced and supported by collaborative research and service activities in the Center for Alcohol and Addiction Studies, the Center for Human Development, the Alaska Center for Rural Health, and the Institute for Circumpolar Health Studies. Together, through multi-disciplinary approaches, the schools, departments, centers and institutes take direct action to address the needs and potentials of Alaska’s peoples and communities.

DEPARTMENT OF HEALTH SCIENCES

http://hs.uaa.alaska.edu/dept
Diplomacy Building (DPL), Room 404, (907)786-6565

BACHELOR OF SCIENCE, HEALTH SCIENCES

Physician Assistant Track

The Bachelor of Science in Health Sciences Degree (BSHS), with a Physician Assistant Track is available to 1) applicants with professional health care experience (a minimum of two (2) years recent, full-time, hands on experience in the direct delivery of medical care OR current professional credentials and two (2) or more years of recent, full-time experience in an allied health field) seeking a new career as a Physician Assistant (PA), 2) applicants without health care experience seeking a bachelor’s degree while they gain the full-time health care work experience required for admission to the MEDEX Northwest Physician Assistant Program, 3) Alaskan MEDEX Northwest Physician Assistant Program students seeking a bachelor’s degree in conjunction with their MEDEX PA certificate, 4) MEDEX Northwest Physician Assistant Program graduates seeking a bachelor’s degree, and 5) graduates of other accredited PA programs seeking a bachelor’s degree. The BSHS degree offers students more career opportunities such as administrative or teaching positions and is a gateway for advanced degrees such as a Master of Public Health. These advanced degrees allow a Physician Assistant to expand career options and increase professional satisfaction.

Physician Assistant Students Enrolled at MEDEX

The BSHS Degree, with a Physician Assistant Track may be awarded in conjunction with the MEDEX Program at the University of Washington. Students are admitted at both UAA and UW and must satisfactorily complete PA courses at UW in their junior year and Clerkship courses at UAA in their senior year.
MEDEX Northwest Physician Assistant Program

Up to six students from Alaska may be admitted to the University of Washington MEDEX program annually, in accordance with the joint selection process established in the collaborative agreement between UAA and UW. Applicants are evaluated on their previous clinical experience and their commitment to practice in Alaska, particularly in under-served areas, in addition to their overall academic performance in the pre-physician assistant curriculum.

Students admitted into the MEDEX program spend their junior year of the PA program at one of the UW training sites (Seattle, Spokane or Yakima), where they receive intense clinical and didactic instruction. The senior year is spent in Alaska, consisting of practicum (Clerkship) placement. It is recommended that PA students complete the UAA BSHS General Education Requirements as early as possible. The practicum year corresponds to UW’s year of field placement and supervision, beginning in September and ending in early September of the following year. The clinical placements call for 35-40 hours a week in supervised clinical training and 10-20 hours a week in self-study. Students are placed in Alaska training sites currently utilized by the MEDEX program.

At the completion of the PA program, students are eligible to sit for the National Certifying Examination for Physician Assistants. The University of Washington School of Medicine grants a Physician Assistant Certificate upon successful completion of the PA program. Upon successful completion of degree requirements (see below), the University of Alaska Anchorage awards a Bachelor of Science Degree in Health Sciences.


ADMISSION REQUIREMENTS

Complete the Admission to Baccalaureate Programs Requirements in Chapter 7, “Academic Standards and Regulations.” Students who declare a Health Sciences major and do not meet the additional admission requirements listed below, but do meet the University’s general admission requirements, will be admitted as Health Sciences pre-majors.

Students without health care experience should note that admission to the MEDEX program requires a minimum of two (2) years of recent, full-time, hands-on experience in the direct delivery of medical care to patients in addition to specific academic requirements. (See “NOTE” below, under Graduation Requirements). Students should meet with an advisor in the Health Sciences Department to discuss what type of work experience will meet this admission requirement.

For more information about the MEDEX Northwest Physician Assistant Program admission requirements contact: [http://www.washington.edu/medical/som/depts/medex/admissions](http://www.washington.edu/medical/som/depts/medex/admissions).

Pre-Major Admission

Students admitted, as pre-majors must contact an advisor in the Health Sciences Department and plan their academic schedule carefully in order to satisfy both the UAA BSHS admission and degree requirements and the MEDEX admission and program requirements.

FULL ADMISSION

To apply for full admission to the BSHS program, students must:

1. Have received formal notification of admission to the MEDEX program or have graduated from an accredited PA program.
2. Complete a Change of Major form requesting a change of admission status from pre-major to full major.

PHYSICIAN ASSISTANTS ADMISSION

Students who have graduated from the MEDEX program or another accredited PA program must meet the Baccalaureate Degree Programs Admission Requirements at the beginning of this chapter and must submit official transcripts and official documentation of successful PA program completion.

ACADEMIC PROGRESS

Students in pre-major admission status who are unsuccessful after three attempts to be admitted into the MEDEX program will be removed from the BSHS degree program. MEDEX students who do not successfully complete the MEDEX program will be removed from the BSHS program.

GRADUATION REQUIREMENTS

Students must complete the following requirements:

A. General University Requirements

All students, with the exception of the following, must complete all General University Requirements for All Baccalaureate Degrees at the beginning of this chapter.

In conjunction with a collaborative agreement between the University of Washington MEDEX program and UAA, students who hold a MEDEX PA certificate may use their MEDEX courses to meet the General University Requirements that 24 upper division credits must be completed in residence at UAA and 12 credits in the major must be completed in residence at UAA. These students will, however, be required to meet all other General University Requirements including completion of at least 30 credits in residence at UAA.

B. General Education Requirements

Complete the General Education Requirements for Baccalaureate Degrees at the beginning of this chapter.

NOTE: Students seeking admission to the MEDEX program must take ENGL A111, ENGL A212, BIOL A111/L, BIOL A112/L and CHEM A103/L or BIOL A102 or BIOL A240. PSY A111 or PSY A150 is also highly recommended. (The MEDEX program requires a minimum grade of B- in each course applied toward the UW admission requirements.)

C. Major Requirements

1. Complete the following course:
   - HS A490 Selected Topics: Health Care Issues in Alaska (1-6) 3

2. MEDEX students concurrently admitted to the BSHS degree program at UAA and the UW MEDEX program must complete the following:
   - HS A463 Physician Assistant Clinical Clerkship I 12
   - HS A464 Physician Assistant Clinical Clerkship II 12
   - HS A465 Physician Assistant Family Practice Clerkship I 12
   - HS A466 Physician Assistant Family Practice Clerkship II 12

3. A total of 120 credits are required for the degree, of which 42 must be upper division.

FACULTY

John Riley, Instructor, Coordinator, Physician Assistant Program, AFJOR@uaa.alaska.edu
The Department of Human Services offers both an Associate of Applied Science degree in Human Services preparing students for entry-level employment and a Bachelor of Human Services practitioner’s degree which holds as its mission, the preparation of students to work effectively in any paraprofessional counseling and human service practice. The AAS is articulated with the baccalaureate degree in a two plus two sequence. Employing a multidisciplinary approach, the degree objective is to provide students with a conceptual and skill foundation suitable for successful Human Service practice in both urban and rural settings. Human Service practice requires multicultural understanding, respect of clients through a collaborative relationship founded upon a developmental model. Specific skill courses combined with practica are strengthened through conceptual course work in Human Services, Social Work, Sociology and Psychology. The program also offers specialized areas in substance abuse, disabilities, diversity issues, general human services, and family and youth. These are coordinated with practicum placements to give students first hand experience in their desired specialty.

An important part of the program is Human Services advising. Prospective students should contact a Human Services advisor before entering the program. Students are assigned an academic advisor when they declare the Human Services Major. Entrance into the Human Services Practicum requires admission to the degree, successful completion of specified courses and recommendation by the academic advisor. Contact the Human Services Department at 786-6437 for an appointment with an advisor.

Both the Human Services AAS and BHS are accredited by the Council for Standards in Human Services Education.

**NOTE: Each Human Service degree (Associate of Applied Science and Bachelor of Human Services) requires a 6 credit emphasis area. BHS students may complete 6 credits from a different emphasis area or an additional 6 credits from the emphasis area used for the AAS.**

**General Human Services Emphasis**
Complete 6 credits from the following:
- HUMS A140 Family Mediation (3)
- HUMS/PSY A153 Human Relations (3)
- HUMS A256 Groups and Organizations (3)
- HUMS A350 Men and Masculinity (3)
- PSY A245 Child Development (3)
- PSY A261 Research Methods in Psychology (4)
- PSY A345 Abnormal Psychology (3)
- SOC A202 The Social Organization of Society (3)
- SOC A242 An Introduction to Marriage, Family and Intimate Relationships (3)
- SOC A246 Adolescence (3)
- SOC/PSY A453 Application of Statistics to the Social Sciences (3)

**Substance Abuse Emphasis**
Complete 6 credits from the following:
- HUMS A122 Substance Abuse as a Contemporary Problem (3)
- HUMS A123 Public Education and Prevention in Substance Abuse (3)
- HUMS A124 Introduction to Physiology and Pharmacology of Substance Abuse (3)
- HUMS A226 Intervention Continuum in Substance Abuse Counseling (3)
- HUMS A416 Substance Abuse and the Older Adult (3)
- HS A350 Drugs and Drug-Taking Behavior (3)
- HS A381 Substance Abuse Treatment (3)
- SWK A471 Addictions and Social Work (3)

**Family and Youth Emphasis**
Complete 6 credits from the following:
- HUMS A140 Family Mediation (3)
- HUMS A350 Men and Masculinity (3)
- HUMS A416 Substance Abuse and the Older Adult (3)
- PSY A245 Child Development (3)
- SOC A242 An Introduction to Marriage, Family and Intimate Relationships (3)
- SOC A246 Adolescence (3)
**Disabilities Emphasis**
Complete 6 credits from the following:
- ASL A101 Elementary Sign Language I (3)
- ASL A102 Elementary Sign Language II (3)
- ASL A201 Intermediate Sign Language I (3)
- PSY A445 Strategies of Behavior Change (3)
- PSY A455 Best Practices-Mental Health (3)

**Diversity Issues Emphasis**
Complete 6 credit from the following:
- AKNS A101 Alaska Native Languages I (4)
- AKNS A102 Alaska Native languages II (4)
- AKNS A109 Alaska Native Language Orthography (4)
- AKNS A201 Native Perspectives (3)
- AKNS A492 Seminar: Cultural Knowledge of Native Elders (3)
- ANTH A270 Cross-Cultural Perspectives on Women (3)
- HUMS A350 Men and Masculinity (3)
- HUMS A416 Substance Abuse and the Older Adult (3)
- WS A200 Introduction to Women's Studies (3)

3. **Choose 12 credits of electives. Consultation with faculty advisor recommended.**

4. **A total of 60 credits is required for the degree.**

**BACHELOR OF HUMAN SERVICES**

**ADMISSION REQUIREMENTS**

Complete the Admission to Baccalaureate Programs Requirements in Chapter 7, “Academic Standards and Regulations.” Students must complete an Associate of Applied Science, Human Services degree from an accredited institution recognized by UAA.

**GRADUATION REQUIREMENTS**

Students must complete the following graduation requirements:

**A. GENERAL UNIVERSITY REQUIREMENTS**
Complete the General University Requirements for All Baccalaureate Degrees listed at the beginning of this chapter.

**B. GENERAL EDUCATION REQUIREMENTS**
Complete the General Education Requirements for Baccalaureate Degrees listed at the beginning of this chapter.

**C. MAJOR REQUIREMENTS**

1. Complete the following Bachelor of Human Services core requirements:*
- HUMS A321 Diversity Issues in Human Services Practice (3)
- HUMS A322 Service Coordination in Human Services Practice (3)
- HUMS A333 Alternative Dispute Resolution (3)
- HUMS A412 Ethical Issues in Human Services Practice (3)
- HUMS A414 Rural Treatment Strategies for Human Service Professionals (3)
- HUMS A417 Substance Abuse Counseling for Human Service Professionals (3)
- HUMS A424 Advanced Counseling for Human Service Professionals (3)
- HUMS A434 Group Facilitation for Human Service Professionals (3)
- HUMS A461 Crisis Intervention (3)
- HUMS A495A Human Services Practicum III (3)
- HUMS A495B Human Services Practicum IV (3)

*Note: Cannot be used in emphasis areas.

2. Complete an additional 6 credits (to total 12 credits) from the AAS Major Requirements Emphasis Areas.

**Note:** Each Human Service degree (Associate of Applied Science and Bachelor of Human Services) requires a 6 credit emphasis area. BHS students may complete 6 credits from a different emphasis area or an additional 6 credits from the emphasis area used for the AAS.

3. **A total of 120 credits is required for the degree, of which 42 credits must be upper-division.**

**MINOR, ADDICTION STUDIES**

The Addiction Studies Minor, coordinated by the Human Services Department, provides students with the opportunity to gain knowledge about the process and effects of addictive behaviors, and their treatment. By providing students with contemporary information, and an opportunity to select from an array of courses that meet their professional interests and goals, the minor prepares students for entry-level positions in treatment programs, substance abuse agencies, or for graduate study in this or related areas. The minor also enhances the capabilities of students in human service fields, such as human services, social work, nursing, justice, and psychology, to acquire knowledge about substance abuse, a major factor in many human dilemmas. Course work may also apply toward certification from the State of Alaska as a substance abuse counselor. Please note that additional course work and practicum hours may be required for this certification.

The Addiction Studies minor requires a total of 18 credits, of which a minimum of nine must be upper-division.

1. **Complete 6 credits from the following courses:**
- HS A350 Drugs and Drug-Taking Behavior (3)
- HUMS A122 Substance Abuse as a Contemporary Problem (3)
- HUMS A226 Intervention Continuum in Substance Abuse Counseling (3)

2. **Complete 12 credits from the following:**
- HUMS A121 Introduction to Substance Abuse Treatment (3)
- HUMS A480 Contemporary Issues in Addiction Studies (1-3)
- HUMS A123 Public Education and Prevention in Substance Abuse (3)
- HUMS A124 Introduction to Physiology and Pharmacology of Substance Abuse (3)
- HUMS A416 Substance Abuse and the Older Adult (3)
- HUMS A417 Substance Abuse Counseling for Human Services Professionals (3)
- JUST A110 Introduction to Justice (3)
- NS A428 Nursing the Chemically Dependent Client (3)
- SWK A471 Addictions and Social Work (3)

3. **A total of 18 credits is required for the minor.**

**FACULTY**

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**JUSTICE**

http://justice.uaa.alaska.edu
Social Sciences Building (SSB), Room 306, (907) 786-1810

The Justice Center has statewide responsibility for higher education and research related to the areas of crime, law, and the administration of justice. The Center offers a baccalaureate degree program for students interested in the justice area. In addition, a Paralegal Studies Certificate is provided for qualified students who wish to pursue a paralegal career.

Justice faculty have professional research and service obligations beyond classroom teaching. The Center is an organized research unit which, at its own initiative or in response to requests from outside the university,
conducted research and public education programs. Efforts are made to ensure that all undergraduate students who major in Justice have opportunities to work with faculty members on Justice Center research and service projects.

For those who wish to further their education in the justice area, the Justice Center offers a Criminal Justice emphasis in the Master of Public Administration degree. Refer to Chapter 10 for more information.

JUSTICE RESEARCH HONORS

The Justice Center recognizes those undergraduate students who develop exceptional social science research skills by awarding them Justice Research Honors and noting the award on their permanent university transcript.

Students majoring in Justice are eligible to graduate with Justice Research Honors upon satisfactory completion of all of the following requirements:

1. Meet the requirements for a BA degree in Justice.
2. Meet the requirements for membership in the national justice honor society, Alpha Phi Sigma (including, 3.2 GPA in UAA Justice Courses, 3.0 overall).
3. Complete the following courses with a grade of B or better:
   - Just A400 - Advanced Research Methods
   - Just A401 - Inferential Data Analysis in Justice
   - Just A488 - Research Practicum
4. Students intending to graduate with Justice Research Honors must notify the Justice Center Undergraduate Program Coordinator, in writing, on or before the date they file their Application for Graduation with the Enrollment Services Office.

BACHELOR OF ARTS, JUSTICE

The Bachelor of Arts degree in Justice satisfies the educational prerequisites for a variety of administrative, operational, research, and planning positions related to crime, law and the administration of justice. Those graduates with records of high achievement in the Justice undergraduate program are prepared to pursue advanced education in graduate and professional degree programs at the University of Alaska Anchorage and other universities.

Graduates who receive a Bachelor of Arts degree in Justice have both broad educational preparation for productive citizenship and the specialized knowledge and skills required for the evaluation, administration and improvement of police, court, and correctional policies and organizations.

ADMISSION REQUIREMENTS

Complete the Admission to Baccalaureate Programs Requirements in Chapter 7, “Academic Standards and Regulations.”

GRADUATION REQUIREMENTS

Students must complete the following graduation requirements:

A. GENERAL UNIVERSITY REQUIREMENTS

Complete the General University Requirements for All Baccalaureate Degrees listed at the beginning of this chapter.

B. GENERAL EDUCATION REQUIREMENTS

Complete the General Education Requirements for Baccalaureate Degrees listed at the beginning of this chapter.

C. MAJOR REQUIREMENTS

1. Complete the following required courses:
   - JUST A110 Introduction to Justice 3
   - JUST A200 Introduction to Research Methods 3
   - JUST A201 Justice Data Analysis 3
   - JUST A221 Justice Organization and Management 3
   - JUST A250 Development of Law 3
   - JUST A251 Criminology 3
   - JUST A330 Justice and Society 3

   *Upper-division Justice electives 15
   *Justice electives, any level 6

*Paralegal Studies Certificate courses can be counted as Justice electives.

2. Meet the requirements for membership in the national justice honor society. Specific requirements for minors are listed in the catalog by school or department. 18-21
3. All Justice majors must take the Justice Exit Exam. There is no minimum score required for graduation.
4. A total of 120 credits is required for the degree of which 42 credits must be upper-division.

MINOR, JUSTICE

Students majoring in another subject who wish to minor in Justice must complete the following requirements. A total of 18 credits is required for the minor, 9 of which must be upper-division.

   - JUST A110 Introduction to Justice 3
   - JUST A251 Criminology 3
   - Upper-division Justice electives 9
   - Justice electives, any level 3

FACULTY

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PARALEGAL STUDIES

http://justice.uaa.alaska.edu
Social Sciences Building (SSB), Room 306, (907) 786-1810

CERTIFICATE, PARALEGAL STUDIES

The Paralegal Certificate Program is approved by the American Bar Association.

PROGRAM GOALS

1. Broad-based knowledge achieved through general college education.
2. Exceptionally strong competency in critical thinking and in written and oral communication skills.
3. Comprehensive understanding of ethical responsibilities as assistants to attorneys, governed by the rules of professional responsibility.
4. Legal vocabulary and understanding of procedure required to perform paralegal duties in a civil practice.
5. Operational knowledge of the interviewing and investigatory techniques required for paralegal performance.
6. Command of skills required for both law library and computerized legal research, and for memoranda of legal analysis
7. Knowledge of the variety of legal specialties performed by paralegals.
8. Practical experience in a law office or agency that allows students to apply classroom skills.
ADMISSION REQUIREMENTS

Students must have completed a total of six credits in ENGL A111 (or equivalent), A211, A212, A213, A311, A312, or A414 with a minimum grade of “B” in each class. Students must have a 2.00 overall GPA to be admitted to the Paralegal Studies Certificate Program. Students must apply and be admitted to the program at the Anchorage campus before completing 12 credits of the paralegal core curriculum.

Note: Special admission requirements for this certificate are enforced and certificates cannot be completed at extended campuses. Certain courses required for the certificate must be taken only at the Anchorage campus.

Students are encouraged to complete a BA or Associate of Arts in conjunction with the Paralegal Certificate. Paralegal courses fulfill the Justice elective requirements for the Justice BA and the Applied Studies requirements for the Associate of Arts. Students who have already completed a degree at an accredited institution whose composition courses meet UAA’s admission requirements for the Associate of Arts. Students who have already completed a degree must complete the Paralegal core courses. Transfer credit for some core courses may be determined at the departmental level.

Students interested in the Paralegal Studies Certificate Program should consult a faculty advisor in the Justice Center before enrolling in paralegal courses.

CERTIFICATE REQUIREMENTS

1. Complete 6 credits in Written Communications (ENGL A111, A211, A212, A213, A214, A311, A312, or A414) with a minimum grade of “B” in each class.
2. Complete the following required core courses:
   - PARL A101 Introduction to Law 3
   - PARL A215 Paralegal Studies 3
   - PARL A235 Factual Investigation and Interviewing 2
   - PARL A236 Ethics and Paralegals 1
   - PARL A238 Civil Procedure 3
   - PARL A256 Legal Research I 3
   - PARL/JUST A352 Substantive Criminal Law (3)
   - or
   - PARL/JUST A354 Criminal Procedure (3)
   - or
   - PARL A362 Commercial Law (3)
   - or
   - Other upper division law course from Justice curriculum with paralegal coordinator approval (3)
   - PARL A375 Litigation 3
   - PARL A456 Advanced Legal Analysis and Writing 4
   - PARL A470 Law of Government Regulation 3
   - JUST A495 Internship (1-6) 3
3. Complete at least 20 credits, in addition to the preceding courses, from the General Education Requirements for Baccalaureate Degrees list or from courses that meet the general requirements in humanities, social sciences, and math/natural sciences for the associate degree.
4. Complete 3 credits of any elective at the 100-level or above.
5. Students must achieve a minimum grade of “C” in each paralegal core course to receive the certificate. Courses may be repeated to improve grades according to University policy.
6. A total of 60 credits is required for the certificate.

Note: Graduates are not authorized to provide direct legal services to the public. The Paralegal Certificate Program is a training program for paralegals who are authorized to perform substantive legal work under the supervision of an attorney. The program does not train lawyers or legal administrators.

FACULTY

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SCHOOL OF NURSING

http://nursing.uaa.alaska.edu

Professional Studies Building, Room 103, (907) 786-4550

The mission of the Nursing program is to educate students for productive citizenship, personal growth, and professional nursing practice. The department offers potential students interested in becoming qualified to practice as a Registered Nurse two options: the Associate of Applied Science degree in Nursing and the Bachelor of Science degree in Nursing Science. The programs are designed to reflect Alaska’s needs and health care delivery systems, although graduates are prepared for beginning practice positions in other geographic areas as well. A baccalaureate completion program is available for individuals who already hold the RN license in Alaska. The nursing programs are approved by the Alaska Board of Nursing and accredited by the National League for Nursing Accreditation Commission (61 Broadway, New York, NY 10006: (212) 363-5555 ext 153). Graduates of the programs are eligible to write the National Council Licensure Examination (NCLEX) for licensure as a Registered Professional Nurse in Alaska and other nursing jurisdictions. The baccalaureate program also provides students with the academic base for graduate study in nursing.

Advising sessions are available to interested students. Times and locations are recorded on (907) 786-4560.

CERTIFICATE, PRACTICAL NURSING

Graduates of the Practical Nursing Certificate Program are prepared to provide basic nursing care in structured care settings under the supervision of a registered nurse or other authorized licensed health provider. Students acquire theoretical concepts by completing a series of computer based lessons, coupled with weekly class discussions; simultaneously, clinical learning experiences under the direct supervision of faculty, reinforce theoretical learning and facilitate development of clinical skills relevant to the legal scope of practice of the practical nurse. Graduates are eligible to sit for the national practical nurse licensing examination (NCLEX-PN) and are prepared for initial employment in hospitals, clinics, and long-term care settings.

ADMISSION REQUIREMENTS

Satisfy the Admission to Certificate Requirements in Chapter 7, “Academic Standards and Regulations.”

Students may complete the Practical Nursing Certificate in one calendar year of full time study. Admission is competitive and is based on consideration of high school grade point average, assessment scores in reading and mathematics on an approved placement test, and prior experience in health care. Students are encouraged to submit application to the University and complete placement testing by June to ensure complete processing by
October 1. In order to have a student file ranked for possible admission to the Practical Nursing Certificate Program, the following items must be submitted or completed by August 1:

1. UAA Application for Admission, including transcripts from high school or GED and from prior college work;
2. Appropriate Reading score on a UAA approved placement test;
3. Appropriate Math score on a UAA approved placement test;
4. Documented advising meeting with a member of the practical nurse program faculty (can be completed by phone or in person);
5. Completed School of Nursing application;
6. Three letters of reference mailed directly by the writer to the Practical Nursing Certificate Program.

Once admitted to the Practical Nursing Certificate program, students are required to provide the following before actually beginning clinical course work:

1. Immunity to rubella and rubella, confirmed by titer;
2. Immunity to Hepatitis B, confirmed by titer or documentation to having received first immunization in the three-shot series (and second immunization if sufficient time since first has passed); students are required to complete the immunization series on schedule during the program;
3. Documentation of having completed first Hepatitis A immunization in the two-shot series (series must be completed on schedule during the program);
4. Freedom from active tuberculosis, documented by negative PPD skin test or by health exam by a nurse practitioner, physician, or physician assistant (PPD must be repeated annually and must be repeated prior to the start of any term if it would expire during the course of that term);
5. Documentation of having had an HIV test; results should not be provided to the School of Nursing (required annually; must be repeated prior to start of any term in which the annual review would normally expire);
6. Results of a national level criminal background check completed within the six months prior to the start of clinical courses;
7. Current Health Provider Certification in Cardiopulmonary Resuscitation for infants, children, and adults; must be current through the semester and must be repeated prior to start of any term during which certification expires;
8. Professional liability insurance in the amount of $1 million/$3 million; insurance must be maintained throughout duration of the program. Specific information regarding acceptable professional liability insurance policies may be obtained directly from the Program.

Students enrolled in clinical courses must provide their own transportation to clinical assignments and will be required to purchase uniforms and specialized equipment. The School assumes no responsibility for illnesses and injuries experienced by students in conjunction with their clinical experience; students who are injured while completing clinical assignments are responsible for all associated medical costs. Students are strongly encouraged to maintain personal medical insurance.

**ACADEMIC PROGRESS**

In order to progress in the Practical Nursing Certificate program, students must earn a satisfactory grade (C or higher or P) in all required courses. A student who is unable to earn a satisfactory grade in a required course during their initial enrollment may attempt to earn a satisfactory grade one additional time on a space-available basis. Students who are enrolled in one course must be concurrently enrolled in all courses with that common number (NUPN A101 and NUPN A101L; NUPN A110 and NUPN A110L; NUPN A112 and NUPN A112L; NUPN A113 and NUPN A113L). The three term clinical sequence must be completed within two years; students who have a progression delay or more than one year will be required to demonstrate current knowledge and clinical competence.

**GENERAL UNIVERSITY REQUIREMENTS**

Complete the General University Requirements for Certificates located at the beginning of this Chapter.

**MAJOR REQUIREMENTS:**

1. Complete the following required courses:
   - NUPN A101 Fundamental Concepts and Skills for Practical Nursing 7
   - NUPN A101L Fundamental Concepts and Skills for Practical Nursing Lab 5
   - NUPN A105 Human Anatomy and Function (3) 3/8
   - BIOL A111 Human Anatomy and Physiology I (4)
   - BIOL A112 Human Anatomy and Physiology II (4) with grade of C or higher
   - NUPN A110 Adult Medical-Surgical Nursing for Practical Nurses 5
   - NUPN A110L Adult Medical-Surgical Nursing for Practical Nurses Lab 3
   - NUPN A112 Mother-Baby Nursing for Practical Nurses 3
   - NUPN A112L Mother-Baby Nursing for Practical Nurses Lab 2
   - NUPN A113 Nursing of Children for Practical Nurses 3
   - NUPN A113L Nursing of Children for Practical Nurses Lab 2
   - NUPN A115 Concepts in Mental Health for Practical Nurses 1
   - NUPN A116 Role Transition to LPN 1
   - NUPN A118L Integrated Clinical Practicum for Practical Nurses 2

2. A total of 37 credits is required for the certificate.

**ASSOCIATE OF APPLIED SCIENCE, NURSING**

Graduates of the Associate of Applied Science, Nursing program are prepared to use the nursing process to provide effective nursing services to individuals receiving care in inpatient settings and in structured outpatient settings. The academic program provides students with a closely related mix of theory and clinical practice; students gain experience in hospitals, nursing homes, clinics, and community agencies.

**ADMISSION REQUIREMENTS**

Students may complete the Associate of Applied Science, Nursing program in two academic years (four semesters); admission to the clinical sequence is determined by a ranking process, admission is selective, and admission requirements must be completed prior to February 1 (see items 1-6 below). Students are encouraged to submit application to the University by August to ensure complete processing of application and transcript evaluation by February 1. Students are encouraged to complete co-requisite courses while waiting for admission to the clinical sequence.

In order to have a student file ranked for possible admission to the nursing sequence, the following items must be completed no later than February 1:

1. UAA Certificate of Admission from Enrollment Services, including transcripts from both high school/GED and college, with transcript evaluations (if any). Documentation from transcripts must show successful completion of the following courses with grades of 2.00 °C or above: Algebra, Biology with laboratory, and Chemistry with laboratory. Courses may have been taken at the high school or college-level. Equivalent college-level courses in lieu of high school are: MATH A055, BIOL A102 and BIOL A103, CHEM A055.
2. Student attends an advising session with the Coordinator of Student Affairs, School of Nursing, (call (907) 786-4560 for a recorded message).
3. School of Nursing Application and Confidential Required Information form sent to the Coordinator of Student Affairs, School of Nursing.
4. Three letters of reference sent to the Coordinator of Student Affairs, School of Nursing.
5. Upon completion of items 1-4, student has an interview with a member of the AAS Admissions Committee.
6. Take the Nurse Entrance Test (NET) through Advising and Counseling (call (907) 786-4500 for specific dates and to sign up).
7. Upon completion of items 1-6, student's file is ranked based on a point system.
Please contact department for further details. Students are contacted in March with the results.

Once admitted to associate degree clinical nursing courses, students are required to provide the following before actually beginning clinical course work:

1. Evidence of:
   a. Immunity to rubella and rubeola, confirmed by titer;
   b. Immunity to Hepatitis A and Hepatitis B, confirmed by titer (first semester clinical students may be in the process of completing the immunization series; for those students, documentation of immunity by titer is required prior to entry into second year courses);
   c. Immunity to chicken pox documented by history, titer or current immunization;
   d. Diphtheria/tetanus vaccination within the past ten years (with booster required at the time of expiration);
   e. Freedom from active tuberculosis, documented annually by negative PPD skin test or by health exam by a nurse practitioner, physician, or physician’s assistant;
   f. Documentation of HIV testing annually (results not required).

2. Current Health Provider Certification in Cardiopulmonary Resuscitation for infants, children, and adults. First year students will have until the 3rd week of the semester to complete this certification which then must be kept current until graduation.

3. Professional liability insurance in the amount of $1 million/$3 million; insurance must be maintained throughout the duration of the student’s enrollment in clinical nursing courses. Specific information regarding acceptable professional liability insurance policies may be obtained directly from the Program.

4. Results of a national level criminal background check.

Students enrolled in clinical courses must provide their own transportation to clinical assignments and will be required to purchase uniforms and specialized equipment. The School assumes no responsibility for illnesses and injuries experienced by students in conjunction with their clinical experiences; students who are injured while completing clinical assignments are responsible for all associated medical costs. It is strongly recommended that students maintain personal medical insurance.

**ACADEMIC PROGRESS**

In order to progress within the Associate of Applied Science, Nursing program, students must earn a satisfactory grade (C or higher or P) in all nursing courses. Students who are unable to earn an acceptable grade in a nursing course during their initial enrollment may attempt to earn a satisfactory grade one additional time on a space available basis. Students enrolled in one course must be concurrently enrolled in all courses with that common number (NURS A120 and NURS A120L; NURS A125 and NURS A125L; NURS A220 and NURS A220L; NURS A222 and NURS A222L; NURS A225 and NURS A225L; NURS A250 and NURS A250L).

The four semester clinical course sequence, which begins with NURS A120/120L must be completed within four years.

**GENERAL UNIVERSITY REQUIREMENTS**

1. Complete the General University Requirements for Associate Degrees located at the beginning of this chapter.

2. Complete the Associate of Applied Science General Degree Requirements (15 credits) located at the beginning of this chapter. At least 3 of the 6 credits of general requirements must be a social science course.

**MAJOR REQUIREMENTS**

1. Complete the following required courses:
   - BIOL A111 Human Anatomy and Physiology I 4
   - BIOL A112 Human Anatomy and Physiology II 4
   - BIOL A240 Introductory Microbiology for Health Sciences 4
   - DN A203 Normal Nutrition 3
   - NURS A120 Nursing Fundamentals Lab 4
   - NURS A125 Adult Nursing I 3
   - NURS A125L Adult Nursing I Lab 4
   - NURS A180 Basic Nursing Pharmacology 3
   - NURS A220 Perinatal Nursing 2
   - NURS A220L Perinatal Nursing Lab 2
   - NURS A221 Advanced Parenteral Therapy Lab 1
   - NURS A222 Pediatric Nursing 2
   - NURS A222L Pediatric Nursing Lab 2
   - NURS A225 Adult Nursing II 3
   - NURS A225L Adult Nursing II Lab 3
   - NURS A250 Psychiatric Nursing 2
   - NURS A250L Psychiatric Nursing Lab 2
   - NURS A255 Staff Nurse: Legal, Ethical, and Organizational Issues 1
   - PSY A150 Life Span Development 3

2. A total of 70 credits is required for the degree.

**ASSOCIATE OF APPLIED SCIENCE, NURSING LICENSED PRACTICAL NURSE OPTION**

Licensed Practical Nurses may complete the AAS Nursing Program in three semesters. Admission to the clinical sequence is selective and determined by a ranking process. Students are encouraged to complete co-requisite courses while waiting to qualify for admission to the clinical sequence.

**ADMISSION REQUIREMENTS**

Student files entered into the admission ranking process must include documentation of the following by February 1st:

1. UAA Certificate of Admission from Enrollment Services, including high school transcripts or GED certificate and transcripts of all college work, together with UAA transcript evaluations (if needed). Transcripts must provide evidence of completion of the following courses at the high school or college level with grades of “C” (2.00) or higher: Algebra, Biology with laboratory, and Chemistry with laboratory. Students may use courses equivalent to the following UAA courses in lieu of work at the high school level: MATH A055 (Algebra), BIOL A102 and A103 (Biology) and CHEM A055 (Chemistry).

2. Successful completion of or concurrent enrollment in the following college courses or their equivalents:
   a. BIOL A111 Anatomy and Physiology I
   b. ENGL A111 Methods of Written Communication
   c. PSY A150 Life Span Development

3. Current active Alaska LPN license.

4. Completed School of Nursing Application and Confidential Information form (sent to the Coordinator of Student Affairs, School of Nursing).

5. Three letters of references mailed directly to the Coordinator of Student Affairs, School of Nursing.

6. Interview with a member of the AAS Admissions Committee (scheduled after items 1-5 above are completed).

When items 1-6 are complete, the student’s file will be entered into the ranking process; further details about the ranking process may be obtained directly from the AAS Nursing Program. Students are notified of the results of the ranking process by March 30th. Once admitted to the associate degree clinical courses, students are required to provide documentation of health, CPR, and liability insurance before actually beginning clinical course work.

Requirements marked with an asterisk (*) are considered valid only if the expiration date does not occur prior to the end of the semester:

1. Evidence of:
   a. Immunity to rubella and rubeola, confirmed by titer;
   b. Immunity to Hepatitis A and Hepatitis B, confirmed by titer (first semester clinical students may be in the process of completing the immunization series; for those students, documentation of immunity by titer is required prior to entry into second year courses);
   c. Immunity to chicken pox documented by history, titer or current immunization;
   d. Immunity to Hepatitis A and Hepatitis B, confirmed by titer (first semester clinical students may be in the process of completing the immunization series; for those students, documentation of immunity by titer is required prior to entry into second year courses);
   e. Freedom from active tuberculosis, documented annually by negative PPD skin test or by health exam by a nurse practitioner, physician, or physician’s assistant;
   f. Documentation of HIV testing annually (results not required).

2. Current Health Provider Certification in Cardiopulmonary Resuscitation for infants, children, and adults. First year students will have until the 3rd week of the semester to complete this certification which then must be kept current until graduation.

3. Professional liability insurance in the amount of $1 million/$3 million; insurance must be maintained throughout the duration of the student’s enrollment in clinical nursing courses. Specific information regarding acceptable professional liability insurance policies may be obtained directly from the Program.

4. Results of a national level criminal background check.

Students enrolled in clinical courses must provide their own transportation to clinical assignments and will be required to purchase uniforms and specialized equipment. The School assumes no responsibility for illnesses and injuries experienced by students in conjunction with their clinical experiences; students who are injured while completing clinical assignments are responsible for all associated medical costs. It is strongly recommended that students maintain personal medical insurance.

**ACADEMIC PROGRESS**

In order to progress within the Associate of Applied Science, Nursing program, students must earn a satisfactory grade (C or higher or P) in all nursing courses. Students who are unable to earn an acceptable grade in a nursing course during their initial enrollment may attempt to earn a satisfactory grade one additional time on a space available basis. Students enrolled in one course must be concurrently enrolled in all courses with that common number (NURS A120 and NURS A120L; NURS A125 and NURS A125L; NURS A220 and NURS A220L; NURS A222 and NURS A222L; NURS A225 and NURS A225L; NURS A250 and NURS A250L).
BACHELOR OF SCIENCE, NURSING SCIENCE

Students pursuing the baccalaureate degree in nursing science are provided both the theory and clinical base to enable them to assess plan, implement, and evaluate health care to meet the needs of individuals, families, groups, and communities whose health status varies qualitatively and quantitatively.

Students working on a degree in Nursing Science may choose from two options: the Basic Student Option and the Registered Nurse Option.

HONORS IN NURSING

Students majoring in Nursing are eligible to graduate with departmental honors by satisfying the following requirements:

1. Meeting the requirements for "Graduation with Honors" as listed in the UAA catalog.
2. Meeting the requirements for a BS in Nursing.
3. Earning a grade point average of 3.5 or higher in courses within the School of Nursing (courses with NS prefix).
4. Completing the following process
   a. Obtaining written support for the intent to graduate with honors from the individual’s faculty advisor.
   b. Notifying the Chair of the Baccalaureate Program and the Baccalaureate Curriculum Committee in writing of the intent to Graduate with Honors prior to enrolling in the first semester senior year classes.
   c. Obtaining approval to enroll in the Honors Electives from the Baccalaureate Chair and Baccalaureate Curriculum Committee prior to enrolling for first semester senior year classes.
5. Satisfactorily completing the 2 Honors Electives* courses during the senior year of the Baccalaureate Nursing Program.

   | NS A440 | Nursing Honors I - Project Exploration |
   | NS A441 | Nursing Honors II - Project Implementation |

* These courses satisfy the required 3 hours of nursing electives in the Baccalaureate Nursing Program.

BASIC STUDENT OPTION

ADMISSION REQUIREMENTS

Students who apply to the baccalaureate nursing major and who qualify for admission to baccalaureate nursing majors are admitted as pre-nursing majors. Admission as a pre-nursing major does not guarantee admission to the Nursing program. There are a limited number of seats available in each nursing course. Students must apply for admission to the nursing major during the semester in which they are completing the final prerequisites for the first nursing courses (see #6 below). Applications must be submitted prior to October 1 in the fall semester and February 1 in the spring semester. The School of Nursing strongly recommends that students submit their University application up to six months prior to the School of Nursing deadlines to ensure complete processing of the application and transcript evaluation. The process for advancement to the major and the formal admission to the Nursing program are:

1. UAA Certificate of Admission and transcript evaluations (if any) from Enrollment Services.
2. Advising sessions with a School of Nursing Advisor. The student attends a group advising session (call (907) 786-4560 for pre-recorded information on group advising session).
3. An extracted minimum grade point average of 2.70 for courses required for the Bachelor of Science, Nursing Science. The GPA is calculated using grades from all courses required for the nursing major and completed at the time of Application to the Nursing Major.
4. A grade of “C” or higher in all specified courses required for the nursing major.
5. Completion of specified prerequisite courses:
   | BIOL A111 | Human Anatomy & Physiology I |
   | BIOL A112 | Human Anatomy & Physiology II |
   | BIOL A240 | Introductory Microbiology for Health Sciences |
   | CHEM A103 | Normal Nutrition |
   | DN A203 | Life Span Development |
   | NURS A130 | Basic Nursing Pharmacology |
   | NURS A220 | Perinatal Nursing |
   | NURS A220L | Perinatal Nursing Lab |
   | NURS A221 | Advancing Parenteral Therapy Lab |
   | NURS A222 | Pediatric Nursing |
   | NURS A222L | Pediatric Nursing Lab |
   | NURS A225 | Adult Nursing II |
   | NURS A225L | Adult Nursing II Lab |
   | NURS A250 | Psychiatric Nursing |
   | NURS A250L | Psychiatric Nursing Lab |
   | NURS A255 | Staff Nurse: Legal, Ethical, and Organizational Issues |
   | CHEM A103 | Biological Science I |
   | CHEM A104 | Biological Science II |
   | ENGL A111 | English Composition I |
   | ENGL A213 | English Composition II |
   | ENGL A210 | Oral Communication |
   | ENGL A210, PHIL A101, PHIL A201, or PSY A150 | ORAL COMMUNICATION |

DIPLOMA PROGRAM IN NURSING: LPN OPTIONS

Within the LPN Option, licensed practical nurse students returning to school to complete the AAS degree in nursing will be in the LPN Direct Articulation track.

LPN Direct Articulation Track: Licensed practical nurse students with a current unencumbered Alaska LPN license are eligible for the LPN Direct Articulation track. This track enables the LPN to enter NURS A125/A125L of the AAS nursing program. Upon successful completion of NURS A125 with a “C” or higher grade, and NURS A125L with a “pass,” the student would be granted UAA course credits for NURS A120 and NURS A120L, for a total of 7 credits. To receive credit, the student must complete the appropriate form and pay an administrative fee per UAA policy. (NOTE: Any direct articulation LPN student not passing NURS A125/125L would not receive credit for NURS A120 and A120L, and would need to take these courses to continue toward the AAS degree in nursing).

Students enrolled in clinical courses must provide their own transportation to clinical assignments and will be required to purchase uniforms and specialized equipment. The School assumes no responsibility for illnesses and injuries experienced by students in conjunction with their clinical experiences; students who are injured while completing clinical assignments are responsible for all associated medical costs. It is strongly recommended that students maintain personal medical insurance.

GENERAL UNIVERSITY REQUIREMENTS

1. Complete the General University Requirements for Associate Degrees.
2. Complete the Associate of Applied Science General Degree Requirements (15 credits). At least 3 of the 6 credits of general requirements must be earned in a social science course.

MAJOR REQUIREMENTS

Within the LPN Option, licensed practical nurse students returning to school to complete the AAS degree in nursing will be in the LPN Direct Articulation track.

1. Complete the following required courses:
   | BIOL A111 | Human Anatomy & Physiology I |
   | BIOL A112 | Human Anatomy & Physiology II |
   | BIOL A240 | Introductory Microbiology for Health Sciences |
   | DN A203 | Normal Nutrition |
   | PSY A150 | Life Span Development |
   | CHEM A103 and A104 | 8 |
   | BIOL A111 and A112 | 8 |
   | CHEM A103 and A104 | 8 |
   | ENGL A111 and A213 | 6 |
   | ENGL A120, PHIL A101, PHIL A201, or PSY A150 | 3 |
   | Oral Communication Requirement | 3 |
   | Organizational Issues | 1 |

2. Complete electives to total 70 credits.

3. A total of 70 credits is required for the degree.
Prior to the end of the semester of current enrollment:

1. Evidence of:
   a. Immunity to rubella and rubeola confirmed by titer;
   b. Immunity to Hepatitis A and Hepatitis B confirmed by titer (first semester clinical students may be in the process of completing the immunization series, for those student, documentation of immunity by titer is required prior to entry into second year courses);
   c. Diphtheria/tetanus vaccination within the last ten years (booster required at time of expiration);
   d. Freedom from active tuberculosis, documented annually by negative PPD skin test or by health exam by a nurse practitioner, physician, or physician's assistant.*
   e. Immunity to chicken pox confirmed by health history, titer, or immunization;
   f. Documentation of having had a test for HIV annually (results not required).
2. Current Health Provider certification in Cardiopulmonary Resuscitation for clinical nursing courses (NS A204 and NS A216).
3. Professional liability insurance in the amount of $1 million/$3 million; insurance must be maintained throughout the duration of the student's enrollment in clinical nursing courses. (Specific information regarding acceptable professional liability insurance policies may be obtained directly from the Program).*
4. Results of a national level criminal background check. Students enrolled in clinical courses must provide their own transportation to clinical assignments and will be required to purchase uniforms and specialized equipment. The School assumes no responsibility for illnesses and injuries experienced by students in conjunction with their clinical experiences; students who are injured while completing clinical assignments are responsible for all associated medical costs. It is strongly recommended that students maintain personal medical insurance.

6. Enrollment in, or credit for,
   BIOL A240
   PSY A150 or one of the following:
   ENGL A120, PHIL A101, or PHIL A201
   ANTH or ECON General Education Requirement
   General Education Requirement

7. Application to the Baccalaureate Nursing Major. After completion of the first semester or 34 credits, as outlined in #5, and during enrollment in courses outlined in #6, the student meets with the Coordinator of Student Affairs to verify course completion and GPA and completes the Application to the Nursing Major. The student may call (907) 786-4550 to set up an appointment.

8. School of Nursing Application and Confidential Required Information form on file in the School.


10. A current Plan of Study signed by a School of Nursing Advisor on file with the School of Nursing.

11. After completion of all the above steps, the student's file is forwarded to the School's Admissions Committee for acceptance into the Nursing Major. Formal admission to the Nursing program is based on the student's relative standing on the minimum requirements outlined above. There are two deadlines for consideration by the Committee: October 1 in the following fall semester and February 1 in the following spring semester.

12. Achievement of a "C" or higher in the specified courses for the major that are in progress when admission is sought (i.e., PSY A150, BIOL A240), and maintenance of a minimum 2.70 GPA until the semester of enrollment in beginning nursing courses (NS A204 and NS A216).

**Clinical Requirements**

All students who are admitted to clinical nursing courses are required to provide copies of documentation of health, CPR and personal liability insurance prior to beginning those courses. Requirements marked with an asterisk (*) are considered valid only if the expiration date does not occur prior to the end of the semester of current enrollment:

1. Evidence of:
   a. Immunity to rubella and rubeola confirmed by titer;
   b. Immunity to Hepatitis A and Hepatitis B confirmed by titer (first semester clinical students may be in the process of completing the immunization series, for those student, documentation of immunity by titer is required prior to entry into second year courses);
   c. Diphtheria/tetanus vaccination within the last ten years (booster required at time of expiration);
   d. Freedom from active tuberculosis, documented annually by negative PPD skin test or by health exam by a nurse practitioner, physician, or physician’s assistant.*
   e. Immunity to chicken pox confirmed by health history, titer, or immunization;
   f. Documentation of having had a test for HIV annually (results not required).
2. Current Health Provider certification in Cardiopulmonary Resuscitation for infants, children and adults (information regarding acceptable courses may be obtained from the department).*
3. Professional liability insurance in the amount of $1 million/$3 million; insurance must be maintained throughout the duration of the student’s enrollment in clinical nursing courses. (Specific information regarding acceptable professional liability insurance policies may be obtained directly from the Program).*
4. Results of a national level criminal background check. Students enrolled in clinical courses must provide their own transportation to clinical assignments and will be required to purchase uniforms and specialized equipment. The School assumes no responsibility for illnesses and injuries experienced by students in conjunction with their clinical experiences; students who are injured while completing clinical assignments are responsible for all associated medical costs. It is strongly recommended that students maintain personal medical insurance.

**Academic Progress**

In order to progress within the baccalaureate nursing program, students must earn a satisfactory grade (C or higher) in all nursing sciences courses.

Re-Enrollment: Students who are unable to earn an acceptable grade in a nursing course during their initial enrollment may attempt to earn a satisfactory grade one additional time on a space available basis.

Concurrent Enrollment: Students enrolled in one course must be concurrently enrolled in all courses with that common number (NS A313, NS A313L; NS A315, NS A315L; NS A401, NS A401L; NS A406, NS A406L; NS A411, NS A411L, NS A416, NS A416L).

Basic Student Option Progress: The four semester clinical sequence must be completed in seven semesters and no more than a one semester delay between sequential clinical courses will be permitted without validation of continued competence and currency.

**Graduation Requirements**

Students must complete the following graduation requirements:

A. **General University Requirements**

   Complete the General University Requirements for All Baccalaureate Degrees listed at the beginning of this chapter.

B. **General Education Requirements**

   Complete the General Education Requirements for Baccalaureate Degrees listed at the beginning of this chapter. In the Nursing program, some required prerequisite courses fulfill general education requirements.

C. **Major Requirements**

   1. Complete all 44 credits of support courses for the Bachelor of Science, Nursing Science major with a grade of "C" or better. Courses marked with an asterisk (*) must be completed prior to admission to clinical nursing courses:
      AS A252  Elementary Statistics (3)  3
      AS A307  Probability (3)  3
      *BIOL A111  Human Anatomy and Physiology I  4
      *BIOL A112  Human Anatomy and Physiology II  4
      *BIOL A240  Introductory Microbiology for Health Sciences  4
      *CHEM A103/L  Survey of Chemistry  4
      *CHEM A104/L  Introduction to Organic Chemistry and Biochemistry  4
      *DN A203  Normal Nutrition  3
      *Reasoning Skills**:  3
      ENGL A120, or PHIL A101, or PHIL A201
      *ENGL A213  Writing in the Social and Natural Sciences  3
      PHIL A302  Biomedical Ethics  3
      *PSY A150**  Life Span Development  3
      PSY or SOC General Education Course  3
      **ANTH or ECON General Education Requirement  3

   **Must be in addition to the required General Education Requirements.

   2. Nursing Courses: Complete required nursing courses for the Nursing Science major.
      NS A204  Technology and Nursing Informatics  3
      NS A216  Pathophysiology  4
      NS A300  Foundations of Nursing I  4
      NS A303  Foundations of Nursing II  3
      NS A300L  Foundations of Nursing II Lab  5
      NS A309  Pharmacology in Nursing  3
      NS A313  Health Disruptions I  3
      NS A313L  Health Disruptions I Lab  3
      NS A315  Health I: Nursing Therapeutics  3
      NS A315L  Health I: Nursing Therapeutics Lab  3

University of Alaska Anchorage 2005-2006 Course Catalog
www.uaa.alaska.edu
A total of 126 credits is required for the degree; 42 credits must be upper-

A School of Nursing application on file in the School.

Students must be enrolled in, or have credit for each of the following courses at

An equivalent course will be substituted.

For transfer students, grades

For students not required to take ENGL A111, another Written Communication

Students who hold current licensure as a Registered Professional Nurse

In the State of Alaska, the School offers “RN-only” courses and sections

Previous college credits are evaluated for comparability to established

and experience and to facilitate progress in meeting program objectives.

within the program and may be accepted for transfer; in

in addition, credit by examination is available to satisfy some General

Education Requirements. Additional information is available upon request.

Registered nurses returning to complete the baccalaureate degree in nursing

science must successfully complete the same academic prerequisites as basic

students. Students who apply to the baccalaureate nursing major and who

qualify for admission to baccalaureate study are admitted as pre-nursing

majors. Admission as a pre-nursing major does not guarantee admission to

the Nursing program. Registered Nurses must apply for admission to the

nursing major during the semester in which they are completing the final

prerequisites for the first RN course, NS A308. The deadline for RN

admission is once a year in the fall semester by October 1. Formal admission to

the Nursing program is based on the Registered Nurse’s relative standing

on the following minimum requirements:

1. UAA Certificate of Admission and transcript evaluations from Enrollment

Services.

2. Current licensure as a Registered Professional Nurse in the State of Alaska. Copy

of licensure on file with the School.

3. A current Plan of Study signed by a Nursing advisor and the RN student on file

with the School of Nursing. The student may call (907) 786-4550 to set up an

advising session.

4. An extracted minimum grade point average of 2.00. The grade point average is

calculated using grades from all courses that are required for the nursing major

and that have been completed at the time of application to the major.

5. A grade of “C” or better in all specified courses required for the nursing major.

6. Completion of or credit for specified prerequisite courses:

   BIOL A111 4
   CHEM A103/L 4
   ENGL A111 3
   COMM A111, ENGL A120, PHIL A101, PHIL A201, or
   PSY A150 3

   General Education Requirement 3

For students not required to take ENGL A111, another Written Communication
(GER) course must be completed to total 6 credits. For transfer students, grades
from equivalent courses will be substituted.

7. Students must be enrolled in, or have credit for each of the following courses at
   the time of application to the major. Students must be achieving a “C” in the
   specified courses for the major when admission is sought and maintain a
   minimum 2.00 grade point average until beginning nursing courses.

   BIOL A112 4
   CHEM A104/L 4
   ENGL A120, PHIL A101, or PHIL A201 3
   ENGL A213 3

8. A School of Nursing application on file in the School.

9. Three letters of reference, one of which must be a professional reference.

Registered Nurse students not formally admitted by UAA as a baccalaureate
seeking student in the Nursing program or admitted as pre-nursing majors
are eligible to take the following courses:

   NS A305/305L Health Assessment of Individuals/Lab 3
   Nursing electives for which prerequisites have been met 6

RN Clinical Requirements

See Clinical Requirements under the Basic Student Option.

RN Academic Progress

See Academic Progress under the Basic Student Option.

Graduation Requirements

Students must complete the following graduation requirements:

A. General University Requirements

   Complete the General University Requirements for All Baccalaureate
   Degrees listed at the beginning of this chapter.

B. General Education Requirements

   Complete the General Education Requirements for Baccalaureate
   Degrees listed at the beginning of this chapter. In the Nursing
   program, some required prerequisite courses fulfill general education
   requirements.

C. Major Requirements

1. Support Courses: Complete support courses for the Nursing Science major. All
   support courses must be completed with a grade of “C” or better prior to
   admission to 300-level clinical nursing courses:

   AS A252  Elementary Statistics (3) 3
   or
   AS A307  Probability (3) 3
   BIOL A111  Human Anatomy and Physiology I 4
   BIOL A112  Human Anatomy and Physiology II 4
   BIOL A420  Introductory Microbiology for Health Sciences 4
   CHEM A103/L  Survey of Chemistry/Lab 4
   CHEM A104/L  Introduction to Organic Chemistry and Biochemistry/Lab 4
   DN A203  Normal Nutrition 3
   or
   Reasoning Skills* 3
   ENGL A120, or PHIL A101, or PHIL A201
   ENGL A213  Writing in the Social and Natural Sciences 3
   PHIL A302  Biomedical Ethics 3
   PSY A150*  Life Span Development 3
   ANTH or ECON*  General Education Requirement 3
   PSY or SOC  General Education Requirement 3

   *Must be in addition to the required General Education Requirements.

RN Licensure Credit

An accepted, degree seeking UAA nursing student who has successfully
passed the National Council Licensure Exam (NCLEX) and has current RN
licensure in the State of Alaska may be granted the following UAA course
credits upon completion of NS A406 with a grade of “C” or better, and NS
A406L with a “Pass.”

   NS A216  Pathophysiology 4
   NS A309  Pharmacology 3
   NS A303  Foundations of Nursing I 3
   NS A303L  Foundations of Nursing I Lab 5
   NS A313  Health Disruptions I 3
   NS A313L  Health Disruptions I Lab 3
   NS A401  Health Disruptions II 3
   NS A401L  Health Disruptions II Lab 3
An administrative fee will be charged for these credits. To receive credits, the student must complete the appropriate form with a Nursing advisor. Contact the School of Nursing (907) 786-4550 for further information.

2. Nursing courses for academic credit: Complete the following required nursing courses within the Nursing Science major (35 credits with a grade of “C” or better). Courses marked with an asterisk (*) must be completed prior to admission to 400-level clinical nursing courses.

- *NS A204 Technology and Nursing Informatics 3
- *NS A305 Health Assessment of Individuals 2
- *NS A305L Health Assessment of Individuals Lab 1
- *NS A308 Dimensions of Professional Nursing Practice 3
- *NS A314 Health I for Registered Nurses 2
- *NS A314L Health I for Registered Nurses Lab 2
- NS A400 Nursing Research 3
- NS A406 Nursing Therapeutics in Complex Health Disruptions 2
- NS A406L Nursing Therapeutics in Complex Health Disruptions Lab 2
- NS A411 Health II: Nursing Therapeutics 3
- NS A411L Health II: Nursing Therapeutics Lab 3
- NS A417 Management in Nursing 3
- Nursing electives (upper-division) 6

3. Complete elective credits to total 126 credits. 3

4. A total of 126 credits is required for the degree, 42 credits of which must be upper-division.

**FACULTY**

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**SCHOOL OF SOCIAL WORK**

http://socialwork.uaa.alaska.edu

Gordon Hartlieb Hall (GHH), Room 106, (907) 786-6900

The educational purpose of the Bachelor of Social Work program at the University of Alaska Anchorage is to prepare graduates for beginning professional social work practice. Preparation for professional practice builds on a broad based liberal arts education accomplished through completion of General Education and major degree requirements.

Social work is a profession committed to assisting individuals, families, groups, organizations, communities and society as a whole in the improvement of the quality of life through the amelioration of social problems, equitable distribution of social resources, and client empowerment. Within an overall emphasis on consumer-centered planned change, the Bachelor of Social Work degree program at University of Alaska Anchorage is guided by the following principles:

- Social work practice is based on selective use of knowledge in planned efforts with human systems and social problems.
- Social work practice recognizes human diversity as a strength.
- Social work practice is based on professional values and ethics.
- Social work practice is based on professional relationships.
- Social work practice is based on reciprocal role performance.
- Social work practice is based on a strengths perspective.

Social work education engages the student in carefully planned experiences to achieve the knowledge, skills, and values necessary for beginning professional practice. These experiences take place in the classroom, laboratory, volunteer experience, small seminars, and selected field work practicum placements. The practicum placement is an essential component for completion of the professional degree for the BSW.

The Bachelor of Social Work degree program is accredited by the Council on Social Work Education (CSWE). BSW program admission and curriculum requirements are consistent with BSW licensing requirements for the State of Alaska.

**BACHELOR OF SOCIAL WORK**

**ADMISSION REQUIREMENTS**

Students declare a major and are assigned to the current catalog year. Declaration of social work as a major does not guarantee admission to the Social Work program. Students must apply for admission to the Social Work program during the fall semester of their junior year. Full admission to the Social Work Program is based upon the requirements listed below.

Social Work credits earned through other CSWE accredited social work programs may be transferred to UAA and applied toward the Bachelor of Social Work degree. Approval from the UAA School of Social Work is required for acceptance of social work transfer credits from programs which are not accredited by CSWE.

**REQUIREMENTS FOR FULL ADMISSION TO THE SOCIAL WORK PROGRAM**

To apply for full admission to the Social Work Program, students must complete:

1. General Education Requirements for Baccalaureate Degrees.
2. Additional Liberal Arts Foundation courses. A grade of “C” or better must be earned in all Liberal Arts Foundation courses.
3. The following core Social Work courses with a grade of “C” or better (18 credits): SWK A106, SWK A206, SWK A330, SWK A331, SWK A342, SWK A243 or SWK A343, and SWK A424.
Once the above requirements are met, students must submit the following to the School of Social Work by the last Friday in October prior to intended entry into field work:

1. The School of Social Work Application for Admission to the BSW degree and Practicum for fall enrollment.
3. A Student Practicum Interest sheet.

Students participate in an interview with faculty and community members to jointly assess readiness for SWK A461A/B and readiness to successfully complete remaining program requirements. The School of Social Work will notify applicants of their status by December 1st.

Admission to the Social Work program is based on 1) successful completion of the requirements listed above, 2) demonstration of beginning competence in client-centered communication skills developed in SWK A330, documented in videotaped simulated interviews, and 3) professional judgement of social work faculty.

Placements may become competitive if the number of applicants exceeds the number of spaces. The program and agencies also reserve the right to refuse and/or terminate students who do not meet a minimum standard of performance. Thus, while the School of Social Work makes every effort to find appropriate field placements for students, admittance to the BSW program does not guarantee acceptance by cooperating social services agencies.

Only students eligible to receive state licensure will be admitted to the BSW degree program. Please contact the School of Social Work for further information.

**DEPARTMENTAL HONORS**

The Bachelor of Social Work Program recognizes exceptional performance by conferring Departmental Honors in Social Work. The award is noted on the student’s permanent transcript. In order to receive Honors in Social Work, a student must meet each of the following requirements:

1. Complete all requirements for the BSW degree. A minimum of 30 credits applicable to the BSW degree must be completed at UAA.
2. Have a GPA of 3.5 or higher in upper division (300 and 400 level) social work courses, with an “A” in the following courses:
   a. SWK A363, Great Books in Social Work (taken in spring of junior year)
   b. SWK A463, Social Work Senior Honors Research Project (taken in fall of senior year)
   c. SWK A430, Social Work Practice III
   d. SWK A461B, Social Work Practicum I
   e. SWK A431, Social Work Practice IV
   f. SWK A462B, Social Work Practicum II
3. Completion of HNRS A310 (Community Service: Theory and Practice); or SWK A243 (Cultural Diversity and Community Services) with a grade of B or higher.
4. Completion of one course in human biology, one course on human development over the lifespan, and one course on applied statistics, with a grade of “C” or higher.
5. Notify the BSW Program Coordinator in writing, on or before the date of submitting the Application for Graduation with the Enrollment Services Office, of the intent to graduate with Departmental Honors.

Successful completion of Departmental Honors in Social Work earns automatic admission into the Master of Social Work Program with Advanced Standing status. Students are responsible for completing a UAA Graduate Application for Admission and notifying the MSW Admissions Committee in writing by January 15th of the year they intend to enroll in the MSW Program.

**ACADEMIC PROGRESS**

Students in the Social Work program must earn a grade of “C” or better in the required liberal arts and the core social work courses. Adherence to the Code of Ethics established by the National Association of Social Workers is required.

**COURSE CONTENT CURRENCY REQUIREMENT**

All upper division courses with a Social Work subject code (SWK) must be completed within seven years prior to graduation.

**GRADUATION REQUIREMENTS**

Students must complete the following graduation requirements:

**A. GENERAL UNIVERSITY REQUIREMENTS**

Complete the General University Requirements for All Baccalaureate Degrees listed at the beginning of this chapter.

**B. GENERAL EDUCATION REQUIREMENTS**

Complete the General Education Requirements for Baccalaureate Degrees listed at the beginning of this chapter.

**C. MAJOR REQUIREMENTS**

1. Complete the following liberal arts foundation courses:
   - ANTH A200 or A202 3
   - BA A151 or ECON A201 3
   - One of the following: BIOL A102 or A111 or A112, or A115, or A116 3-4
   - ENGL A311, A312, A313, or A414 3
   - ENGL A120 or PHIL A101 or A201 or A301 or A421 3
   - SOC A101 3
   - PSY A150 3
2. Complete the following required core courses:
   - SWK/HUMS A106 Introduction to Social Welfare 3
   - SWK A206 Introduction to Social Work 3
   - SWK A243 Cultural Diversity and Community Services (3) or
   - SWK A343 Human Behavior: Diversity and Discrimination (3)
   - SWK A330 Social Work Practice I 3
   - SWK A331 Social Work Practice II 3
   - SWK A342 Human Behavior in the Social Environment 3
   - SWK A424 Social Work Research with Statistical Application 3
   - SWK A430 Social Work Practice III 3
   - SWK A431 Social Work Practice IV 3
   - SWK A461B Social Work Practicum I 6
   - SWK A462B Social Work Practicum II 6
   - Upper-division Social Work electives 6
3. Complete electives to total 120 credits.
4. A total of 120 credits is required for the degree, of which 42 must be upper-division.

Note: It is recommended that you take one or two 3-credit electives each semester to bring your total credits to 120.

**MINOR, SOCIAL WELFARE STUDIES**

Students majoring in another subject who wish to minor in Social Welfare Studies must complete the following requirements. A total of 18 credits is required for the minor.

- SWK/HUMS A106 Introduction to Social Welfare 3
- SWK A206 Introduction to Social Work 3
- SWK A243 Cultural Diversity and Community Service (3) or
- SWK A343 Human Behavior: Diversity and Discrimination (3)
- SWK A342 Human Behavior in the Social Environment 3
- Upper-division Social Work electives 3
COMMUNITY AND TECHNICAL COLLEGE

The UAA Community and Technical College is a major center for development and delivery of career and technical, community, and continuing education programs. To accomplish this, the College also provides courses to degree seeking students within identified populations at off-campus locations or within time frames designed to make education more accessible, delivers quality continuing education courses to professionals and the community, provides instruction and services for under-prepared and at-risk students, and provides cultural and community service programs.

In keeping with the mission of the University of Alaska Anchorage, the Community and Technical College has a commitment to innovation and flexibility that makes high quality education and training available to all who have the ability and interest to pursue an education or profession. Faculty within the College are highly trained professionals, many with years of experience in the technical specialties related to their teaching areas. Career and Technical Education Advisory Committees help insure that programs are closely linked to the needs of the work force. Graduates of the College generally find immediate employment in their chosen field of study.

Career and technical education training leading to certificates and Associate of Applied Science degrees through the Master’s degree are offered in over 20 program areas. In addition, the College delivers statewide programs in Apprenticeship Technologies, Career and Technical Education, the Mining and Petroleum Training Service, and North Pacific Fisheries Observer Training Center.

REGISTRATION

The Community and Technical College offers registration for CTC courses. Additional registration site at the Chugiak-Eagle River Campus at the Eagle Center (907) 694-3313.

ARTICULATION WITH HIGH SCHOOL PROGRAMS

The Community and Technical College has a close and positive working relationship with the Alaska School District that eases the transition from high school to college. Also, students may earn college credit for tech prep courses while still in high school. Information regarding these programs can be obtained by calling the Community and Technical College Tech-Prep Office at 786-6464, refer to Tech-Prep Program in Chapter 9, or by visiting the website at techprep.uaa.alaska.edu.

REGIONAL COORDINATION

The Community and Technical College serves as a resource to the Southcentral region extended campuses in the area of career and technical education. The Dean of the College serves as regional career and technical education coordinator and provides assistance to the campus directors and faculty in coordinating the development and delivery of career and technical education programs and course work in Kenai, Kodiak and Palmer. The goal of regional coordination of career and technical education is to allow the student maximum flexibility within acceptable academic guidelines. Many courses are offered between UAA and the Southcentral extended campuses and may be easily transferred from one campus to another.

COLLEGE PREPARATORY & DEVELOPMENTAL STUDIES

The College Preparatory & Developmental Studies Department (CPDS) helps under-prepared, linguistically diverse, and non-traditional students develop the academic and language skills necessary to pursue successfully their lifelong learning goals.
The CPDS department offers composition, English-as-a-Second Language (ESL), mathematics, reading, and study skills courses that prepare students to advance to the next academic level. The department uses placement and retention advising, tutoring, and a developmental teaching philosophy to help students succeed.

College Preparatory & Developmental Studies focuses on academic and professional English-as-a-Second Language at the intermediate and advanced levels. These courses strengthen ESL students' usage of Standard American English and build ESL students' confidence in their English abilities.

Developmental Math courses - MATH A050, MATH A054, MATH A055, and MATH A105 - are taught to ensure mastery of the required course material. Classes incorporate in-class lectures, work in the math lab with instructors and certified tutors, un-timed testing in the math lab at the student's convenience, and the opportunity to retake exams. Computer supplements, videotapes, CD-ROMs, workshops, web courses, and graphing calculators are available. CPDS math courses are found under the MATH prefix, and are identified with the "_8_" in the section number. Example: MATH A054 section 880; or MATH A055 section 685.

Developmental English classes are found under the PRPE prefix (Preparatory English). They offer traditional classroom instruction as well as individualized reading labs. Students are supported through use of a computer-assisted writing lab staffed with certified tutors.

Learning labs are computerized and staffed by certified tutors for composition and math. CPDS in conjunction with the Learning Resource Center operate these labs.

CPDS offers an interdisciplinary learning community - Smart Start. Collaborative instruction in math, writing, reading, and academic success skills provide a high degree of support for at-risk students. These classes are team-taught by developmental faculty with the help of certified tutors.

**NONTRANSCRIPTED DEPARTMENTAL CERTIFICATES OF COMPLETION**

The Community and Technical College offers certificates of completion to students enrolling in specific programs. Students may enroll in courses for which they have satisfied the prerequisites.

Expedition courses require the student to withdraw 45 days before the course start date in order to receive a full refund.

**NONTRANSCRIPTED DEPARTMENTAL CERTIFICATE, HEALTH CARE ASSISTANT**

*Allied Health Sciences Building (AHS), Room 158, (907) 786-6934*

The nontranscripted Health Care Assistant departmental certificate of completion is an approved State of Alaska program designed to prepare individuals for entry-level employment in long-term care facilities, hospitals, and community settings. Instruction is delivered through classroom lectures, demonstrations, skills lab, and practicum. Successful completion of the program allows individuals to apply for the state of Alaska Nurse Aide Certification examination. No part of the HCA Program may be used to satisfy requirements for an associate or baccalaureate degree in Nursing.

1. Students must complete the following required courses:
   - HCA A055 Health Care Assistant 4
   - PEP A112 First Aid and CPR for Professionals 1
   - HCA A095 Health Care Assistant Practicum 3

2. Special application procedures are necessary to enroll. Contact Health Education and Training for further information.

**AIR FORCE ROTC**

*Aviation Complex (AVNC) 2811 Merrill Field Drive, Room 116, (907) 264-7466*

Air Force ROTC educates and trains UAA students to serve as officers in the United States Air Force. Air Force ROTC has Four-, Three-, and Two-Year Programs that lead to a commission as a Second Lieutenant. The curriculum consists of academic courses and a leadership laboratory. Air Force ROTC is not a degree or certificate granting program.

The academic courses cover the history, organization, and mission of the Air Force, as well as leadership, management, and national security affairs. Any UAA student may take these academic courses (except AIRS A150) without joining the Cadet Corps or the Air Force. However, certain courses require prerequisites or faculty permission.

The leadership laboratory provides practical military training. Activities include field trips to Air Force bases, physical fitness training, marching, and leadership exercises. To attend the leadership laboratory, UAA students must join the Cadet Corps and not have a medical condition that would preclude service in the Armed Forces.

To become an officer through Air Force ROTC, a student must, at a minimum, complete the Two-Year Program (300- and 400-level courses plus leadership laboratory), a summer field training encampment, and earn a baccalaureate degree in any major from UAA. Upon graduation and commissioning, new lieutenants must serve 4 years in the Air Force. Those who successfully complete Air Force pilot training must serve 10 years after training.

Two hours of mandatory Physical Training (PT) is required each week. Times and location of PT sessions will be announced.

**Two-Year Program**

1. Available to UAA students with 2 years remaining until graduation. Cadets must take the courses listed below and attend a summer field training encampment either before starting the 300-level courses or in the summer prior to starting the 400-level courses.
   - AIRS A301 US Air Force Leadership and Management I 3
   - AIRS A302 US Air Force Leadership and Management II 3
   - AIRS A401 National Security Affairs I 3
   - AIRS A402 National Security Affairs II/Preparation for Active Duty 3
   - AIRS A150 US Air Force Leadership Laboratory(I) 4

2. Cadets take AIRS A150 (US Air Force Leadership Laboratory) each semester for a total of four semesters and 4.0 credits. Academic courses are taken in the order listed, beginning with AIRS A301 in the fall semester.

**Three-Year Program**

1. Available to UAA students with 3 years remaining until graduation. Cadets must take the courses listed below and attend a summer field training encampment prior to starting the 300-level courses.
   - AIRS A201 Evolution of Air and Space Power I 2
   - AIRS A202 Evolution of Air and Space Power II 2
   - AIRS A301 US Air Force Leadership and Management I 3
   - AIRS A302 US Air Force Leadership and Management II 3
   - AIRS A401 National Security Affairs I 3
   - AIRS A402 National Security Affairs II/Prep for Active Duty 3
   - AIRS A150 US Air Force Leadership Laboratory(I) 6
2. Cadets must take AIRS A150 (US Air Force Leadership Laboratory) each semester for a total of six semesters and 6.0 credits. Academic courses are taken in the order listed, beginning with AIRS A201 in the fall semester.

Four-Year Program

1. Available to UAA students with 4 or more years remaining until graduation. Cadets must take the courses listed below and attend a summer field training encampment prior to starting the 300-level courses.
   - AIRS A101 Foundations of the US Air Force I 1
   - AIRS A102 Foundations of the US Air Force II 1
   - AIRS A201 Evolution of Air and Space Power I 2
   - AIRS A202 Evolution of Air and Space Power II 2
   - AIRS A301 US Air Force Leadership and Management I 3
   - AIRS A302 US Air Force Leadership and Management II 3
   - AIRS A401 National Security Affairs I 3
   - AIRS A402 National Security Affairs II/Preparation for Active Duty 3
   - AIRS A150 US Air Force Leadership Laboratory (1) 8

2. Cadets must take AIRS A150 (US Air Force Leadership Laboratory) each semester for a total of eight semesters and 8.0 credits. Academic courses are taken in the order listed, beginning with AIRS A101 in the fall semester.

Scholarships and Incentive Payments

Air Force ROTC has numerous scholarship and incentive programs for high school seniors planning to enroll at UAA and for college students currently enrolled or planning to enroll at UAA. All students receiving a scholarship or incentive payment must join the Cadet Corps and be a full-time student (at least 12 semester credits for undergraduate or 9 semester credits for graduate students).

1. High school seniors can compete for Air Force ROTC scholarships that pay tuition, fees, and books at any university with an Air Force ROTC program. The scholarship includes a monthly stipend. Students can obtain applications from the UAA Air Force ROTC office or from a high school guidance counselor. Applications must be postmarked no later than December 1st of a student's senior year.

2. Air Force ROTC at UAA has several scholarship options for college students. These scholarships cover tuition, fees, and books for sophomores, juniors, and seniors. Scholarships also include a monthly stipend. Students compete for these scholarships during the academic year prior to activation. For example, a 100-level cadet can compete for a scholarship that would start in the fall of the cadet’s 200-level year.

3. Cadets enrolled in the 300- and 400-level courses are eligible for incentive payments of up to $1,750 per semester for tuition and fees plus the monthly stipend. To be eligible, a cadet must have at least a 2.0 cumulative GPA (UAA plus other colleges/universities).

4. All scholarships and incentives are subject to federally mandated age restrictions. Contact Air Force ROTC at UAA for more information.

COMMISSIONING

After completing the AFROTC Program, graduating from UAA, and passing a commissioning physical, cadets will receive a commission as a Second Lieutenant in the US Air Force.

1. Cadets selected for pilot training will usually begin the training within 1 year of commissioning. Officers who successfully complete Air Force pilot training must serve 10 years. Cadets compete for pilot training slots in their 300-level year. The pilot selection board considers GPA, cadet ranking, Physical Fitness Test scores, previous flight time, and pilot aptitude test scores when assessing candidates. Air Force ROTC at UAA has more information on medical and age requirements for Air Force pilots.

2. Cadets not qualified for pilot training can compete for slots in other career fields. The Air Force has a variety of operations, administrative, engineering, and scientific assignments. Cadets compete for and receive career assignments during the 400-level year and will serve 4 years in the US Air Force after commissioning.

3. Cadets may also compete for medical school appointments. Scholarships cover tuition, fees, and books for a cadet's undergraduate and medical school programs. Air Force ROTC at UAA has more information on this highly competitive program.

FACULTY

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APPRENTICESHIP TECHNOLOGIES

http://www.uaa.alaska.edu/ctc/programs/applied

The Apprenticeship Technologies program is a 60-credit Associate of Applied Science degree coordinated by the University of Alaska Anchorage, and is delivered collaboratively through UAA, UAF, and UAS. The curriculum specifically reflects the commitment of the University to provide high-quality instruction and service to the public through a practical integration of general course work and training for vocational-technical trades. Individuals receiving this degree must complete a formal apprenticeship program and hold journeyman level status in trades recognized by the U.S. Department of Labor, Bureau of Apprenticeship and Training.

Students declaring a major in Apprenticeship Technologies must present documentation of completion of an apprenticeship program approved by the U.S. Department of Labor, Bureau of Apprenticeship and Training. The department will review the documentation and may require up to 38 credits to be transmitted following completion of all courses listed in the Degree Requirements section.

ASSOCIATE OF APPLIED SCIENCE, APPRENTICESHIP TECHNOLOGIES

ADMISSION REQUIREMENTS

Satisfy the Admission to Certificate and Associate Degree Programs Requirements in Chapter 7, “Academic Standards and Regulations.”

GENERAL UNIVERSITY REQUIREMENTS

1. Complete the associate degree requirements located at the beginning of this chapter.
2. Complete the associate of applied science degree requirements (15 credits) located at the beginning of this chapter. Some of the major requirements also will fulfill associate of applied science degree general requirements.
Institute for the Certification of Engineering Technicians (NICET), and for Associate Technician Qualifying Examination offered by the National. The AET faculty assists students with curriculum planning to prepare for the to complete. AET Certificates require 2 to 3 semesters to complete. The AET Associate of Applied Science (AAS) degree requires 4 to 5 semesters of architects, engineers, and other technicians. The ability to work well with others is also important as they are part of a team in design work, creativity is desirable. Good communication skills and the and computers to do this. Because many drafters and technicians may assist specifications, codes, and calculations previously made by engineers, and technicians fill in technical details by using drawings, rough sketches, dimensions, materials to be used, and procedures to be followed. Drafters and technicians fill in technical details by using drawings, rough sketches, specifications, codes, and calculations previously made by engineers, surveyors, or architects. They use technical handbooks, tables, calculators, and computers to do this. Because many drafters and technicians may assist in design work, creativity is desirable. Good communication skills and the ability to work well with others is also important as they are part of a team of architects, engineers, and other technicians. The AET Associate of Applied Science (AAS) degree requires 4 to 5 semesters to complete. AET Certificates require 2 to 3 semesters to complete. The AET faculty assists students with curriculum planning to prepare for the Associate Technician Qualifying Examination offered by the National Institute for the Certification of Engineering Technicians (NICET), and for Construction Specification Institute (CSI) certification exams. Courses are also available through the AET Department to help intern architects prepare for the Architects Registration Examination. Although courses taken may apply to the first 2 years of the 4 year degree program (BS in Technology), the AET AAS degree should not be considered preparatory or a substitute for professional degree programs in architecture or engineering. Students pursuing a 4 year degree in engineering should contact the Engineering Department at UAA. Those students pursuing a degree in architecture should contact the AET department for academic counseling prior to registration. Subject to scheduling, students may select either 5 week or 15 week blocks of instruction for each AET course. The content is the same; only the amount of time a course meets per week is different. Students should expect to spend at least 1 hour on outside work for each hour in class. Lab facilities are available for student use 5 days a week. Course offerings vary between fall and spring semesters with occasional short courses offered during the summer. In addition to tuition and fees, students should expect to purchase books and equipment required for each course. However, supplies should not be purchased before the first class.

**Advising**

All students are encouraged to meet with their academic advisor each semester for the purpose of reviewing their academic progress and planning future courses. It is particularly important for students to meet with their advisor whenever academic difficulties arise. Students are encouraged to consult the faculty in the AET Department for assistance in designing their course of study to ensure prerequisites have been met and that university and major degree requirements are understood and followed.

**Certificates**

**Admission Requirements**

Satisfy the Admission to Certificate and Associate Degree Programs Requirements in Chapter 7, “Academic Standards and Regulations.”

**Course Requirements**

Certain courses require prerequisites or faculty permission. Contact (907) 786-6423 for further information.

**Graduation Requirements**

In order to receive a certificate offered by the AET Department, students must achieve a grade of “C” or better in all courses required for the certificate.

**Architectural Drafting Certificate Requirements**

1. Complete the following required courses:
   - AET A101 Fundamentals of CADD for Building Construction 4
   - AET A102 Methods of Building Construction 3
   - AET A121 Architectural Drafting 3
   - AET A123 Codes and Standards 3
   - AET A181 Intermediate CADD for Building Construction 3
   - AET A282 Advanced CADD Techniques 4
   - Oral Communication Course 3
   - General Requirement Course 3
   - (MATH A105 is recommended)

2. A total of 30 credits is required for the certificate.

**Architectural and Engineering Technology**

http://www.uaa.alaska.edu/ctc/programs/applied University Center (UC), Room 130, (907) 786-6423

The Architectural and Engineering Technology (AET) program provides entry-level skills, continuing education, and advanced technical skills in several specialized fields, including computer-aided design and drafting (CADD), 3-D modeling, and rendering. The AET Department offers four certificates in the specialized areas of Architectural Drafting, Civil Drafting, Mechanical & Electrical Drafting, and Structural Drafting, and an Associate of Applied Science (AAS) degree in Architectural and Engineering Technology which encompasses all of these fields.

Students are trained to become skilled workers on architectural and engineering design teams. AET certificate and degree graduates are employed as drafters or technicians and work in private industry as well as municipal, state, or federal agencies. Drafters and technicians work in support of professional architects and engineers to produce the technical drawings used by construction workers to build everything from roads and bridges, to homes and office buildings, to oil and gas pipelines. Their drawings provide the visual guidelines that show the technical details of the products and structures to be constructed. These drawings specify dimensions, materials to be used, and procedures to be followed. Drafters and technicians fill in technical details by using drawings, rough sketches, specifications, codes, and calculations previously made by engineers, surveyors, or architects. They use technical handbooks, tables, calculators, and computers to do this. Because many drafters and technicians may assist in design work, creativity is desirable. Good communication skills and the ability to work well with others is also important as they are part of a team of architects, engineers, and other technicians.

The AET Associate of Applied Science (AAS) degree requires 4 to 5 semesters to complete. AET Certificates require 2 to 3 semesters to complete. The AET faculty assists students with curriculum planning to prepare for the Associate Technician Qualifying Examination offered by the National Institute for the Certification of Engineering Technicians (NICET), and for
COURSE REQUIREMENTS

1. Complete the following required courses:
   - AET A101 Fundamentals of CADD for Building Construction 4
   - AET A102 Methods of Building Construction 3
   - AET A121 Architectural Drafting 3
   - AET A131 Structural Drafting 3
   - AET A142 Mechanical & Electrical Technology 4
   - AET A143 Mechanical & Electrical Drafting 3
   - AET A181 Intermediate CADD for Building Construction 4
   - AET A282 Advanced CADD Techniques 4
   - Oral Communication Course 3
   - (Choose from one of the following: COMM A111, COMM A235, COMM A237, or COMM A241)
   - ENGL A111 Methods of Written Communication 3
   - General Requirement Course 3
   - (MATH A105 is recommended)

2. A total of 31 credits is required for the certificate.

MECHANICAL AND ELECTRICAL DRAFTING

CERTIFICATE REQUIREMENTS

1. Complete the following required courses:
   - AET A101 Fundamentals of CADD for Building Construction 4
   - AET A102 Methods of Building Construction 3
   - AET A142 Mechanical & Electrical Technology 4
   - AET A143 Mechanical & Electrical Drafting 3
   - AET A181 Intermediate CADD for Building Construction 4
   - AET A282 Advanced CADD Techniques 4
   - Oral Communication Course 3
   - (Choose from one of the following: COMM A111, COMM A235, COMM A237, or COMM A241)
   - ENGL A111 Methods of Written Communication 3
   - General Requirement Course 3
   - (MATH A105 is recommended)

2. A total of 31 credits is required for the certificate.

STRUCTURAL DRAFTING

CERTIFICATE REQUIREMENTS

1. Complete the following required courses:
   - AET A101 Fundamentals of CADD for Building Construction 4
   - AET A102 Methods of Building Construction 3
   - AET A131 Structural Drafting 3
   - AET A181 Intermediate CADD for Building Construction 4
   - AET A231 Structural Technology 4
   - AET A282 Advanced CADD Techniques 4
   - Oral Communication Course 3
   - (Choose from one of the following: COMM A111, COMM A235, COMM A237, or COMM A241)
   - ENGL A111 Methods of Written Communication 3
   - General Requirement Course 3
   - (MATH A105 is recommended)

2. A total of 31 credits is required for the certificate.

ASSOCIATE OF APPLIED SCIENCE, ARCHITECTURAL AND ENGINEERING TECHNOLOGY

ADMISSION REQUIREMENTS

Satisfy the Admission to Certificate and Associate Degree Programs Requirements in Chapter 7, “Academic Standards and Regulations.”

COURSE REQUIREMENTS

Certain courses require prerequisites or faculty permission. Contact (907) 786-6426 for further information.

In order to receive the AAS degree offered by the AET Department, students must achieve a grade of “C” or better in all courses required for the AAS degree.

GENERAL UNIVERSITY REQUIREMENTS

1. Complete the General University Requirements for Associate Degrees located at the beginning of this chapter.

2. Complete the Associate of Applied Science General Degree Requirements (15 credits) located at the beginning of this chapter. GEOL A111 and MATH A105 are recommended.

MAJOR REQUIREMENTS

1. Complete the following required courses:
   - AET A101 Fundamentals of CADD for Building Construction 4
   - AET A102 Methods of Building Construction 3
   - AET A111 Civil Drafting 3
   - AET A121 Architectural Drafting 3
   - AET A123 Codes & Standards 3
   - AET A131 Structural Drafting 3
   - AET A142 Mechanical & Electrical Technology 4
   - AET A143 Mechanical & Electrical Drafting 3
   - AET A181 Intermediate CADD for Building Construction 4
   - AET A213 Civil Technology 4
   - AET A231 Structural Technology 4
   - AET A282 Advanced CADD Techniques 4
   - Electives 3

2. A total of 60 credits is required for the degree.

RECOMMENDED COURSE SEQUENCE

Not all AET courses are offered every semester. The course sequencing is dependent on the semester in which the student starts the program. Students should consult the faculty in the AET Department for assistance in designing their course of study to ensure that university and major degree requirements are understood and followed.

FACULTY

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AUTOMOTIVE AND DIESEL TECHNOLOGY

http://www.uaa.alaska.edu/ctc/programs/applied
Auto & Diesel Technology Building (ADT), Room 207, (907) 786-1485

State of Alaska and Federal Departments of Labor projections show an above average increase in the need for qualified maintenance and repair technicians in the Automotive and Heavy Duty Transportation and Equipment industries. Consumer demands for increased performance and fuel economy, coupled with government regulations on vehicle emissions, are driving technology to new heights. The Automotive and Diesel Department offers AAS degrees in Automotive Technology and Heavy Duty Transportation and Equipment that are designed to equip students with knowledge and skills necessary to meet the needs of employers in the industry.

There are three options for the AAS Automotive Technology Degree. The General Automotive Technology option for the AAS Degree and Certificate are designed to prepare students for a career in the automotive maintenance and repair industry. Curriculum design is based on automotive task lists developed by the National Institute for Automotive Excellence. The Ford ASSET option for the AAS Degree is designed to prepare students for a career in Ford and Lincoln-Mercury dealerships. Students train on current technology vehicles and components donated by Ford Motor Company. The
General Motors ASEP option for the AAS Degree is designed to prepare students for a career in General Motors dealerships. Students train on current technology vehicles and components donated by General Motors Corporation. Graduates from the two corporate-sponsored AAS Degree options receive factory credentials upon graduation. These credentials are recognized by the respective dealerships across the country.

The AAS Degree and Certificate in Heavy Duty Transportation and Equipment (HDTE) are designed to prepare students to work as repair and maintenance technicians in the HDTE industry. Much of the curriculum is based on medium and heavy duty maintenance and repair tasks developed by the National Institute for Automotive Service Excellence. Students train on vehicles, equipment, and components provided by or procured from major manufacturers of medium and heavy duty trucks and equipment.

**AUTOMOTIVE TECHNOLOGY (GENERAL AUTOMOTIVE OPTION)**

This program is modeled after a variety of very successful corporate training programs. The program is five semesters long. It incorporates a prearranged, supervised, evaluated practicum after the first two semesters, with the possibility of an additional practicum during the last semester. Students experience training on a wide variety of modern domestic and imported vehicles, light trucks, and vans. Laboratory and shop objectives are met on training vehicles, components, and live shop projects. Automotive Technology graduates have been placed in dealerships, independent shops, service stations, mass merchandisers, aviation ground support, and fleet repair facilities. Employers require a current vehicle operator’s license and a good driving record. The student should have physical capabilities required of the trade which typically include standing long hours; lifting heavy objects; contacting hazardous materials; operating machinery; exposure to noise, heat, cold, vapors, and other work place hazards; manipulating tools; and working with small parts in confined and awkward positions. Technicians must be able to distinguish colors in minimal light, transcribe numbers up to 17+ digits, and work up to 10 hours a day, 6 days per week. Equal opportunities are available for men and women.

**AUTOMOTIVE TECHNOLOGY (FORD ASSET OPTION)**

The ASSET (Automotive Student Services Educational Training) path for the Automotive Technology AAS degree is a joint venture with Ford Motor Company and sponsoring Ford Lincoln-Mercury dealerships. Admission to Ford ASSET is only in odd-numbered years and has specific admission requirements. Please contact the Ford ASSET advisor, the department or sponsoring dealership for details. Students enrolled in Ford ASSET attend class for the first ten weeks of the semester and complete paid work experience of the balance of the semester. General Education courses (English, Communications, etc.) are conducted on a half semester format by special arrangement through the College of Arts and Sciences.

**AUTOMOTIVE TECHNOLOGY (GENERAL MOTORS ASEP OPTION)**

The ASEP (Automotive Student Education Program) option for the Automotive Technology AAS degree is a joint venture with General Motors Company and its sponsoring General Motors dealerships. Admission to General Motors ASEP is only even-numbered years and has specific admission requirements. Please contact the General Motors ASEP advisor, the department or sponsoring dealership for details. Students enrolled in General Motors ASEP attend class for the first ten weeks of the semester and paid work experience the balance of the semester. General Education courses (English, Communications, etc.) are conducted on a condensed semester format by special arrangement through the College of Arts and Sciences.

**HEAVY DUTY TRANSPORTATION AND EQUIPMENT**

The Heavy Duty Transportation and Equipment (HDTE) AAS Degree and Certificate are designed to teach students the skills needed to be successful as technicians in the medium and heavy duty truck and equipment service industry. The AAS Degree and Certificate may be completed in five semesters which includes one summer semester of practicum. Laboratory experiences are performed on equipment and components currently used in the heavy duty transportation, construction and power generation industries. Career opportunities for HDTE graduates include manufacturer and independent repair and maintenance shops, fleets, construction, mining, aviation ground support, and the seafood processing industry. Employers require technicians to be drug free and physically fit, and to have a current vehicle operator’s license with a good driving record. Equal opportunities are available for men and women.

**NONTRANSERPTED DEPARTMENTAL CERTIFICATES OF COMPLETION, AUTOMOTIVE**

**Computer Competency Requirement**

Nontranscripted Automotive Technology certificates require demonstrated computer competency. Computer competency may be demonstrated in any of the following ways:

1. A 3-credit course in a computer language or an introductory course in data processing or microcomputers.
2. Work-related experience verifying computer competency as approved by the faculty advisor.
3. Self-initiated computer competency as approved by the faculty advisor.

Four nontranscripted departmental certificate of completion programs are available:

- **Automotive Electrical**
- **Automotive Brakes, Suspension and Alignment**
- **Automotive Power Trains**
- **Automotive Engine Performance**

Discuss academic plan and scheduling with faculty advisor.

**A. Automotive Electrical**

1. Complete the following courses:

   \[
   \begin{align*}
   \text{ADT A102} & \text{ Introduction to Automotive Technology} & 3 \\
   \text{ADT A121} & \text{ Basic Electrical Systems} & 3 \\
   \text{ADT A131} & \text{ Auto Electrical II} & 3 \\
   \text{ADT A195} & \text{ Automotive Practicum I (1-6)} & 6 \\
   \text{ADT A227} & \text{ Auto Electrical III} & 3
   \end{align*}
   \]

2. A total of 18 credits is required for the nontranscripted departmental certificate of completion.

**B. Automotive Brakes, Suspension and Alignment**

1. Complete the following courses:

   \[
   \begin{align*}
   \text{ADT A102} & \text{ Introduction to Automotive Technology} & 3 \\
   \text{ADT A121} & \text{ Basic Electrical Systems} & 3 \\
   \text{ADT A131} & \text{ Auto Electrical II} & 3 \\
   \text{ADT A150} & \text{ Brake Systems} & 4 \\
   \text{ADT A162} & \text{ Suspension and Alignment} & 4 \\
   \text{ADT A195} & \text{ Automotive Practicum I (1-6)} & 6
   \end{align*}
   \]

2. A total of 23 credits is required for the nontranscripted departmental certificate of completion.

**C. Automotive Power Trains**

1. Complete the following courses:

   \[
   \begin{align*}
   \text{ADT A102} & \text{ Introduction to Automotive Technology} & 3 \\
   \text{ADT A160} & \text{ Manual Drive Trains and Axles} & 4 \\
   \text{ADT A260} & \text{ Electronic and Automatic Transmissions} & 3 \\
   \text{ADT A121} & \text{ Basic Electrical Systems} & 3 \\
   \text{ADT A131} & \text{ Auto Electrical II} & 3 \\
   \text{ADT A195} & \text{ Automotive Practicum I(1-6)} & 6
   \end{align*}
   \]

2. A total of 22 credits is required for the nontranscripted departmental certificate of completion.
D. Automotive Engine Performance
1. Complete the following courses:
   - ADT A102 Introduction to Automotive Technology 3
   - ADT A121 Basic Electrical Systems 3
   - ADT A122 Engine Theory and Diagnosis 3
   - ADT A131 Auto Electrical II 3
   - ADT A140 Automotive Engine Repair 3
   - ADT A202 Auto Fuel and Emissions Systems 4
   - ADT A222 Engine Performance 3
   - ADT A295 Automotive Practicum II 3

2. A total of 25 credits is required for the nontranscripted departmental certificate of completion.

CERTIFICATE, AUTOMOTIVE TECHNOLOGY
Computer Competency Requirement
Automotive Technology certificates require demonstrated computer competency. Computer competency may be demonstrated in any of the following ways:
1. A 3 credit course in a computer language or an introductory course in data processing or microcomputers.
2. Work-related experience verifying computer competency as approved by the faculty advisor.
3. Self-initiated computer competency as approved by the faculty advisor.

MAJOR REQUIREMENTS
1. Complete the following required courses:
   First Semester
   - ADT A102 Introduction to Automotive Technology 3
   - ADT A121 Basic Electrical Systems 3
   - ADT A131 Auto Electrical II 3
   - ADT A150 Brake Systems 4
   - ADT A195 Automotive Practicum I (1-6) 2
   One AAS degree requirement 3
   Second Semester
   - ADT A122 Engine Theory and Diagnosis 3
   - ADT A160 Manual Drive Trains and Axles 4
   - ADT A162 Suspension and Alignment 4
   - ADT A195 Automotive Practicum I (1-6) 2
   One AAS degree requirement 3
   Third Semester
   - ADT A140 Automotive Engine Repair 3
   - ADT A225 Auto Heating and A/C 3
   - ADT A227 Auto Electrical III 3
   - ADT A195 Automotive Practicum I (1-6) 2
   One AAS degree requirement 3
   Fourth Semester
   - ADT A202 Auto Fuel and Emissions System 4
   - ADT A222 Engine Performance 3
   - ADT A260 Electronic & Automatic Transmissions (3) 3
   or
   - ADT A295 Automotive Practicum II (3)
   Two AAS degree requirements 6
2. A total of 64 credits is required for the degree.

ASSOCIATE OF APPLIED SCIENCE, AUTOMOTIVE TECHNOLOGY
Computer Competency Requirement
The AAS degree in Automotive Technology requires demonstrated computer competency. Computer competency may be demonstrated in any of the following ways:
1. A 3 credit course in a computer language or an introductory course in data processing or microcomputers.
2. Work-related experience verifying computer competency as approved by the faculty advisor.
3. Self-initiated computer competency as approved by the faculty advisor.

GENERAL AUTOMOTIVE OPTION
ADMISSION REQUIREMENTS
Specific admission requirements apply to this option. See department for criteria.

GENERAL UNIVERSITY REQUIREMENTS
1. Complete the General University Requirements for Associate Degrees located at the beginning of this chapter.
2. Complete the Associate of Applied Science General Degree Requirements (15 credits) located at the beginning of this chapter.

MAJOR REQUIREMENTS
1. Complete the following required courses:
   First Semester
   - ADT A102 Introduction to Automotive Technology 3
   - ADT A121 Basic Electrical Systems 3
   - ADT A131 Auto Electrical II 3
   - ADT A150 Brake Systems 4
   - ADT A195 Automotive Practicum I (1-6) 2
   One AAS degree requirement 3
   Second Semester
   - ADT A122 Engine Theory and Diagnosis 3
   - ADT A160 Manual Drive Trains and Axles 4
   - ADT A162 Suspension and Alignment 4
   - ADT A195 Automotive Practicum I (1-6) 2
   One AAS degree requirement 3
   Third Semester
   - ADT A140 Automotive Engine Repair 3
   - ADT A225 Auto Heating and A/C 3
   - ADT A227 Auto Electrical III 3
   - ADT A195 Automotive Practicum I (1-6) 2
   One AAS degree requirement 3
   Fourth Semester
   - ADT A202 Auto Fuel and Emissions System 4
   - ADT A222 Engine Performance 3
   - ADT A260 Electronic & Automatic Transmissions (3) 3
   or
   - ADT A295 Automotive Practicum II (3)
   Two AAS degree requirements 6
2. A total of 64 credits is required for the degree.

FORD ASSET PROGRAM OPTION
ADMISSION REQUIREMENTS
Specific admission requirements apply to this option. Student selection occurs up to 3 months prior to the start of the program. Accepted students will have met admission criteria and been selected by a sponsoring Ford Lincoln-Mercury dealership.

GENERAL UNIVERSITY REQUIREMENTS
1. Complete the General University Requirements for Associate Degrees located at the beginning of this chapter.
2. Complete the Associate of Applied Science General Degree Requirements (15 credits) located at the beginning of this chapter.

MAJOR REQUIREMENTS
1. Complete the following required courses:
   First Semester
   - ADT A102 Introduction to Automotive Technology 3
   - ADT A121 Basic Electrical Systems 3
   - ADT A131 Auto Electrical II 3
   - ADT A150 Brake Systems 4
   - ADT A195 Automotive Practicum I (1-6) 2
   One AAS degree requirement 3
2. A total of 67 credits is required for the degree.

GENERAL MOTORS AUTOMOTIVE SERVICE EDUCATION PROGRAM (ASEP) OPTION

ADMISSION REQUIREMENTS

Complete the following application procedures:

1. Instructor approval is required for admission to the ASEP option. Prospective students should provide the UAA ASEP instructor with a resume and a copy of their driving record.

2. Admission to UAA ASEP requires employment by a sponsoring Alaskan General Motors dealership.

3. Apply for admission to UAA and to the UAA ASEP department by contacting the Automotive and Diesel Technology Department, University of Alaska Anchorage, 3211 Providence Drive, Anchorage, Alaska 99508. Telephone (907) 786-1461.

4. Have official high school transcripts, or official GED, and any vocational-technical training certificates sent to UAA Enrollment Services, 3211 Providence Drive, Anchorage, Alaska 99508.

5. Students must provide evidence of math competency equivalent to completion of MATH A055. This may be accomplished by:
   a. A course in computers (see faculty advisor for approved courses).
   b. Documented work experience verifying computer competency as approved by the faculty advisor.
   c. Demonstrated competency in computers as approved by the faculty advisor.

6. Demonstrate English language proficiency through appropriate score on a UAA approved placement test administered by Testing and Assessment Services. Call (907) 786-4500 to make arrangements.

GENERAL UNIVERSITY REQUIREMENTS

1. Complete the General University Requirements for Associate Degrees located at the beginning of this chapter.

2. Complete the Associate of Applied Science General Degree Requirements (15 credits) located at the beginning of this chapter.

MAJOR REQUIREMENTS

1. Complete the following required courses:

   **First Semester**
   - ADT A102 Introduction to Automotive Technology 3
   - ADT A121 Basic Electrical Systems 3
   - ADT A131 Auto Electrical II 3
   - ADT A150 Brake Systems 4
   - ADT A195 Automotive Practicum 2
   - One AAS degree requirement

   **Second Semester**
   - ADT A122 Engine Theory and Diagnosis 3
   - ADT A160 Manual Drive Trains and Axles 4
   - ADT A162 Suspension and Alignment 4
   - ADT A195 Automotive Practicum 2
   - One AAS degree requirement

   **Third Semester**
   - ADT A140 Automotive Engine Repair 3
   - ADT A225 Auto Heating and A/C 3
   - ADT A227 Auto Electrical III 3
   - ADT A195 Automotive Practicum 2
   - One AAS degree requirement

   **Fourth Semester**
   - ADT A202 Fuel and Emissions 4
   - ADT A222 Engine Performance 3
   - ADT A260 Electronic and Automatic Transmissions 3
   - ADT A295 Practicum II 3
   - Two AAS degree requirements

   2. A total of 67 credits is required for the degree.

CERTIFICATE, HEAVY DUTY TRANSPORTATION AND EQUIPMENT

ADMISSION REQUIREMENTS

Satisfy the Admission to Certificate and Associate Degree Programs Requirements in Chapter 7, “Academic Standards and Regulations.” Students must complete the following admission requirements:

1. Submit UAA Undergraduate Application for Admission for the Heavy-Duty Equipment Certificate.

2. Placement at the MATH A055 entry-level or higher. For testing schedule contact Testing and Assessment Services at (907) 786-4500.

3. Placement at the ENGL A111 entry-level or higher. For testing schedule contact Testing and Assessment Services at (907) 786-4500.

4. Students must demonstrate welding competency using one of the following methods:
   a. A course in welding (see faculty advisor for approved courses).
   b. Documented work experience verifying welding competency as approved by the faculty advisor.
   c. Demonstrated competency in welding as approved by the faculty advisor.

5. Students must demonstrate computer competency using one of the following methods:
   a. A course in computers (see faculty advisor for approved courses).
   b. Documented work experience verifying computer competency as approved by the faculty advisor.
   c. Demonstrated competency in computers as approved by the faculty advisor.

GENERAL UNIVERSITY REQUIREMENTS

Complete the General University Requirements for Certificates listed at the beginning of this chapter for Certificates.

MAJOR REQUIREMENTS

1. Complete these required courses:
   - ADT A121 Basic Electrical Systems 3
   - ADT A131 Auto Electrical II 3
   - ADT A151 Medium/Heavy-Duty Engine Repair 3
   - ADT A152 Heavy-Duty Suspension and Steering 4
   - ADT A153 Medium/Heavy-Duty Engine Lab 3
   - ADT A155 Heavy-Duty Brake Systems 4
   - ADT A156 Heavy-Duty Maintenance Inspection 6
   - ADT A195 Automotive Practicum I (1-6) 6
   - ADT A225 Auto Heating and A/C 3
   - ADT A227 Auto Electrical III 3
   - ADT A266 Heavy Duty Power Systems Lab 4
   - ADT A267 Heavy Duty Fuel Systems 4
   - ADT A268 Hydraulics and Pneumatics 4
   - ADT A269 Heavy Duty Drive Trains 4

   2. A total of 51 credits is required for the certificate.
ASSOCIATE OF APPLIED SCIENCE, HEAVY DUTY TRANSPORTATION AND EQUIPMENT

ADMISSION REQUIREMENTS
Satisfy the Admission to Certificate and Associate Degree Programs Requirements in Chapter 7, “Academic Standards and Regulations.” Students must complete the following admission requirements:

1. Submit UAA Undergraduate Application for Admission for the Heavy-Duty Transportation and Equipment Associate of Applied Science.
2. Placement at the MATH A055 entry-level or higher. For testing schedule contact Testing and Assessment Services at (907) 786-4500.
3. Placement at the ENGL A111 entry-level or higher. For testing schedule contact Testing and Assessment Services at (907) 786-4500.
4. Students must demonstrate welding competency using one of the following methods:
   a. A course in welding (see faculty advisor for approved courses).
   b. Documented work experience verifying welding competency as approved by the faculty advisor.
   c. Demonstrated competency in welding as approved by the faculty advisor.
5. Students must demonstrate computer competency using one of the following methods:
   a. A course in computers (see faculty advisor for approved courses).
   b. Documented work experience verifying computer competency as approved by the faculty advisor.
   c. Demonstrated competency in computers as approved by the faculty advisor.

GENERAL UNIVERSITY REQUIREMENTS

1. Complete the General University Requirements for Associate Degrees listed at the beginning of this chapter.
2. Complete the Associate of Applied Science General Degree Requirements (15) credits located at the beginning of this chapter.

MAJOR REQUIREMENTS

1. Complete these required courses:
   - ADT A121 Basic Electrical Systems 3
   - ADT A131 Auto Electrical II 3
   - ADT A151 Medium/Heavy-Duty Engine Repair 3
   - ADT A152 Heavy-Duty Suspension and Steering 4
   - ADT A153 Medium/Heavy Engine Lab 3
   - ADT A155 Heavy Duty Brake Systems 4
   - ADT A156 Heavy Duty Maintenance Inspection 6
   - ADT A195 Automotive Practicum I (1-6) 6
   - ADT A225 Auto Heating and A/C 3
   - ADT A227 Auto Electrical III 3
   - ADT A266 Heavy Duty Power Systems Lab 4
   - ADT A267 Heavy Duty Fuel Systems 4
   - ADT A268 Hydraulics and Pneumatics 4
   - ADT A269 Heavy Duty Drive Trains 4
2. A total of 66 credits is required for the AAS degree.

FACULTY

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AVIATION TECHNOLOGY

http://aviation.uaa.alaska.edu
Aviation Complex (AVNC), 2811 Merrill Field Drive, (907) 264-7400

The Aviation Technology Division (ATD) is a component of the University of Alaska Anchorage, Community and Technical College and is located at the Aviation Technology Center on Merrill Field Airport approximately two miles north of the UAA main campus. The mission of the ATD is to enhance, promote, and provide quality aviation education, research, and service worldwide. The Division supplies graduates for skilled and professional aviation-related positions through five academic programs of study:

The Aviation Maintenance Technology (AMT) program is a Federal Aviation Administration (FAA) approved and nationally recognized course of study that is designed to prepare graduates for entry into positions as maintenance technicians in general aviation, corporate aviation, airlines or aerospace manufacturers. In addition to traditional aircraft maintenance courses, the curriculum emphasizes modern aircraft systems including electronics, composite structures, automatic controls and turbine engines. The ATD offers two Aviation Maintenance Certificates, one with an Airframe, and the other with a Powerplant emphasis.

The FAA approved AMT certificate programs provide all of the required content to prepare students to achieve FAA certification as Aircraft Mechanics with Airframe and/or Powerplant ratings. Upon completion of the UAA certificate programs, students may take written, oral and practical tests that are administered by FAA designees. Those who achieve passing scores on these tests are awarded the Aircraft Mechanic Certificate with appropriate rating(s) by the FAA.

After earning either certificate, additional study allows a student to earn an Associate of Applied Science (AAS) degree in Aviation Maintenance Technology.

The Aviation Administration/Management program prepares students for various administration and management positions within the aviation industry. The AAS degree in Aviation Administration provides an introduction to administrative duties and requirements as well as the skills necessary to provide administrative support while the Bachelor of Science in Aviation Technology (BSAT) with the Aviation Management emphasis is designed to prepare graduates for entry-level management positions in all aspects of the aviation industry. This emphasis area includes courses specifically written to familiarize the student with the unique operational and management requirements of airlines, airports, and general aviation support operations.

The Air Traffic Control (ATC) program provides enhanced career opportunities for graduates, preparing students for careers in air traffic in both the private and public sectors. It is one of thirteen ATC programs in colleges and universities nation-wide approved by the Federal Aviation Administration as a participant in the Collegiate Training Initiative (CTI) where qualified graduates of the program are eligible for direct hire by the Federal Aviation Administration. The ATC program also has the distinction of being the only university program that provides qualified graduates direct job placement into the Flight Service Station career field in Alaska with no additional training at the FAA Academy. The AAS degree provides students with basic entry level requirements while the BSAT degree with an Air Traffic Control emphasis is available for students wishing to prepare for management positions in the air traffic career field.
The Professional Piloting program prepares graduates for careers in professional flying. Both an AAS degree and the BSAT degree with a Professional Piloting emphasis are available. The associated knowledge and airborne flight training required for pilots comprise the majority of the Professional Piloting degree core courses. The UAA professional pilot training program is certified by the FAA under Part 141 of the Federal Aviation Regulations. Both ground and airborne flight training are provided utilizing FAA approved curricula. State-of-the-art airplane simulators and modern, fully equipped flight training airplanes enhance the educational experience of the students.

The Aviation Minor allows those students pursuing other than aviation degrees the opportunity to gain aviation related knowledge to complement their major.

All students must meet with an academic advisor in the ATD prior to beginning any program of study and are encouraged to meet each semester for the purpose of reviewing their academic progress and planning future courses. It is particularly important for students to meet with their advisor whenever academic difficulties arise. Degree check sheets are available in the Aviation Technology Division office.

Note: Individuals employed in the aviation industry desiring to update skills and knowledge may take random courses. These individuals are strongly encouraged to contact the ATD office about prerequisites and other lab or course requirements.

**ASSOCIATE OF APPLIED SCIENCE, AIR TRAFFIC CONTROL**

**ADMISSION REQUIREMENTS**
See Certificate and Associate Degree Program Admission Requirements at the beginning of this chapter.

**FEDERAL AVIATION ADMINISTRATION (FAA)**

**RECOMMENDATION FOR EMPLOYMENT**
To receive a university recommendation for employment with the FAA, students must have a 3.0 combined average in the following Air Traffic Control courses: AT A143, A144, A147, A240, A241, A242, and A243.

**GENERAL UNIVERSITY REQUIREMENTS**

1. Complete the General University Requirements for Associate Degrees located at the beginning of this chapter.

2. Complete the Associate of Applied Science, General Degree Requirements (15 credits) located at the beginning of this chapter. ENGL A212 is recommended. Any English course used to satisfy the Humanities General Education Requirement must be different from the Written Communications requirement and have a course number higher than ENGL A111.

**SPECIAL CONSIDERATIONS**

UAA has no restrictions on age or physical condition of students. However, students desiring employment with the FAA should be aware of employment requirements:

1. Medical Certificate is required as depicted in FAR 65.49 and 67 Subpart C.

2. 30-year-old maximum age restriction for students anticipating employment in terminal or en route options.

3. For employment considerations with the Federal Aviation Administration (FAA), students must receive a PASS score on the Air Traffic-Selection and Training (ATSAT) or Office of Personnel Management (OPM) examination administered by the FAA. Either examination provides a systematic process for continued enhancement of air traffic selection and training by testing candidates for recognition and cognitive skills required in the air traffic specialty and to identify the “composite controller.”

4. Students with low reading comprehension and math skills should first take preparatory courses. The ATC program requires extensive reading and interpreting of technical information.

**MAJOR REQUIREMENTS**

1. Complete the following required courses:
   - AT A100 Private Pilot Ground School 3
   - AT A102 Introduction to Aviation Technology 3
   - AT A132 History of Aviation 3
   - AT A143 ATC Regulations 3
   - AT A144 ATC Flight Procedures 3
   - AT A147 Pilot/Controller Techniques 3
   - AT A225 Elements of Weather 3
   - AT A240 Operations in Flight Service Station 3
   - AT A241 Control Tower Operations 3
   - AT A241L Control Tower Operations Lab 1
   - AT A242 ATC Terminal Radar Procedures 3
   - AT A242L ATC Terminal Radar Procedures Lab 1
   - AT A243 ATC Enroute Procedures 3
   - AT A243L ATC Enroute Procedures Lab 1
   - AT A325 Tools for Weather Briefing 3

   One of the following: 3
   - AT A133 Aviation Law and Regulations (3)
   - AT A134 Principles of Aviation Administration (3)

   One of the following: 3
   - AT A231 Search, Survival, and Rescue (3)
   - AT A232 Advanced Aviation Navigation (3)
   - AT A233 Aviation Safety (3)

2. A total of 60 credits are required for the degree.

3. See the Aviation Technology Division Advisor for appropriate sequence of courses.

**ASSOCIATE OF APPLIED SCIENCE, AVIATION ADMINISTRATION**

**ADMISSION REQUIREMENTS**
See Certificate and Associate Degree Program Admission Requirements at the beginning of this chapter.

**GENERAL UNIVERSITY REQUIREMENTS**

1. Complete the General University Requirements for Associate Degrees located at the beginning of this chapter.

2. Complete the Associate of Applied Science, General Degree Requirements (15 credits) located at the beginning of this chapter.

**MAJOR REQUIREMENTS**

1. Complete the following required courses:
   - ACCT A101 Principles of Financial Accounting I 3
   - ACCT A102 Principles of Financial Accounting II 3
   - AT A100 Private Pilot Ground School 3
   - AT A102 Introduction to Aviation Technology 3
   - AT A132 History of Aviation 3
   - AT A133 Aviation Law and Regulations 3
   - AT A134 Principles of Aviation Administration 3
   - AT A233 Aviation Safety 3
   - AT A235 Elements of Weather 3
   - *BA A151 Introduction to Business (3) 3

   or

   - BA A231 Fundamentals of Supervision (3)
   - CIS A105 Introduction to Personal Computers and Application Software (3) 3

   or

   - CIS A110 Computer Concepts in Business (3)
   - CIOS A116 Business Calculations 3
   - *PHIL A301 Ethics 3

   One of the following: 3
   - *PHIL A301 Ethics 3

   or
   - *PHIL A301 Ethics 3
Two of the following Selective Courses: 6
   BA A166  Small Business Management (3)
   CIOS A101  Keyboarding (3)
   CIOS A165  Office Procedures (3)
   *ECON A201  Principles of Macroeconomics (3)
*Courses may be used to fulfill the Associate of Applied Science, General Degree Requirements.

2. A total of 60 credits are required for the degree.
3. See the Aviation Technology Division Advisor for appropriate sequence of courses.

CERTIFICATE, AVIATION MAINTENANCE TECHNOLOGY

UAA ADMISSION REQUIREMENTS
See Certificate Program Admission Requirements at the beginning of this chapter.

AMT PROGRAM ADMISSION REQUIREMENTS
Apply for admission to UAA and to the AMT program by contacting the UAA Aviation Technology Division, Aviation Maintenance Technology program at 2811 Merrill Field Drive, Anchorage, Alaska 99501. Telephone: (907) 264-7400, Fax: (907) 264-7400 or at http://www.uaa.alaska.edu/aviation.

SPECIAL CONSIDERATIONS
1. Successful progress through the AMT program requires that all students have an algebra proficiency at the MATH A055 level (Math A105 is highly recommended) and an English proficiency at the PRPE A108 or ENGL A109 level. Math and English courses should be taken prior to entry into the AMT program. Under certain circumstances Math and English courses may be taken during the first semester with some AMT courses, see an advisor before registering. The AMT program courses are sequential and the student is cautioned that taking courses out of sequence will extend the program beyond its normal length. Typically, AMT courses have prerequisites and advisor approval is required prior to registration for all AMT courses.
2. Present evidence of a proficiency in mathematics at or exceeding the MATH A055 level. An appropriate score on a Math Placement Test administered by Advising and Testing may also be used.
3. Demonstrate English language proficiency through placement into PRPE A108 (or better). ACT English scores, SAT Verbal scores, or an appropriate score on the UAA approved English Exam. Generally, applicants eligible for entry into PRPE A108 or ENGL A109 have sufficient proficiency for entry into the AMT program.

PROGRAM REQUIREMENTS
1. Core Courses apply to both certificates: complete the following required courses:
   
   **General subject areas:**
   - AMT A170  Aircraft Ground Operations and Safety 1
   - AMT A171  Basic Aerodynamics 3
   - AMT A172  Aircraft Publications, Regulations and Records 3
   - AMT A174  Fundamentals of Aircraft Electronics 3
   - AMT A174L  Fundamentals of Aircraft Electronics Lab 2
   - AMT A175  Drawing and Precision Measurement 2
   - AMT A176  Aircraft Materials and Processes I 2
   - AMT A186  Aircraft Non-Destructive Inspection Methods 3

   **Combined General, Airframe & Powerplant subject areas:**
   - AMT A181  Aircraft Fuel Systems 3
   - AMT A181L  Aircraft Fuel Systems Lab 1
   - AMT A272  Aircraft Electrical Hardware & Systems 3
   - AMT A274  Aircraft Electronic Systems 5
   - AMT A274L  Aircraft Electronic Systems Lab 1

2. For the AMT Powerplant Certificate, complete the above core courses plus the following powerplant courses:
   - AMT A177  Reciprocating Engine Theory 2
   - AMT A178  Turbine Engine Theory 2
   - AMT A187  Aircraft Reciprocating Engine Overhaul 3

2. For the AMT Airframe Certificate, complete the above core courses plus the following airframe courses:
   - AMT A185  Aircraft Sheetmetal Structures 3
   - AMT A185L  Aircraft Sheetmetal Structures Lab 2
   - AMT A273  Aircraft Fluid Power Systems 2
   - AMT A273L  Aircraft Fluid Power Systems Lab 2
   - AMT A283  Aircraft Auxiliary Systems 3
   - AMT A283L  Aircraft Auxiliary Systems Lab 1
   - AMT A285  Aircraft Bonded Structures 4
   - AMT A285L  Aircraft Bonded Structures Lab 1
   - AMT A286  Aircraft Materials and Processes II 2
   - AMT A364  Aircraft Avionics Systems 3
   - AMT A369  Airframe Inspections & Assembly 3
   - AMT A369L  Airframe Inspections & Assembly Lab 2

3. A total of 60 credits are required for the AMT Powerplant Certificate and the AMT Airframe Certificate.
4. See the Aviation Technology Division Advisor for appropriate sequence of courses.

ASSOCIATE OF APPLIED SCIENCE, AVIATION MAINTENANCE TECHNOLOGY

ADMISSION REQUIREMENTS
See Certificate and Associate Degree Program Admission Requirements at the beginning of this chapter.

AMT PROGRAM ADMISSION REQUIREMENTS
Apply for admission to UAA and to the AMT program by contacting the UAA Aviation Technology Division, Aviation Maintenance Technology program at 2811 Merrill Field Drive, Anchorage, Alaska 99501. Telephone: (907) 264-7400, Fax: (907) 264-7400 or at http://www.uaa.alaska.edu/aviation.

GENERAL UNIVERSITY REQUIREMENTS
1. Complete the General University Requirements for Associate Degrees located at the beginning of this chapter.
2. Complete the Associate of Applied Science, General Degree Requirements (15 credits) located at the beginning of this chapter.

SPECIAL CONSIDERATIONS
1. This degree requires computer competency, which may be demonstrated by any one of the following:
   A. A 3 credit course in computer language or an introductory course in data processing or microcomputers.
   B. Work-related experience verifying computer literacy as approved by the faculty advisor.
   C. Self-initiated computer literacy as approved by the faculty advisor.
2. Demonstrate a proficiency in mathematics at or exceeding the intermediate algebra (MATH A105) level.
3. The AAS degree normally requires one semester of study beyond a certificate program. AMT students may elect to continue their studies while pursuing a Bachelor of Science in Aviation Technology or Bachelor of Science in Technology at UAA. Those intending to pursue a four-year degree must discuss their plans with an AMT faculty advisor for proper course sequence.
4. AAS degree candidates who have completed an FAA approved program in aviation maintenance at a nationally or regionally accredited institution, passed
Major Requirements

1. Complete the following core requirements:
   - AMT A170 Aircraft Ground Operations and Safety 1
   - AMT A171 Basic Aerodynamics 3
   - AMT A172 Aircraft Publications, Regulations and Records 3
   - AMT A174 Fundamentals of Aircraft Electronics 3
   - AMT A174L Fundamentals of Aircraft Electronics Lab 2
   - AMT A175 Drawing and Precision Measurement 2
   - AMT A176 Aircraft Materials and Processes I 2
   - AMT A181 Aircraft Fuel Systems 3
   - AMT A181L Aircraft Fuel Systems Lab 1
   - AMT A186 Aircraft Non-Destructive Inspection Methods 3
   - AMT A222 Aircraft Electrical Hardware & Systems 3
   - AMT A224 Aircraft Electronic Systems 5
   - AMT A224L Aircraft Electronic Systems Lab 1
   - AMT A273 Aircraft Fluid Power Systems 2
   - AMT A273L Aircraft Fluid Power Systems Lab 2
   - AMT A279 Aircraft Turbine Engine Repair and Overhaul 3
   - AMT A279L Aircraft Turbine Engine Repair & Overhaul Lab 1
   - AMT A282 Aircraft Propeller Systems 1
   - AMT A284 Aircraft Electrical Machinery 2
   - AMT A284L Aircraft Electrical Machinery Lab 2
   - AMT A286 Reciprocating Engine Installation & Operations 3
   - AMT A286L Reciprocating Engine Installation & Ops Lab 2
   - AMT A289 Aircraft Turbine Installation & Operations 3
   - AMT A289L Aircraft Turbine Installation & Operations Lab 2
   - AMT A295 Aircraft Auxiliary Systems 3
   - AMT A295L Aircraft Auxiliary Systems Lab 1
   - AMT A297 Aircraft Bonded Structures 4
   - AMT A297L Aircraft Bonded Structures Lab 1
   - AMT A298 Aircraft Materials and Processes II 2
   - AMT A364 Aircraft Avionics Systems 3
   - AMT A369 Airframe Inspections & Assembly 3
   - AMT A369L Airframe Inspections & Assembly Lab 2

2. Complete either, A. Powerplant courses or B. Airframe courses:

A. Powerplant courses (28 credits):
   - AMT A177 Reciprocating Engine Theory 2
   - AMT A178 Turbine Engine Theory 2
   - AMT A187 Aircraft Reciprocating Engine Overhaul 3
   - AMT A187L Aircraft Reciprocating Engine Overhaul Lab 2
   - AMT A279 Aircraft Turbine Engine Repair and Overhaul 3
   - AMT A279L Aircraft Turbine Engine Repair & Overhaul Lab 1
   - AMT A282 Aircraft Propeller Systems 1
   - AMT A284 Aircraft Electrical Machinery 2
   - AMT A284L Aircraft Electrical Machinery Lab 2
   - AMT A286 Reciprocating Engine Installation & Operations 3
   - AMT A286L Reciprocating Engine Installation & Ops Lab 2
   - AMT A289 Aircraft Turbine Installation & Operations 3
   - AMT A289L Aircraft Turbine Installation & Operations Lab 2

B. Airframe courses (28 credits):
   - AMT A185 Aircraft Sheetmetal Structures 3
   - AMT A185L Aircraft Sheetmetal Structures Lab 2
   - AMT A273 Aircraft Fluid Power Systems 2
   - AMT A273L Aircraft Fluid Power Systems Lab 2
   - AMT A283 Aircraft Auxiliary Systems 3
   - AMT A283L Aircraft Auxiliary Systems Lab 1
   - AMT A285 Aircraft Bonded Structures 4
   - AMT A285L Aircraft Bonded Structures Lab 1
   - AMT A286 Aircraft Materials and Processes II 2
   - AMT A364 Aircraft Avionics Systems 3
   - AMT A369 Airframe Inspections & Assembly 3
   - AMT A369L Airframe Inspections & Assembly Lab 2

3. A total of 75 credits are required for the degree.
4. See the Aviation Technology Division Advisor for appropriate sequence of courses.

ASSOCIATE OF APPLIED SCIENCE, PROFESSIONAL PILOTING

ADMISSION REQUIREMENTS

See Associate Degree Program Admission Requirements at the beginning of Chapter 7.

GENERAL UNIVERSITY REQUIREMENTS

1. Complete the General University Requirements for Associate Degrees located at the beginning of Chapter 7.
2. Complete the Associate of Applied Science, General Degree Requirements (15 credits) located at the beginning of this chapter.

SPECIAL CONSIDERATIONS

The following applies for those students desiring to pursue a Professional Piloting degree or BSAT emphasis:

1. Costs for flight training are not included in University tuition and fees.
2. Students must pass an FAA Class II medical exam before beginning any flight training.
3. Students must present verification of U.S. citizenship before beginning any flight or airplane simulator training. The following three methods are acceptable: an unexpired U.S. Passport, an original or raised seal official copy of Birth Certificate, or an original or raised seal official copy of Certificate of Naturalization. Non-U.S. citizens must register and receive approval from the Transportation Security Agency before beginning any flight or simulator training; please contact the Aviation Technology office for information.
4. Once formally registered for Aviation classes at UAA, all subsequent flight training must be completed in residence at UAA. Flight training through other programs while enrolled at UAA is not permitted. Enrolled students who receive flight training outside UAA that is required under specific curricula will not receive credit for the corresponding UAA courses.
5. Under certain circumstances, academic credit may be granted for pilot certificates/ratings earned prior to enrolling at UAA. Contact a faculty advisor for determination.
6. Once enrolled in any flight training course, students are expected to complete the course requirements within the equivalent of two semesters. Failure to do so will be considered unsatisfactory progress and will result in a failing (F) grade.
7. Military pilots currently, or within the preceding 12 months, on active flight status may petition to have appropriate curriculum requirements awarded based on FAA pilot certificates without a proficiency check.
8. All students are required to complete a minimum of two advanced flight courses (300-400) in residence to meet graduation requirements.

MAJOR REQUIREMENTS

1. Complete the following required courses:
   - AT A100 Private Pilot Ground School 3
   - AT A101 Pre-professional Flying 2
   - AT A102 Introduction to Aviation Technology 3
   - AT A116 Instrument Ground School 3
   - AT A126 Instrument Flying 2
   - AT A132 History of Aviation 3
   - AT A133 Aviation Law and Regulations 3
   - AT A200 Commercial Ground School 3
   - AT A218 Commercial Flying I 1.5
   - AT A219 Commercial Flying II 1.5
   - AT A220 Commercial Flying III 2
   - AT A231 Search, Survival and Rescue 3
   - AT A233 Aviation Safety 3
   - AT A235 Elements of Weather 3
   - AT A337 Airline Operations 3
   - CIS A110 Computer Concepts in Business (3) or
   - *CS A100 Introduction to Computers (3)
   - *ENGL A212 Technical Writing (Note: prerequisite) 3

*indicates a prerequisite for the course.
**BACHELOR OF SCIENCE, AVIATION TECHNOLOGY**

The Bachelor of Science degree in Aviation Technology prepares individuals for professional positions within the aviation industry. Related career opportunities are found with airlines, airports, general aviation, government organizations, education, and the aerospace industry.

Within the degree there are three emphasis areas: Air Traffic Control, Aviation Management, and Professional Piloting. The specific interests and career goals of each student determine the emphasis area to pursue. The degree includes university general education requirements, a common set of core courses, and courses relative to each individual emphasis.

**ADMISSION REQUIREMENTS**

1. Complete the Admission to Baccalaureate Programs Requirements in Chapter 7, "Academic Standards and Regulations."
2. There are no additional admission requirements. However, students must be able to meet any certification requirements established by applicable government agencies. A strong background in science, math, and reading skills is highly recommended.

**ACADEMIC PROGRESS**

A minimum grade of C in each Aviation Technology course is required to graduate with this degree.

**GRADUATION REQUIREMENTS**

Students must complete the following graduation requirements:

**A. GENERAL UNIVERSITY REQUIREMENTS**

Complete the General University Requirements for All Baccalaureate Degrees listed at the beginning of this chapter.

**B. GENERAL EDUCATION REQUIREMENTS**

Complete the General Education Requirements (GER) for Baccalaureate Degrees listed at the beginning of this chapter.

**C. MAJOR REQUIREMENTS**

1. Complete the following required common core courses:
   - AT A100 Private Pilot Ground School 3
   - AT A102 Introduction to Aviation Technology 3
   - AT A133 Aviation Law and Regulations 3
   - AT A233 Aviation Safety 3
   - AT A235 Elements of Weather 3
   - AT A331 Human Factors in Aviation 3
   - AT A415 Company Resource Management 3
   - AT A425 Civil Aviation Security 3
   - AT A492 Air Transportation System Seminar 3
   - BA A300 Organizational Theory and Behavior 3
   - BA A361 Human Resource Management 3
   - BA A461 Negotiations and Conflict Management 3
   - BA A488 The Environment of Business 3
   - CIS A110 Computer Concepts in Business 3
   - *ECON A201 Principles of Macroeconomics 3
   - *ENGL A212 Technical Writing (Note: prerequisite) 3

2. A total of 63 - 65 credits are required for the degree.
3. See the Aviation Technology Division Advisor for appropriate sequence of courses.

**Aviation Management Emphasis**

1. Required Emphasis Courses:
   - ACCT A201 Principles of Financial Accounting 3
   - ACCT A202 Principles of Managerial Accounting 3
   - AT A132 History of Aviation 3
   - AT A134 Principles of Aviation Administration 3
   - AT A335 Airport Operations 3
   - AT A336 Air Service Operations 3
   - AT A337 Airline Operations 3
   - AT A431 Aircraft Accident Investigation 3
   - *BA A151 Introduction to Business 3
   - BA A343 Principles of Marketing 3
   - BA A447 International Marketing 3
   - CIS A305 Managerial Presentations 3
   - CIS A376 Management Information Systems 3
   - ECON A202 Principles of Microeconomics 3
   - *PARL A101 Introduction to Law 3
   - Advisor Approved Elective 3

3. **Courses may be used to fulfill the Associate of Applied Science, General Degree Requirements.**

2. Select one of the three following BSAT emphasis areas and complete the listed required courses.

**Air Traffic Control Emphasis**

1. Federal Aviation Administration (FAA) Recommendation for Employment and Special Considerations contained in the Associate of Applied Science, Air Traffic Control apply to this emphasis area.

2. Required Emphasis Courses:
   - AT A132 History of Aviation 3
   - AT A143 ATC Regulations 3
   - AT A144 ATC Flight Procedures 3
   - AT A147 Pilot/Controller Techniques 3
   - AT A240 Ops in Flight Service Station 3
   - AT A241 Control Tower Operations 3
   - AT A241L Control Tower Ops Lab 1
   - AT A242 ATC Terminal Radar Proc 3
   - AT A242L ATC Terminal Radar Proc Lab 1
   - AT A243 ATC En Route Procedures 3
   - AT A243L ATC En Route Procedures Lab 1
   - AT A325 Tools for Weather Briefing 3
   - AT A340 Terminal Instrument Procedures 3
   - AT A440 Facility Operation and Administration 3
   - CIS A305 Managerial Presentations 3
   - CIS A376 Management Information Systems 3
   - PSY A380 Stress Mgmt: Coping With Stress 3

3. A minimum of 124 credits are required for the Aviation Management emphasis, of which a minimum of 48 credits must be upper-division.
4. See the Aviation Technology Division Advisor for appropriate sequence of courses.

**Professional Piloting Emphasis**

1. Special Considerations contained in the Associate of Applied Science, Professional Piloting apply to this emphasis area.

2. Required Emphasis Courses:
   - ACCT A201 Principles of Financial Accounting 3
   - AT A101 Pre-professional Flying 2
   - AT A116 Instrument Ground School 3
   - AT A126 Instrument Flying 2

3. A minimum of 124 credits are required for the Air Traffic Control emphasis, of which a minimum of 42 credits must be upper-division.
4. See the Aviation Technology Division Advisor for appropriate sequence of courses.
MINOR, AVIATION TECHNOLOGY

Students majoring in another discipline who wish to minor in Aviation Technology must complete the following requirements. A total of 18 credits are required for the minor, 6 of which must be upper-division. Students are encouraged to select courses from the following list. Students may request prior approval of other Aviation Technology courses.

Complete 18 credits from the following:

- AT A100 Private Pilot Ground School (3)
- AT A132 History of Aviation (3)
- AT A133 Aviation Law and Regulations (3)
- AT A147 Pilot/Controller Techniques (3)
- AMT A171 Basic Aerodynamics (3)
- AMT A172 Publications, Regulations and Records (3)
- AMT A177 Reciprocating Engine Theory (2)
- AMT A178 Turbine Engine Theory (2)
- AMT A185/L Airplane Sheet Metal Structures and Lab (3/2)
- AT A233 Aviation Safety (3)
- AT A235 Elements of Weather (3)
- AT A285/L Airplane Bonded Structures and Lab (4/1)
- AT A331 Human Factors in Aviation (3)
- AT A332 Air Service Operations (3)
- AT A334 Aviation Systems (3)
- AT A420 Air Transportation System (3)
- AT A431 Aircraft Accident Investigation (3)
- Advisor Approved Upper-Division Elective (3)

3. A minimum of 122 credits are required for the Professional Piloting emphasis, of which a minimum of 46 credits must be upper-division.

4. See the Aviation Technology Division Advisor for appropriate sequence of courses.

FACULTY

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The Computer Information and Office System (CIOS) program provides career education leading to a Certificate or an Associate of Applied Science degree. It also offers nontranscripted departmental certificates of completion and job enrichment courses. The CIOS program will provide the student the opportunity to develop the skills and qualities required to succeed in a world of technology and rapid change.

Office professionals are at the information center of every office. For years, the office professional’s title was confined to secretary, receptionist, and such specialized titles as legal and medical secretaries. Today, titles reflect the shifting role that is reflected in the increased responsibilities of the office professional. A few of these titles include administrative assistant, executive assistant, technical assistant, payroll assistant, information/database specialist, desktop publishing/photoshop specialist, help-desk technician, web designer.

The CIOS program prepares students for career entry or advancement and also offers skills preparation for personal use. Courses meet the needs of beginning, experienced, or re-entry office workers. While graduating students are prepared for entry-level positions in a wide variety of businesses, the professional and technical skills students acquire will allow rapid progress toward more advanced career opportunities. Microsoft Office Specialist (MOS) and Certified Administrative Professional (CAP) courses are also available to aid students in qualifying for these industry certification examinations.

The following programs are available:

**Nontranscripted Departmental Certificates of Completion:**

- Office Technology
- Bookkeeping
- Medical Office Support
- Web Foundations
- Desktop Publishing and Graphics
- Administrative Office Support
- Legal Office Support

**Certificate**

- Computer Information and Office Systems

**Associate of Applied Science Degree**

- Computer Information and Office Systems

**NONTRANSCRIPTED DEPARTMENTAL CERTIFICATES OF COMPLETION**

A nontranscripted Certificate of Completion is a certificate awarded by an academic department. Nontranscripted Certificates of Completion will be issued by the Computer Information and Office Systems Department in Office Technology, Bookkeeping, Medical Office Support, Web Foundations, Desktop Publishing and Graphics, Administrative Office Support, and Legal Office Support. These certificates are designed to give students intensive training in a specific occupational field and to indicate competence in technical and professional courses. The certificate areas are articulated with the Certificate in Computer Information and Office Systems and the A.A.S. in Computer Information and Office Systems. Students must receive a satisfactory grade (C or higher, or P) in all CIOS courses required in order to be awarded a Nontranscripted Certificate of Completion. To apply for a Nontranscripted Certificate of Completion, contact the CIOS department directly.

**Office Technology**

The Office Technology nontranscripted certificate offers concentrated study in skills required for the administrative office professional. A nontranscripted certificate of completion is available after completing this program.

1. **Basic Computer Skills Core (0-5 credits):**
   - All students are required to take the following basic computer skills core courses or possess equivalent knowledge. Students may take challenge exams or placement tests to prove proficiency in these areas. Beginning computer users are encouraged to take CIOS A113 Operating Systems: MS Windows as the first course.
     - CIOS A101A* Keyboarding A (25 wpm minimum required)
     - CIOS A113 Operating Systems: MS Windows
     - CIOS A130A Word Processing I: MS Word
     - CIOS A135A Spreadsheets I: MS Excel
     - CIOS A146 Internet Concepts and Applications I

2. **Complete 3 credits from the following:**
   - CIOS A101* Keyboarding (3)
   - CIOS A101B* Keyboarding B (1)
   - CIOS A101C* Keyboarding C (1)
   - CIOS A102 Keyboarding Skill Building (1-3)
   - CIOS A201A Document Processing (3)

   *Credit will not be counted for BOTH CIOS A101 (3) and CIOS A101A (1), A101B (1), and A101C (1).

3. **Complete the following 15 credits:**
   - CIOS A125A Electronic Communications I: MS Outlook
   - CIOS A160 Business English
   - CIOS A161A Proofreading
   - CIOS A164 Filing
   - CIOS A165 Office Procedures
   - CIOS A230A Word Processing II: MS Word
   - CIOS A235A Spreadsheets II: MS Excel
   - CIOS A259 Preparing Electronic Documents: Adobe Acrobat
   - CNT A165 Customer Service Fundamentals

4. **Complete 2 credits from the following:**
   - CIOS A282 Office Internship (1-2)
   - CIOS Advisor-approved Electives (1-2)

5. **A total of 20-25 credits is required for the nontranscripted certificate of completion.**

**Bookkeeping**

The Bookkeeping nontranscripted certificate provides essential skills to handle financial transactions and recordkeeping. A nontranscripted certificate of completion is available after completing this program.

1. **Basic Computer Skills Core (0-5 credits):**
   - All students are required to take the following basic computer skills core courses or possess equivalent knowledge. Students may take challenge exams or placement tests to prove proficiency in these areas. Beginning computer users are encouraged to take CIOS A113 Operating Systems: MS Windows as the first course.
     - CIOS A101A Keyboarding A (25 wpm minimum required)
     - CIOS A113 Operating Systems: MS Windows
     - CIOS A130A Word Processing I: MS Word
     - CIOS A135A Spreadsheets I: MS Excel
     - CIOS A146 Internet Concepts and Applications I

2. **Complete 3 credits from the following:**
   - ACCT A101 Principles of Financial Accounting I (3)
   - ACCT A120 Bookkeeping for Business I (3)
   - ACCT A201 Principles of Financial Accounting (3)

3. **Complete the following 17 credits:**
   - CIOS A115 Business Calculators
   - CIOS A118 Payroll Procedures
   - CIOS A120A Bookkeeping Software Apps I: QuickBooks
   - CIOS A125A Electronic Communications I: MS Outlook
   - CIOS A140A Databases I: MS Access
   - CIOS A160 Business English
4. A total of 20-25 credits is required for the nontranscripted certification of completion.

Medical Office Support
The Medical Office Support nontranscripted certificate provides a solid groundwork for individuals seeking a support position in a medical office. A nontranscripted certificate of completion is available after completing this program.

1. Basic Computer Skills Core (0-5 credits):
   All students are required to take the following basic computer skills core courses or possess equivalent knowledge. Students may take challenge exams or placement tests to prove proficiency in these areas. Beginning computer users are encouraged to take CIOS A113 Operating Systems: MS Windows as the first course.
   - CIOS A101A*  Keyboarding A 1
     (25 wpm minimum required)
   - CIOS A113  Operating Systems: MS Windows 1
   - CIOS A130A  Word Processing I: MS Word 1
   - CIOS A135A  Spreadsheets I: MS Excel 1
   - CIOS A146  Internet Concepts and Applications I 1

2. Complete 3 credits from the following:
   - CIOS A101*  Keyboarding (3)
   - CIOS A113  Operating Systems: MS Windows 1
   - CIOS A130C  Word Processing C 1
   - CIOS A130D  Word Processing II: MS Word 1
   - CIOS A135A  Spreadsheets I: MS Excel 1
   - CIOS A146  Internet Concepts and Applications I 1

3. A total of 20-25 credits is required for the nontranscripted department certificate of completion.

Web Foundations
The Web Foundations nontranscripted certificate concentrates on effective information delivery using the web. This program was created specifically for those responsible for planning, designing, producing, and maintaining an organization’s Intranet or web site. A nontranscripted certificate of completion is available after completing this program.

1. Basic Computer Skills Core (0-5 credits):
   All students are required to take the following basic computer skills core courses or possess equivalent knowledge. Students may take challenge exams or placement tests to prove proficiency in these areas. Beginning computer users are encouraged to take CIOS A113 Operating Systems: MS Windows as the first course.
   - CIOS A101A  Keyboarding A 1
     (25 wpm minimum required)
   - CIOS A113  Operating Systems: MS Windows 1
   - CIOS A130A  Word Processing I: MS Word 1
   - CIOS A135A  Spreadsheets I: MS Excel 1
   - CIOS A146  Internet Concepts and Applications I 1

2. Complete the following 20 credits:
   - CIOS A108  Graphic Design Fundamentals for Computer Applications 3
   - CIOS A117  Logic Concepts for Computer Technology 1
   - CIOS A140A  Databases I: MS Access 1
   - CIOS A152A  Digital Imaging Concepts and Applications: Photoshop 3
   - CIOS A153B  Web Site Design: Dreamweaver 3
   - CIOS A156A  Web Graphics: Fireworks 1
   - CIOS A246  Internet Concepts and Applications II 2
   - CIOS Advisor-approved Electives 6
   - Recommend:  Programming Fundamentals
     Web Scripting
     Information Security

3. A total of 20-25 credits is required for the nontranscripted department certificate of completion.

Desktop Publishing and Graphics
The Desktop Publishing and Graphics nontranscripted certificate is designed to give students the ability to be proficient in a variety of digital software programs in order to produce professional-quality print documents and visual presentations. A nontranscripted certificate of completion is available after completing this program.

1. Basic Computer Skills Core (0-5 credits):
   All students are required to take the following basic computer skills core courses or possess equivalent knowledge. Students may take challenge exams or placement tests to prove proficiency in these areas. Beginning computer users are encouraged to take CIOS A113 Operating Systems: MS Windows as the first course.
   - CIOS A101A  Keyboarding A 1
     (25 wpm minimum required)
   - CIOS A113  Operating Systems: MS Windows 1
   - CIOS A130A  Word Processing I: MS Word 1
   - CIOS A135A  Spreadsheets I: MS Excel 1
   - CIOS A146  Internet Concepts and Applications I 1

2. Complete the following 20 credits:
   - CIOS A108  Graphic Design Fundamentals for Computer Applications 3
   - CIOS A135A  Digital Imaging Concepts and Applications: Photoshop 3
   - CIOS A154A  Databases I: MS Access 1
   - CIOS A160  Business English 3
   - CIOS A220A  Records Management 2
   - CIOS A235A  Spreadsheets II: MS Excel 2
   - CIOS A259  Preparing Electronic Documents: Adobe Acrobat 1
   - CIOS Advisor-approved Electives 6
   - Recommend:  Programming Fundamentals
     Web Scripting
     Information Security

3. A total of 20-25 credits is required for the nontranscripted department certificate of completion.

Administrative Office Support
The Administrative Office Support nontranscripted certificate provides a solid foundation of administrative, business, and communication skills, as well as communication and interpersonal skills that provide a foundation for job opportunities in the business world. A nontranscripted certificate of completion is available after completing this program.

1. Must complete the 20-25 credit Office Technology Certificate or equivalent before completing this program.
   - Complete 3 credits from the following:
     - ACCT A101  Principles of Financial Accounting I 3
     - ACCT A120  Bookkeeping for Business I 3
     - ACCT A201  Principles of Financial Accounting 3

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3. Complete the following 14 credits:
- CIOS A140A Databases I: MS Access 1
- CIOS A150A Presentations I: MS PowerPoint 1
- CIOS A240A Databases II: MS Access 2
- CIOS A241 Integrated Applications 3
- CIOS A264A Records Management 2
- CIOS A265 Office Management 3
- CIOS A270 Project Management Fundamentals 2

4. Complete 3 credits from the following:
- CIOS A262 Office Internship (1-3)
- CIOS Advisor-approved Electives (1-3)

5. A total of 20-45 credits is required for the nontranscripted departmental certificate of completion.

Legal Office Support
The Legal Office Support nontranscripted certificate offers a concentrated study in skills that a legal office support professional will need to succeed. A nontranscripted certificate of completion is available after completing this program.

1. Must complete the 20-25 credit Office Technology Certificate or equivalent before completing this program. 0-25
2. Complete 6 credits from the following: 6
   - CIOS A120A Bookkeeping Software Applications I QuickBooks (1)
   - CIOS A140A Databases I: MS Access (1)
   - CIOS A150A Presentations I: MS PowerPoint (1)
   - CIOS A207 Machine Transcription (1)
   - CIOS A240A Databases II: MS Access (2)
   - CIOS A241 Integrated Applications (3)
   - CIOS A151A Presentations II: MS PowerPoint (2)
   - CIOS A260A Business Communications (3)
   - CIOS A270 Project Management Fundamentals (2)

3. Complete 3 credits from the following:
   - CIOS A267 Law Office Procedures: Client Documents (3)
   - CIOS A265 Office Management (3)

4. Complete 3 credits from the following:
   - CIOS A266 Law Office Procedures: Litigation Documents (3)
   - BA A241 Business Law I (3)
   - PARL A101 Introduction to Law (3)

5. Complete 3 credits from the following:
   - CIOS A201A Document Processing (3)
   - CIOS A209A Legal Transcription (3)

6. Complete the following 5 credits:
   - CIOS A269 Alaska Rules of Civil Procedure (3)
   - CIOS A282 Office Internship (2)

   Recommend: Law Office Experience

7. A total of 20-45 credits is required for the nontranscripted departmental certificate of completion. 20-45

CERTIFICATE, COMPUTER INFORMATION AND OFFICE SYSTEMS
This Certificate prepares individuals to secure entry-level employment in positions requiring information technology and administrative support skills. Students interested in this certificate should first apply through the Office of Admissions.

ADMISSION REQUIREMENTS
Satisfy the Admission to Certificate and Associate Degree Programs Requirements in Chapter 7, “Academic Standards and Regulations.”

ACADEMIC PROGRESS
Students must earn a satisfactory grade (C or higher, or P) in all CIOS courses required for the Certificate.

GENERAL UNIVERSITY REQUIREMENTS
Complete the General University Requirements for Certificates located at the beginning of this chapter.

MAJOR REQUIREMENTS
1. Basic Computer Skills Core (0-5 credits):
   All students are required to take the following basic computer skills core courses or possess equivalent knowledge. Students may take challenge exams or placement tests to prove proficiency in these areas. Beginning computer users are encouraged to take CIOS A113 Operating Systems: MS Windows as the first course:
   - CIOS A101A* Keyboarding A (25 wpm minimum required)
   - CIOS A113 Operating Systems: MS Windows
   - CIOS A130A Word Processing I: MS Word
   - CIOS A135A Spreadsheets I: MS Excel
   - CIOS A146 Internet Concepts and Applications I

2. Complete the following requirements for the Certificate in Computer Information and Office Systems. These requirements include:
   - ENGL A111 Methods of Written Communication (3)
   - CIOS A261A Interpersonal Skills in Organizations (recommended) (3)
   - PSY A153 Human Relations (3)

3. Complete the following 3 credits:
   - CIOS A160 Business English
   - MATH A102 Business Math

4. Complete the following 3 credits:
   - CIOS A262A Professional Development (3)

5. Complete one (1) of the following emphasis areas: 20-40
   - Office Technology (20)
     a. Complete 3 credits from the following:
        - CIOS A101* Keyboarding (3)
        - CIOS A101B* Keyboarding B (1)
        - CIOS A101C* Keyboarding C (1)
        - CIOS A102 Keyboarding Skill Building (1-3)
        - CIOS A201A Document Processing (3)
     * Credit will not be counted for BOTH CIOS A101 (3) and CIOS A101A (1), A101B (1), and A101C (1).
     b. Complete the following 15 credits:
        - CIOS A125A Electronic Communications: MS Outlook
        - CIOS A160 Business English
        - CIOS A161A Proofreading
        - CIOS A164 Filing
        - CIOS A165 Office Procedures
        - CIOS A230A Word Processing II: MS Word
        - CIOS A235A Spreadsheets II: MS Excel
        - CIOS A259 Preparing Electronic Documents: Adobe Acrobat
        - CNT A165 Customer Service Fundamentals
     c. Complete 2 credits from the following:
        - CIOS A282 Office Internship (1-2)
        - CIOS Advisor-approved Electives (1-2)

4. A total of 32-37 credits required for the certificate.

Bookkeeping (20)
   a. Complete 3 credits from the following:
      - ACCT A101 Principles of Financial Accounting I (3)
      - ACCT A120 Bookkeeping for Business I (3)
      - ACCT A201 Principles of Financial Accounting (3)
   b. Complete the following 17 credits:
      - CIOS A113 Business Calculators
      - CIOS A118 Payroll Procedures
      - CIOS A201A Document Processing (3)
      - CIOS A260A Business Communications (3)
      - CIOS A264A Records Management 2
      - CIOS A265 Office Management 3
      - CIOS A270 Project Management Fundamentals 2
      - CIOS A282 Office Internship (1-3)
      - CIOS Advisor-approved Electives (1-3)

   Recommend: CIOS 260 Business Communications (3)
4. A total of 32-37 credits is required for the certificate.

Web Foundations (20)

a. Complete the following 20 credits:
   - CIOS A108 Graphic Design Fundamentals for Computer Applications 3
   - CIOS A152A Digital Imaging Concepts and Applications: Photoshop 3
   - CIOS A154A Desktop Publishing I: PageMaker 1
   - CIOS A160 Business English 3
   - CIOS A250A Word Processing II: MS Word 2
   - CIOS A251A Desktop Publishing Concepts and Applications: InDesign 2
   - CIOS A254A Desktop Publishing II: PageMaker 2
   - CIOS A259 Preparing Electronic Documents: Adobe Acrobat 1
   - CIOS Advisor-approved Electives 2
   Recommend: CIOS 260 Business Communications

4. A total of 32-37 credits is required for the certificate.

Desktop Publishing and Graphics (20)

a. Complete the following 20 credits:
   - CIOS A108 Graphic Design Fundamentals for Computer Applications 3
   - CIOS A152A Digital Imaging Concepts and Applications: Photoshop 3
   - CIOS A154A Desktop Publishing I: PageMaker 1
   - CIOS A160 Business English 3
   - CIOS A250A Word Processing II: MS Word 2
   - CIOS A251A Desktop Publishing Concepts and Applications: InDesign 2
   - CIOS A254A Desktop Publishing II: PageMaker 2
   - CIOS A259 Preparing Electronic Documents: Adobe Acrobat 1
   - CIOS Advisor-approved Electives 2
   Recommend: CIOS 260 Business Communications

4. A total of 32-37 credits is required for the certificate.

Medical Office Support (20)

a. Complete 3 credits from the following:
   - CIOS A101* Keyboarding (3)
   - CIOS A101B* Keyboarding B (1)
   - CIOS A101C* Keyboarding C (1)
   - CIOS A102 Keyboarding Skill Building (1-3)
   - CIOS A201 Document Processing (3)

* Credit will not be counted for BOTH CIOS A101 (3) and CIOS A101A (1), A101B (1), and A101C (1).

b. Complete the following 7 credits:
   - CIOS A164 Filing 1
   - CIOS A160 Business English 3
   - CIOS A264A Records Management 2
   - CIOS A282 Office Internship 1

c. Complete the following 10 credits:
   - MA A101 Medical Terminology 3
   - MA A120 Medical Office Procedures I 4
   - MA A140 Medical Transcription (3) 3
   - CIOS A208 Medical Transcription (3)

4. A total of 32-37 credits is required for the certificate.

Administrative Office Support (20-40)

a. Must complete the Office Technology emphasis or equivalent before completing the following:
   - 0-20

b. Complete 3 credits from the following:
   - ACCT A101 Principles of Financial Accounting I (3)
   - ACCT A120 Bookkeeping for Business I (3)
   - ACCT A201 Principles of Financial Accounting (3)

c. Complete the following 14 credits:
   - CIOS A140A Databases I: MS Access 1
   - CIOS A150A Presentations I: MS PowerPoint 1
   - CIOS A240A Databases II: MS Access 2
   - CIOS A241 Integrated Applications 3
   - CIOS A264A Records Management 2
   - CIOS A265 Office Management 3
   - CIOS A270 Project Management Fundamentals 2

d. Complete 3 credits from the following:
   - CIOS A282 Office Internship (1-3)
   - CIOS Advisor-approved Electives (1-3)
   Recommend: CIOS 260 Business Communications (3)

4. A total of 32-37 credits is required for the certificate.

Legal Office Support (20-40)

a. Must complete the Office Technology emphasis or equivalent before completing the following:
   - 0-20

b. Complete 6 credits from the following:
   - CIOS A120A Bookkeeping Software Applications I: QuickBooks (1)
   - CIOS A140A Databases I: MS Access (1)
   - CIOS A150A Presentations I: MS PowerPoint (1)
   - CIOS A207 Machine Transcription (1)
   - CIOS A240A Databases II: MS Access (2)
   - CIOS A241 Integrated Applications (3)
   - CIOS A251A Desktop Publishing Concepts and Applications: InDesign 3
   - CIOS A254A Desktop Publishing II: PageMaker 2
   - CIOS A259 Preparing Electronic Documents: Adobe Acrobat 1
   - CIOS Advisor-approved Electives (1-3)
   Recommend: CIOS 260 Business Communications (3)

c. Complete 3 credits from the following:
   - CIOS A267 Law Office Procedures: Client Documents (3)
   - CIOS A265 Office Management (3)

d. Complete 3 credits from the following:
   - CIOS A266 Law Office Procedures: Litigation Documents (3)
   - BA A241 Business Law I (3)
   - PARL A101 Introduction to Law (3)

e. Complete 3 credits from the following:
   - CIOS A201A Document Processing (3)
   - CIOS A209A Legal Transcription (3)

f. Complete the following 5 credits:
   - CIOS A269 Alaska Rules of Civil Procedure 3
   - CIOS A282 Office Internship 2
   Recommend: Law Office Experience

4. A total of 32-37 credits is required for the certificate.

ASSOCIATE OF APPLIED SCIENCE, COMPUTER INFORMATION AND OFFICE SYSTEMS

This degree prepares individuals to secure entry-level employment in positions requiring information technology and administrative support skills.

ADMISSION REQUIREMENTS
Satisfy the Admission to Certificate and Associate Degree Programs Requirements in Chapter 7, “Academic Standards and Regulations.”

ACADEMIC PROGRESS
Students must earn a satisfactory grade (C or higher, or P) in all CIOS courses required for the degree.

GENERAL UNIVERSITY REQUIREMENTS
1. Complete the General University Requirements for Associate Degrees located at the beginning of this chapter.
2. Complete the Associate of Applied Science General Degree Requirements located at the beginning of this chapter. CIOS A260A, ENGL A212, and PSY A153 recommended.

Note: Students should consider courses from the Baccalaureate Degree General Education Requirements List to prepare for possible future Baccalaureate degree work.
MAJOR REQUIREMENTS

1. Basic Computer Skills Core (0-5 credits):
   All students are required to take the following basic computer skills core courses or possess equivalent knowledge. Students may take challenge exams or placement tests to prove proficiency in these areas. Beginning computer users are encouraged to take CIOS A113 Operating Systems: MS Windows as the first course.

   CIOS 101A* Keyboarding A 1
   CIOS 113 Operating Systems: MS Windows 1
   CIOS 130A Word Processing I: MS Word 1
   CIOS 135A Spreadsheets I: MS Excel 1
   CIOS 146 Internet Concepts and Applications 1

2. Complete 3 credits from the following:

   CIOS 116 Business Calculations (3)
   MATH 102 Business Math (3)

3. Complete the following 3 credits:

   CIOS 262A Professional Development 3

4. Complete two (2) of the following emphasis areas: 40-60

Office Technology (20)

a. Complete 3 credits from the following:

   CIOS 101* Keyboarding (3)
   CIOS 101B* Keyboarding B (1)
   CIOS 101C* Keyboarding C (1)
   CIOS 102 Keyboarding Skill Building (1-3)
   CIOS 201A Document Processing (3)

* Credit will not be counted for BOTH CIOS 101 (3) and CIOS 101A (1), 101B (1), and 101C (1).

b. Complete the following 15 credits:

   CIOS 125A Electronic Communications: MS Outlook 1
   CIOS 160 Business English 3
   CIOS 161A Proofreading 1
   CIOS 164 Filing 1
   CIOS 165 Office Procedures 3
   CIOS 230A Word Processing II: MS Word 2
   CIOS 235A Spreadsheets II: MS Excel 2
   CIOS 259 Preparing Electronic Documents: Adobe Acrobat 1
   CNT 165 Customer Service Fundamentals 1

   C. Complete 2 credits from the following:

   CIOS 282 Office Internship (1-2)
   CIOS Advisor-approved Electives (1-2)

Bookkeeping (20)

a. Complete 3 credits from the following:

   ACCT 101 Principles of Financial Accounting I (3)
   ACCT 120 Bookkeeping for Business I (3)
   ACCT 201 Principles of Financial Accounting (3)

b. Complete the following 17 credits:

   CIOS 115 Business Calculators 1
   CIOS 118 Payroll Procedures 2
   CIOS 120A Bookkeeping Software Apps I: QuickBooks 1
   CIOS 125A Electronic Communications I: MS Outlook 1
   CIOS 140A Databases I: MS Access 1
   CIOS 160 Business English 3
   CIOS 165 Office Procedures 3
   CIOS 220A Bookkeeping Software Apps II: QuickBooks 2
   CIOS 235A Spreadsheets II: MS Excel 2
   CNT 165 Customer Service Fundamentals 1

Web Foundations (20)

a. Complete the following 20 credits:

   CIOS 108 Graphic Design Fundamentals for Computer Applications 3
   CIOS 117 Logic Concepts for Computer Technology 1
   CIOS 140A Databases I: MS Access 1
   CIOS 152A Digital Imaging Concepts and Applications: Photoshop 3
   CIOS 153B Web Site Design: Dreamweaver 3

CIOS 156A Web Graphics: Fireworks 1
CIOS 246 Internet Concepts and Applications II 2
CIOS Advisor-approved Electives 6
Recommend: Programming Fundamentals
Web Scripting Information Security

Desktop Publishing and Graphics (20)

a. Complete the following 20 credits:

   CIOS 108 Graphic Design Fundamentals for Computer Applications 3
   CIOS 152A Digital Imaging Concepts and Applications: Photoshop 3
   CIOS 154A Desktop Publishing I: PageMaker 1
   CIOS 160 Business English 3
   CIOS 230A Word Processing II: MS Word 2
   CIOS 251A Desktop Publishing Concepts and Applications: InDesign 3
   CIOS 254A Desktop Publishing II: PageMaker 2
   CIOS 259 Preparing Electronic Documents: Adobe Acrobat 1
   CIOS Advisor-approved Electives 2
   Recommend CIOS 260 Business Communications (3)

Medical Office Support (20)

a. Complete 3 credits from the following:

   CIOS 101* Keyboarding (3)
   CIOS 101B* Keyboarding B (1)
   CIOS 101C* Keyboarding C (1)
   CIOS 102 Keyboarding Skill Building (1-3)
   CIOS 201A Document Processing (3)

* Credit will not be counted for BOTH CIOS 101 (3) and CIOS 101A (1), 101B (1), and 101C (1).

b. Complete the following 7 credits:

   CIOS 164 Filing 1
   CIOS 160 Business English 3
   CIOS 264A Records Management 2
   CIOS 282 Office Internship 1

   C. Complete the following 10 credits:

   MA 101 Medical Terminology 3
   MA 120 Medical Office Procedures I 4
   MA 140 Medical Transcription (3) 3
   or
   CIOS 208 Medical Transcription (3)

Administrative Office Support (20-40)

a. Must complete the Office Technology emphasis or equivalent before completing the following:

   CIOS 108 Graphic Design Fundamentals for Computer Applications 3
   CIOS 117 Logic Concepts for Computer Technology 1
   CIOS 140A Databases I: MS Access 1
   CIOS 152A Digital Imaging Concepts and Applications: Photoshop 3
   CIOS 154A Desktop Publishing I: PageMaker 1
   CIOS 160 Business English 3
   CIOS 230A Word Processing II: MS Word 2
   CIOS 251A Desktop Publishing Concepts and Applications: InDesign 3
   CIOS 254A Desktop Publishing II: PageMaker 2
   CIOS 259 Preparing Electronic Documents: Adobe Acrobat 1
   CIOS Advisor-approved Electives 2
   Recommend CIOS 260 Business Communications (3)

University of Alaska Anchorage 2005-2006 Course Catalog
www.uaa.alaska.edu
Legal Office Support (20-40)

a. Must complete the Office Technology emphasis or equivalent before completing the following. 0-20

b. Complete 6 credits from the following: 6
   - CIOS A120A Bookkeeping Software Applications I: QuickBooks (1)
   - CIOS A140A Databases I: MS Access (1)
   - CIOS A150A Presentations I: MS PowerPoint (1)
   - CIOS A207 Machine Transcription (1)
   - CIOS A240A Databases II: MS Access (2)
   - CIOS A241 Integrated Applications (3)
   - CIOS A151A Presentations II: MS PowerPoint (2)
   - CIOS A260A Business Communications (3)
   - CIOS A270 Project Management Fundamentals (2)

c. Complete 3 credits from the following: 3
   - CIOS A267 Law Office Procedures: Client Documents (3)
   - CIOS A265 Office Management (3)

d. Complete 3 credits from the following: 3
   - CIOS A266 Law Office Procedures: Litigation Documents (3)
   - BA A241 Business Law I (3)
   - PARL A101 Introduction to Law (3)

e. Complete 3 credits from the following: 3
   - CIOS A201A Document Processing (3)
   - CIOS A209A Legal Transcription (3)

f. Complete the following 5 credits:
   - CIOS A269 Alaska Rules of Civil Procedure (3)
   - CIOS A282 Office Internship (2)
   - Recommend: Law Office Experience

5. A total of 61-86 credits is required for the degree.

FACULTY

Kim Griffis, Assistant Professor, AFKAG@uaa.alaska.edu

COMPUTER SYSTEMS TECHNOLOGY

The Computer Systems Technology program is offered through the Matanuska-Susitna College and Kodiak College.

An Associate of Applied Science in Computer Systems Technology provides skills and education for qualified workers in the field of Network and Systems Administration. The degree is designed to teach students both the business and IT-related concepts needed to enter the workforce as a Systems Administrator and Technician. Four full-time semesters are required to complete the degree program. An AAS in CST can be earned by completing a series of specific technical, business, and general education courses.

Graduates with an AAS in Computer Systems Technology can be employed as systems administrators and in a wide variety of other positions in the Information Technology field. Graduates of this program will have a firm understanding of a wide variety of technical concepts, from the latest version of the Windows Operating System to routing and switching technology using Cisco equipment. Graduates will also have a wide body of knowledge in vendor neutral and theoretical concepts and practices.

Both the Matanuska-Susitna campus and the Kodiak campus offer the degree program.
CONSTRUCTION MANAGEMENT

http://www.uaa.alaska.edu/ctc/programs/applied
University Center (UC), Room 130, (907) 786-6423

The Construction Management (CM) program seeks to meet the growing needs of the construction industry by training entry-level construction managers and by providing continuing education for construction employees. Construction managers plan, direct, and are responsible for managerial oversight of construction projects. They are responsible for coordinating and managing people, materials, and equipment; budgets, schedules, and contracts; and safety of employees and the general public. Construction managers determine construction means and methods and the most cost effective plans and schedules. They track construction costs and administer contract changes to the project budget. Construction managers monitor work progress to ensure compliance with architectural and engineering drawings and specifications. Construction managers work in all phases of the construction business - public and private owners; from small multifamily projects to the largest of skyscrapers and industrial projects; rural roads to major highways. Construction managers work closely with architects, engineers, owners, and the various contractors on a construction job. The construction manager’s duties are varied, challenging, and rewarding.

The Construction Management program at UAA was developed with input from local contractors and professional industry organizations and provides students with a broad knowledge of building systems and construction techniques. CM graduates understand basic principles of business and have knowledge of the technical aspects of the construction industry. Graduates are able to function both in the construction office and on the job site.

The CM Associate of Applied Science (AAS) degree requires 4 to 5 semesters to complete.

ADVISING

All students are encouraged to meet with their academic advisor each semester for the purpose of reviewing their academic progress and planning future courses. It is particularly important for students to meet with their advisor whenever academic difficulties arise.

Students are encouraged to consult the faculty in the Construction Management Department for assistance in designing their course of study to ensure all prerequisites have been met and that university and major degree requirements are understood and followed.

PREPARATION

Students seeking the Associate of Applied Science degree in Construction Management should prepare for entrance into the program by completing the following high school courses:

<table>
<thead>
<tr>
<th>Mathematics</th>
<th>Algebra II (Skill level as demonstrated by ACT, SAT, or UAA approved placement test to qualify for enrollment in MATH A107)</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>Composition (Skill level as demonstrated by ACT, SAT, or UAA approved placement test to qualify for enrollment in ENGL A111)</td>
</tr>
</tbody>
</table>

The University offers courses to help students without this preparation to meet the skill level required in the Construction Management program. Insufficient preparation will increase the number of semesters required to complete the degree.

ASSOCIATE OF APPLIED SCIENCE, CONSTRUCTION MANAGEMENT

ADMISSION REQUIREMENTS

Satisfy the Admission to Certificate and Associate Degree Programs Requirements in Chapter 7, “Academic Standards and Regulations.”

COURSE REQUIREMENTS

Certain courses require prerequisites or faculty permission. Contact (907) 786-6426 for further information.

GRADUATION REQUIREMENTS

In order to receive the AAS in Construction Management, students must achieve a grade of “C” or better in all courses required for the certificate.

GENERAL UNIVERSITY REQUIREMENTS

1. Complete the General University Requirements for Associate Degrees located at the beginning of this chapter.
2. Complete the Associate of Applied Science General Degree Requirements (15 credits) located at the beginning of this chapter.

MAJOR REQUIREMENTS

1. Complete the following required courses:
   - ACCT A201 Principles of Financial Accounting 3
   - ACCT A202 Principles of Managerial Accounting 3
   - CM A101 Fundamentals of CADD 4
   - CM A102 Methods of Building Construction 3
   - CM A123 Codes and Standards 3
   - CM A142 Mechanical and Electrical Technology 4
   - CM A163 Building Construction Cost Estimating 3
   - CM A201 Construction Project Management 3
   - CM A202 Project Planning and Scheduling 3
   - CM A205 Construction Safety 3
   - CM A213 Civil Technology 4
   - CM A231 Structural Technology 4
   - CM A263 Civil Construction Cost Estimating 3
   - CM A295 CM Internship 3
   - MATH A107 College Algebra 4
   - MATH A108 Trigonometry 3
   - PHYS A123 Basic Physics I w/ Lab 4

2. A total of 66 credits is required for the degree.

FACULTY

Jeffrey Callahan, Assistant Professor, AFJCC1@uaa.alaska.edu

CULINARY ARTS

Lucy Cuddy Hall (CUDY), Room 126, (907) 786-4728

The Culinary Arts and Hospitality Division offers two degrees: an Associate of Applied Science (AAS) degree in Culinary Arts, and a Bachelor of Arts degree in Hospitality and Restaurant Management. Additionally, this division offers a non-transcripted departmental certificate of completion for Dietary Manager.

Persons employed in the foodservice industry who wish to update skills and knowledge may take culinary courses randomly. Students are strongly encouraged to contact a faculty advisor about prerequisites and other lab or course requirements.
The Culinary Arts and Hospitality and Restaurant Management Programs provide students the opportunity to acquire the culinary skills, management skills, and hospitality finesse needed to develop a career in the expanding hospitality and foodservice industry. An array of career possibilities is available to graduates in the areas of culinary production and professional management in restaurants, clubs, bakeries, hotels, hospitals, camps, catering facilities, institutions, and other related operations.

The Associate of Applied Science degree generally takes two years of full-time study to complete. With additional culinary electives, students may focus their studies in culinary/bakery, management, or hospitality.

In the third or fourth semester, the capstone experience for the Associate of Applied science degree is a 225 hour internship designed to provide direct hands-on advanced culinary experience. Arranged by the department, culinary internships are unpaid work experiences at an approved foodservice site.

The Bachelor’s degree generally takes four to five years of study to complete. Through an agreement with the University of Nevada Las Vegas (UNLV) and Northern Arizona University (NAU), students seeking the Bachelor degree are required to complete two semesters of hospitality/hotel/restaurant management studies at either UNLV (minimum 27 upper division credits) or NAU (minimum 24 upper division credits). Please note that students may have to pay non-resident tuition for out of state study.

The capstone experience for the Bachelor’s degree is an 800 hour Alaska internship, offered through UAA and designed to provide direct hands-on hotel and restaurant operations management experience during the fourth or fifth year. Arranged by the department, internships are paid work experiences at an approved hotel/restaurant site.

To help students move efficiently through the program, the department requires specific admissions and advising procedures outlined below. An approved placement test is required for admission and, while not used for placement, is used to advise students of potential difficulties in selected courses.

With application to the program, students open a personal portfolio used to monitor and track student progress; house transcripts, resumes, letters of reference, certificates of completion, scholarship information, evidence of computer competency, internship and job placement; and any other related career planning or placement materials. Students may use their portfolios to apply for scholarships, jobs, or for other personal or professional development.

Nontranscripted Departmental Certificate of Completion, Dietary Manager

A Dietary Manager is a skilled and experienced generalist capable of assuming responsibility for all aspects of foodservice operations in consultation with a Registered Dietitian. Dietary Managers are employed by hospitals, nursing homes, schools, hotels, correctional facilities, pipeline camps, child care centers, senior citizen meal programs, and residential or retirement centers. The Joint Commission on the Accreditation of Health Care Organizations requires all hospital and nursing home foodservice supervisors to be Certified Dietary Managers.

The Dietary Manager component of the Culinary Arts program at UAA is a twenty credit group of courses designed to provide quality education and training to individuals currently employed in the foodservice industry or for college students who have completed Culinary Arts courses. One hundred and ninety hours of on-the-job work experience in health care related institu-
ASSOCIATE OF APPLIED SCIENCE, CULINARY ARTS

ADMISSION REQUIREMENTS
Satisfy the Admission to Certificate and Associate Degree Programs Requirements in Chapter 7, “Academic Standards and Regulations.”

DEPARTMENT APPLICATION REQUIREMENTS
1. Contact the Culinary Arts department by calling (907) 786-4728, for an appointment with a faculty advisor to plan a personal program of study.
2. Request an admission and advising packet. Complete and return the application form to the department. This form opens an individual student portfolio, which is used to advise and counsel students throughout their program of study, and to contain important career planning and placement materials.
3. Contact Testing and Assessment Services (786-4500) to schedule and take a UAA approved placement test of basic math and language arts skills. Place a copy of the results in the department portfolio. SAT, ACT and other postsecondary transcripts may also be submitted to the department. These records will be used for advising only.
4. Full-time and part-time students must successfully complete the 12 credit core curriculum as a prerequisite to enrolling in culinary and bakery skill development laboratory courses. The core consists of the following courses (note each course must be completed with a grade of “C” or higher):
   - CA A102 Nutrition 3
   - CA A104 Sanitation 2
   - CA A105 Principles of Food Science 3
   - CA A107 Culinary Cost Control 2
   - CA A110 Quantity Food Purchasing 2

Computer Competency Requirement
The AAS in Culinary Arts requires demonstrated computer competency evidenced by any of the following:
1. A 3-credit or equivalent course using one or more of the following applications: wordprocessing, spreadsheets, databases, and communications, or an introductory course in data processing or microcomputers.
2. Participate in a work-related experience whereby faculty or employer can verify computer competency.
3. Undertake a self-initiated, independent effort to develop computer competency as approved by faculty advisor.

GENERAL UNIVERSITY REQUIREMENTS
1. Complete the General University Requirements for Associate Degrees located at the beginning of this chapter.
2. Complete the Associate of Applied Science General Degree Requirements (15 credits) located at the beginning of this chapter.

MAJOR REQUIREMENTS
1. Complete the following required courses:
   - CA A102 Nutrition 3
   - CA A103 Culinary Skill Development 4
   - CA A104 Sanitation 2
   - CA A105 Principles of Food Science 3
   - CA A107 Culinary Cost Control 2
   - CA A110 Quantity Food Purchasing 2
   - CA A111 Bakery Skill Development 4
   - CA A201 A la Carte Kitchen 4
   - CA A202 Advanced Bakery 4
   - CA A224 Hospitality Service 3
   - CA A230 Foodservice Management 3
   - CA A295C Foodservice Internship 3
   - CA A220 Foodservice Operations (3)
   - CA A223 Advanced Foods: Buffet and Garde Manger (3)
   - CA A225 Menu Making/Facility Layout and Design (3)
   - CA A490 Current Topics in Foodservice and Nutrition (1-6)
   - CA A110 Quantity Food Purchasing 2

   Only 3 credits of CA A490 may be applied to the AAS Culinary Arts degree.
   3. A total of 60 credits is required for the degree.

BACHELOR OF ARTS, HOSPITALITY AND RESTAURANT MANAGEMENT

ADMISSION REQUIREMENTS
Complete the Admission to Baccalaureate Programs Requirements in Chapter 7, “Academic Standards and Regulations.”

DEPARTMENT ADMISSION REQUIREMENTS
1. Contact the Culinary Arts and Hospitality Division by calling 786-4728, for an appointment with a faculty advisor to plan a personal program of study.
2. Request an admission and advising packet. Complete and return the application form to the department. This form opens an individual student portfolio which is used to advise students throughout their program of study and to contain important career planning and placement materials.
3. Contact Testing and Assessment Services (786-4500) to schedule and take a UAA approved placement test of basic math and language arts skills. Place a copy of the results in the department portfolio. SAT, ACT and other postsecondary transcripts may also be submitted to the department. These records will be used for advising only.

Computer Literacy Requirement
The department requires that Hospitality and Restaurant Management students attain a basic level of computer competency either before they enter the program or early in their studies. Basic competency is demonstrated by the ability to use wordprocessing, spreadsheets, databases and communication programs. Consistent with industry performance standards, each of the core theory courses includes at least one activity that requires using a computer program. Students may develop or enhance computer competency by any of the following means:
1. Enroll in a 3-credit or equivalent course using one or more of the following applications: wordprocessing, spreadsheets, databases, and communications, or an introductory course in data processing or microcomputers.
2. Participate in a work-related experience whereby faculty or employer can verify computer competency.
3. Undertake a self-initiated, independent effort to develop computer competency as approved by faculty advisor.

GRADUATION REQUIREMENTS
Students must complete the following graduation requirements:

A. GENERAL UNIVERSITY REQUIREMENTS
Complete the General University Requirements for All Baccalaureate Degrees at the beginning of this chapter.

B. GENERAL EDUCATION REQUIREMENTS
Complete the General Education Requirements (GER) for Baccalaureate Degree located at the beginning of this chapter. Students are encouraged to coordinate their course selection with their program advisor. Some courses that may fulfill general education requirements and baccalaureate requirements are prerequisites to required business core courses. To avoid taking additional courses later, it is highly recommended students complete: ECON A201 and ECON A202, ENVI A202, FREN A101 and FREN A102 or SPAN A101 and SPAN A102, and MATH A107, SOC A101 and PSY A111.

C. MAJOR REQUIREMENTS
1. Culinary Core. Complete all of the following courses:
   - CA A102 Nutrition 3
   - CA A103 Culinary Skill Development 4
   - CA A104 Sanitation 2
   - CA A105 Principles of Food Science 3
   - CA A107 Culinary Cost Control 2
   - CA A110 Quantity Food Purchasing 2

   Only 3 credits of CA A490 may be applied to the AAS Culinary Arts degree.
3. Hospitality and Restaurant Management Core. Complete a minimum of 24 upper division credits at NAU or a minimum of 27 upper division credits at UNLV. Note: Students MUST complete the General Education Requirements, the Baccalaureate General Education Requirements, the Culinary Core and the Business Core before they complete the Hospitality and Restaurant Management Core. Also, to ensure admission, students MUST apply to transfer to NAU or UNLV one semester before they plan to attend. UNLV requires transfer students to have an overall GPA of 2.5. Choose either NAU or UNLV:

Northern Arizona University (NAU)

a. Complete the following:
   - HA 335 Hospitality Law 3
   - HA 345 Human Resource Management 3
   - HA 355 Food and Beverage Cost Control 3
   - HA 400 Hospitality Sales Management 3
   - HA 490 Senior Seminar (last semester at NAU) 3

b. Complete three courses from the following:
   - HA 340 Beverage and Bar Operations (3)
   - HA 390 International Hospitality Operations (3)
   - HA 401 Resort Management (spring semesters) (3)
   - HA 411 Club Management (spring semesters) (3)
   - HA 435 Hospitality Litigation (fall semesters) (3)
   - HA 477 Casino Management (fall semesters) (3)

University of Nevada Las Vegas (UNLV)

a. Complete the following:
   - HMD 114 Lodging Operations 3
   - HMD 312 Exec. Planning/Housekeeping Operations 3
   - HMD 395 Facilities Management 3
   - HMD 401 Hotel Law 3
   - HMD 410 Hospitality Security/Preservation of Assets 3
   - TCA 311 Destination Management 3
   - TCA 379 Catering Sales and Operations 3
   - TCA 385 Convention Service Management 3
   - HMD or TCA Elective (300 level or higher) 3

4. Internship Requirement
   - CA A405 Hospitality Internship 6

5. A total of 124 credits (if NAU selected), or a total of 127 credits (if UNLV selected) is required for the degree of which 42 must be upper division.

FACULTY

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Jean Bokman, Visiting Assistant Instructor, AFJLB@uaa.alaska.edu
Anne Bridges, Term Asst. Professor, AFAB@uaa.alaska.edu
Timothy Doeber, Director, AFITD@uaa.alaska.edu
Vern Wolfram, Term Assistant Professor, AFVW@uaa.alaska.edu

UNDERGRADUATE PROGRAMS, COMMUNITY AND TECHNICAL COLLEGE

DENTAL ASSISTING

http://alliedhealth.uaa.alaska.edu/da

Allied Health Sciences Building (AHS), Room 160, (907) 786-6929

If you like helping people, enjoy working with your hands as well as your mind, and want a job with responsibility, a career in dental assisting may be for you.

The Dental Assisting program prepares students to become skilled members of the dental health care team. Assistants greatly increase the efficiency of the dentist in the delivery of oral health care and are valuable members of the dental care team.

The duties of the dental assistant are among the most comprehensive and varied in the dental office. The dental assistant performs a wide range of tasks requiring both interpersonal and technical skills. Some specific tasks dental assistants may perform include: assisting the dentist provide oral health care during a variety of procedures; exposing and processing radiographs (x-rays); recording the patient's medical history and vital signs; preparing and sterilizing the proper instruments and equipment for the dentist's use; providing the patient with post-operative instructions following surgery or some other type of dental treatment; showing patients how to brush and floss; making impressions of patients' teeth for study casts; performing office management tasks, such as scheduling appointments, answering the telephone, billing, and inventory control; and performing basic procedures in the dental office laboratory, such as trimming models, polishing appliances, and fabricating temporaries.

Since most dentists employ two or three dental assistants, employment opportunities in this field are widespread. Many types of practice settings are available to dental assistants. For example, an assistant may choose to work in a private practice or a group practice. In addition, an assistant can work in a general dentistry or specialty practice, such as oral and maxillofacial surgery, orthodontics, endodontics, periodontics, prosthodontics, or pediatric dentistry. Job opportunities also exist in public health facilities, federal government facilities, hospitals, dental school clinics, insurance companies, and vocational schools or community colleges and universities teaching others to become dental assistants.

There are many advantages to a career in dental assisting. Dental assisting is a real challenge, demanding versatility and a willingness to assume responsibility for a variety of different tasks. If you want outstanding working conditions where you will be in demand, dental assisting may be a career for you.

The Dental Assisting program is an 8-month program of classroom instruction and clinical experience. A certificate of completion is awarded after fulfilling requirements of this program. In addition, an associate of applied science degree is available for graduates who wish to complete additional courses required for a degree. A faculty advisor in the Dental Assisting program should be consulted prior to entry in the program.

The Dental Assisting program is accredited by the Commission on Dental Accreditation of the American Dental Association, a specialized accrediting body recognized by the Council on Postsecondary Accreditation and by the United States Department of Education. As a result of this, graduates are eligible to take the Dental Assisting National Board examination in General Chairside Assisting and upon successful completion will become Certified Dental Assistants.
ADMISSION TO THE PROGRAM
Special admission requirements and screening procedures are required. It is strongly recommended that interested individuals contact the advisor in the Department of Dental Assisting to review procedures and requirements for admission.

PREREQUISITES
Graduation from high school or equivalent (GED).

APPLICATION PROCEDURE
1. Complete the following required courses:
   - CERTIFICATE REQUIREMENTS
   - ADMISSION REQUIREMENTS
   - CERTIFICATE, DENTAL ASSISTING

   ADDITIONAL COURSES
   - 1. Complete the General University Requirements for Associate Degrees located at the beginning of this chapter.
   - 2. Complete the Associate of Applied Science General Degree Requirements (15 credits) located at the beginning of this chapter.

   MAJOR REQUIREMENTS
   1. Complete the following required courses:
      - DA A110 Dental Radiography 4
      - BIOL A102 Introductory Biology (3) 4
      - BIOL A103 Introductory Biology Laboratory (1) or
      - BIOL A115 Fundamentals of Biology I (4)
      - DA A121 Chairside Procedures I 6
      - DA A122 Chairside Procedures II 8
      - DA A123 Biomedical Sciences for Dental Assistants 4
      - DA A124 Dental Materials and Application I 2
      - DA A125 Dental Materials and Application II 2
      - DA A126 Dental Sciences for Dental Assistants 1
      - DA A127 Dental Practice Management and Professionalism 3
      - DA A128 Dental Communication Skills 2
      - DA A195A Dental Assisting Practicum I 1
      - DA A195B Dental Assisting Practicum II 3
      - DN A203 Normal Nutrition (3) or
      - CA A102 Nutrition (3)
      - PSY A100 Understanding People (3) 3
      - PSY A150 Life Span Development (3) or
      - PSY/HUMS A153 Human Relations (3)
      - Electives to total 60 credits. 5
      - A total of 60 credits is required for the degree.

   FACULTY
   - Cindy Armstrong, Term Assistant Professor, AFCLA@uaa.alaska.edu
   - Nancy Bish, Associate Professor, AFNKB@uaa.alaska.edu
   - Stephanie Olson, Assistant Professor, AFSMO1@uaa.alaska.edu

   DENTAL HYGIENE
   http://www.uaa.alaska.edu/dh
   Allied Health Sciences Building (AHS), Room 160, (907) 786-6929

   The registered dental hygienist is a licensed oral health educator and clinical operator who, as part of the dental team, uses preventive, educational, and therapeutic methods which aid individuals and groups to attain and maintain optimum oral health. Dental hygienists can work as clinicians, educators, researchers, administrators, managers, preventive program developers, consumer advocates, sales and marketing managers, editors, and consultants. Clinical dental hygienists may work in a variety of health care settings such as private dental offices, schools, public health clinics, hospitals, managed care organizations, correctional institutions, or nursing homes.
The Dental Hygiene program is accredited by the Commission on Dental Accreditation of the American Dental Association, a specialized accrediting body recognized by the Council on Postsecondary Accreditation and by the United States Department of Education. The Associate of Applied Science degree is a three-year endeavor comprising one year of science and general education courses and two years of course work in dental hygiene. The program prepares graduates clinically and academically to take the National and Western Regional Examining Boards for licensure.

Clinical dental hygiene requires the ability to sit for long periods of time, good to excellent eye-hand coordination, and excellent fine hand motor skills. Dental hygienists are exposed to bacteria and viruses. Use of protective glasses, face masks and surgical type gloves is required. A professional appearance must be maintained during preclinical and clinical sessions.

Due to the nature of the work, students are not permitted to work in the classroom, laboratory or clinic when under the influence of intoxicants, drugs or medication affecting psychomotor responses. Guidelines for Infection Control in Dental-Health Care Settings from the Centers for Disease Control and Prevention will be followed for students with, or exposure to, infectious diseases. As a condition of participation in the Dental Hygiene Program students must abide by the University’s “Student Code of Conduct,” the Dental Hygiene Program’s “Policies and Procedures,” and the American Dental Hygienists’ Association “Code of Ethics for Dental Hygienists.”

Application for obtaining an Alaska dental hygiene license requires information concerning illegal activity, crimes, hospitalization history regarding emotional or mental illness, drug addiction, alcoholism and contagious diseases. If these are issues for the applicant it is highly recommended the applicant contact the Alaska Department of Occupational Licensing or a similar government agency in any state in which the applicant wants to practice. The UAA Dental Program application requires information concerning disciplinary actions taken at any university or college.

Transfer of credits may be possible to graduates of an ADA accredited dental assisting program. Contact the Dental Hygiene program advisor for details.

Some expenses beyond tuition generally include activity fees, instruments, uniforms, lab fees, student organization membership, graduation pin, immunizations, cost of Basic Life Support class, licensure fees, student health insurance, and malpractice insurance for the Western Regional Examining Boards and professional liability insurance.

Once enrolled as a dental hygiene student, the student can anticipate a four-semester, 40-hour-per-week endeavor. Some evening classes and clinics are scheduled.

Preclinical and clinical requirements. Once admitted to the Dental Hygiene program students are required to provide the following by the first day of class.

1. A signed application form indicating the understanding and acceptance of the Dental Hygiene Programs requirements regarding health screening, vaccinations, and immunizations.
3. Professional liability insurance must be maintained throughout the duration of the student’s enrollment in Dental Hygiene courses. Specific information regarding acceptable professional liability insurance policies may be obtained directly from the Program.

Students enrolled in the Dental Hygiene Program must provide their own transportation to all off campus assignments. The Program assumes no responsibility for illnesses and injuries experienced by the student while enrolled in the Dental Hygiene Program. Students are responsible for all costs incurred due to illness or injury experienced by the student while enrolled in the Dental Hygiene Program. It is required that students maintain personal medical insurance while enrolled in the Program. In order to satisfy clinical requirements students are responsible for providing both adult and child patients.

ASSOCIATE OF APPLIED SCIENCE, DENTAL HYGIENE

ADMISSION REQUIREMENTS

Special admission requirements and application procedures are required. Selection criteria change periodically. Applicants must contact the department for the selection criteria for the year they wish to apply. Completion of the admission requirements does not guarantee selection into the Dental Hygiene program. Applicants are encouraged to submit application to the University by January 1st to ensure complete processing of the application and transcripts by May 20th.

1. Applicants must meet with the UAA Dental Hygiene Program advisor regarding application and program admission requirements prior to application deadline.
2. Graduation from high school or equivalent.
3. Documentation from official transcripts showing successful completion of the following science courses with a cumulative GPA of at least 2.5: CHEM A103 or CHEM A105, CHEM A104 BIOL A111 with a lab BIOL A112 with a lab BIOL A240 or BIOL A241.
4. Course must be completed by the application deadline.
5. Documentation from official transcripts showing successful completion of the following general requirements courses with a cumulative GPA of at least a 2.5: PSY A153 or PSY A111 or PSY 150 SOC A101 or SOC 201 or SOC 222, or SOC 307 or SOC 309 ENGL A111 COMM A111 or COMM A235 or COMM A237 or COMM A241
6. Courses must be completed by the application deadline.
7. International students must contact Enrollment Services regarding equivalency evaluation of transcripts.

APPLICATION PROCEDURE:

To be considered for admission, the application process must be completed by May 20 for acceptance into the program beginning in the fall of the same year:

1. Complete the Dental Hygiene program application and submit to the address below.
2. Provide proof of admittance into the University of Alaska Anchorage as a premajor dental hygiene student.
3. Request official transcripts (if required) and transcript credit evaluation be sent to the Dental Hygiene program to provide proof of completion of the courses listed under Admission Requirements 3 and 4.
4. Three letters of recommendation sent to the Dental Hygiene Program. Confidential letters from employers or supervisors are recommended.

Information and applications can be obtained by contacting:
UAA Dental Hygiene Program
Allied Health Sciences Building, Room 160
3211 Providence Drive
Anchorage, AK 99508-8371
Please call (907) 786-6929

ACADEMIC PROGRESS

Students must earn at least 75 percent or higher in each dental hygiene course.
**Graduation Requirements**
Students must complete the following graduation requirements:

**General University Requirements**
1. Complete the General University Requirements for Associate Degrees located at the beginning of this chapter.
2. Complete the Associate of Applied Science requirements (15 credits) located at the beginning of this chapter (ENGL A212 or ENGL A213 are recommended).

**Major Requirements**
1. Complete the following required courses:

   **Fall Semester 1st year**
   - DA A110/L101 Dental Radiography 4
   - DH A111 Periodontics I 2
   - DH A112 Techniques I for Dental Hygienists 7
   - DH A114 Anatomy of the Orofacial Structures 2
   - *DN A203 Normal Nutrition(3) 3
   - or
   - *CA A102 Nutrition(3) 3

   *Due to a heavy credit load, it is recommended that the nutrition course be taken prior to formal admission into the Dental Hygiene program.

   **Spring Semester 1st year**
   - DH A113 Issues in Dental Hygiene 1
   - DH A121 Periodontics II 2
   - DH A122 Techniques II for Dental Hygienists 4
   - DH A165 Pharmacology for Dental Hygienists 2
   - DH A192 Clinical Seminar I 1
   - DH A195A Clinical Practicum I 4

   **Fall Semester 2nd year**
   - DA A211 Current Periodontal Therapies 2
   - DH A212 Techniques III for Dental Hygienists 3
   - DH A214 Pathology of the Oral Tissues 2
   - DH A292A Clinical Seminar II 1
   - DH A295A Clinical Practicum II 5
   - DH A310 Oral Pain Control 3

   **Spring Semester 2nd year**
   - DH A224 Principles of Dental Health 3
   - DH A292B Clinical Seminar III 1
   - DH A295B Clinical Practicum III 6

2. A total of 73 credits is required for the degree.

**FACULTY**
Ellen Kazor, Professor, AFEDK@uaa.alaska.edu
Susan Luethge, Associate Professor, AFSEL@uaa.alaska.edu

**FIRE AND EMERGENCY SERVICES TECHNOLOGY**
http://alliedhealth.uaa.alaska.edu/fire
Allied Health Science Building (AHS) Room 165 (907) 786-6476

The Fire and Emergency Services Technology program provides entry-level knowledge and skills for students planning a career in emergency services as well as knowledge and skill for the career firefighter.

**Program Outcomes**
Graduates of the Fire and Emergency Services Technology program are prepared to:
- Obtain employment and advance in the fire/EMS field.
- Perform as part of a team to effectively mitigate an emergency situation.

- Relate how emergency services have evolved and identify the drivers and essential components of modern emergency services.
- Provide guidance and leadership in the arena of fire prevention.

The associate of Applied Science Degree has a technical core which follows the National Fire Academy’s Fire and Emergency Service Higher Education’s model core curriculum for two year degree programs. The technical core consists of courses in Principles of Emergency Services, Building Construction, Fire Prevention, Fire Hydraulics, Protection Systems, and Fire Behavior and Combustion. Each student must complete the technical core as well as Math A105 or higher, a natural science with lab, and remaining UAA AAS general education requirements. The student also has (4) four options from which to choose: Fire Suppression, Fire Administration, Emergency Medical Services, or Wildland Firefighting. It may take more than 2 years to complete the degree.

This program articulates with Western Oregon University (WOU), available through the Western Oregon State College Open Learning Fire Service Program for a baccalaureate degree in Fire Service Administration. For further info about the WOU program contact: http://www.wou.edu/fsa or LaRon Tolley at (503) 838-8697.

**Associate of Applied Science, Fire and Emergency Services Technology**

**Admission Requirements**
Satisfy the Admission to Certificate and Associate Degree Programs Requirement in Chapter 7, “Academic Standards and Regulations.”

Although it is not required, it is highly recommended that students be a member of a paid or volunteer fire department prior to or shortly after being admitted to the program.

**General University Requirements**
1. Complete the General University Requirements for Associate Degrees located at the beginning of this chapter.
2. Complete the Associate of Applied Science General Degree Requirements (15 credits) located at the beginning of this chapter. See Major Requirements for additional General Education Requirements.

**Major Requirements**
1. Complete the following required courses:
   - FIRE A101 Principles of Emergency Services 3
   - FIRE A105 Fire Prevention 3
   - FIRE A121 Fire Behavior and Combustion 3
   - FIRE A202 Fire Protection Hydraulics and Water Supply 3
   - FIRE A206 Building Construction for Fire Protection 3
   - FIRE A214 Fire Protection Systems 3
   - MATH 105 or Higher 3
   - Natural Science w/Lab (Recommend CHEM 103/L) 4
   - Social Science (PS, PSY, or SOC) 3
   - (MATH, NAT SCI, and SOC SCI may also meet General AAS Degree Requirements) 3

2. Complete 12 hours in one of the following options:

   **Fire Suppression**
   - FIRE A107 Strategy and Tactics 3
   - FIRE A117 Rescue I (3) 3
   - or
   - FIRE A151 Wildland Fire Control I (3) 3
   - FIRE A203 Hazardous Materials Chemistry I 3
   - FIRE A123 Fire Investigation I 3
A total of 60 credits are required for the degree.

Complete an additional 11 credits from any FIRE, FSA, or HPER course or from the general education list that will lead towards a baccalaureate degree. (Advisor approval required for general education courses)

3. Complete an additional 11 credits from any FIRE, FSA, or HPER course or from the general education list that will lead towards a baccalaureate degree. (Advisor approval required for general education courses) 11

4. A total of 60 credits are required for the degree.

**FACULTY**

Gail Ownby-Hughes, Assistant Professor/Program Coordinator, AFTGO@uaa.alaska.edu

**HEALTH, PHYSICAL EDUCATION & RECREATION**

Eugene Short Hall (ESH), Room 125, (907) 786-4083

**SPECIAL NOTE REGARDING OUTDOOR/ADVENTURE COURSES:**

The Department of Health, Physical Education & Recreation provides outdoor or adventure education through the use of hands-on techniques. Course offerings are diverse and include topics such as backpacking, rock climbing, sea kayaking, winter camping, emergency medicine, and wilderness leadership. Many of HPER's classes which begin with the “AOEE” prefix are held in Alaska's wilderness, an environment that can pose a risk to even the most experienced outdoor leader.

Students may be required to perform activities in extremely inclement weather i.e. rain, sleet, snow, wind or sub-zero temperatures. Additionally, there is an assumption that a minimum level of physical fitness is needed to succeed in and enjoy many of the activities. Consequently, before enrolling in these courses, students should review the following information.

**PHYSICAL FITNESS LEVEL:** Many 100-level courses have been designed for the student with an average level of fitness and health; e.g., a student would be expected to comfortably travel five miles over easy terrain. If a higher than average fitness level is required, a special note will identify the necessary level of fitness.

**Good Fitness** is defined as above average fitness relative to a typical, healthy adult. Courses that require good fitness will involve a moderate degree of physical activity; may involve travel over challenging terrain; may involve carrying a pack weighing 50 pounds or more; or may involve multiple hours of exercise. A student who is physically or mentally unprepared to withstand a moderate amount of exercise should not enroll in the course.

**Excellent Fitness** is defined as possessing health of outstanding quality or being in remarkably good physical condition. Excellent fitness is required for expedition courses.

**VENUE AND TERRAIN DIFFICULTY:** Students will hike and travel in a variety of environments in AOEE courses. The following breakdown provides an overview of terrain difficulty.

**Easy terrain** can be negotiated by novices. Traveling is usually done on well-maintained trail systems; can include hiking, skiing or snowshoeing; elevation gains/losses generally under 500 feet per mile; and stream crossings of calf deep or less. Off-trail touring includes traveling on firm ground over gentle terrain.

**Moderate terrain** requires good physical fitness. Traveling is usually done on rugged trails or off trail. The hiking often includes inclines/declines of 500 to 1500 feet per mile. Off-trail travel can include bushwhacking; uneven, wet or marshy ground; scrambling up, over or around small terrain features; and river crossings up to knee deep.

**Difficult terrain** requires excellent physical fitness. Traveling is usually done off trail and can include uneven, challenging ground; lack of firm footing; steep tundra, rock or screen; wet, snowy or icy slopes; and thigh to waist deep river crossings. Specialized gear may be required for travel.
Extreme difficult terrain requires excellent physical fitness. Traveling is done off trail and participants must be prepared to endure all of the features listed under “difficult terrain” for long hours and potentially multiple days. Specialized gear is usually required for travel.

**ACKNOWLEDGEMENT OF RISK, RELEASE OF LIABILITY AND MEDICAL QUESTIONNAIRE FORM:** During the first class session, students will receive information about the course outings. A verbal description will provide additional information about the inherent risks associated with specific areas and activities. Students will be asked to complete acknowledgement of risk forms, sign release of liability statements and provide personal medical information and emergency contact names and numbers.

**STUDENT HEALTH INSURANCE:** Students enrolling in AOEE activity courses are provided with basic health insurance coverage during field sessions only. This policy is intended to supplement personal policies and does not include the cost of emergency evacuation.

**MINORS:** Sixteen- and seventeen-year-old students must receive chair approval before they are allowed to enroll in AOEE or PE courses. Students under sixteen years of age cannot enroll in AOEE or PE courses.

**NONTRANSCRIPTED DEPARTMENTAL CERTIFICATE, COACHING LEADERSHIP**

The Coaching Leadership certificate provides students the opportunity to acquire the knowledge and skills necessary to secure a position as a youth or interscholastic coach. The nontranscripted Coaching Leadership departmental certificate of completion was developed to support national requirements and significant trends in coaches’ education.

The comprehensive program provides a solid foundation of coaching applications and principles, sports first aid, citizenship and sport, drugs in sport, and techniques necessary to coach a specific team and individual sport. All classes combine current sport education, research, and training techniques with practical, hands-on coaching experience. This program follows the guidelines established by the partnership between the National Federation of State High School Associations (NFHS) and the American Sport Education Program (ASSEP). Materials used in this program have been endorsed by the National Federation Interscholastic Coaches Education Program (NFICEP). Students who successfully complete this program will receive additional nationally recognized certifications from NFICEP.

There is no formal application required to enter this program.

**CERTIFICATE REQUIREMENTS**

1. Complete the following required courses:
   - PE A160 Introduction to Coaching 2
   - PE A161 Sport First Aid 1
   - PE A260 Citizenship and Ethics in Sports 1
   - PE A261 Drugs and Sport 1

2. Complete one of the following courses:
   - PE A263 Coaching Basketball (2)
   - PE A264 Coaching Soccer (2)
   - PE A265 Coaching Volleyball (2)
   - PE A266 Coaching Hockey (2)
   - PE A267 Coaching Football (2)
   - PE A268 Coaching Baseball/Softball (2)
   - PE A269 Coaching Track and Field/Running (2)
   - PE A270 Coaching Skiing (2)
   - PE A271 Coaching Swimming and Diving (2)
   - PE A272 Coaching Gymnastics (2)
   - PE A273 Coaching Wrestling (2)
   - PE A274 Coaching Figure Skating (2)

3. Pass NFICEP exams and achieve a grade of “B” or better in each required course.
4. Possess current CPR certification.

**NONTRANSCRIPTED DEPARTMENTAL CERTIFICATE, FITNESS LEADERSHIP**

The Fitness Leadership nontranscripted certificate provides the opportunity to acquire the knowledge and skills necessary to develop a career in the ever changing fitness industry. An array of career possibilities are available to individuals who successfully complete this program in aerobics fitness instruction, personal training, or aquatics fitness instruction.

This comprehensive program provides students with 90 hours of leadership training in exercise theory and practice and 60 hours of training in their chosen fitness specialty or emphasis area: Aerobics Fitness Instructor, Personal Trainer, or Aquatics Fitness Instructor. All classes combine current fitness research and training techniques with practical, hands-on teaching experience. This program follows the guidelines established by the American Council on Exercise (ACE) and the American College of Sports Medicine (ACSM).

The Fitness Leadership certificate is designed to provide quality education and training to individuals interested in working in the fitness industry. Of these ten credits, six include lecture courses and four are laboratory sessions. The labs are enhanced by practicum experiences that reinforce skills, knowledge, and leadership qualities. Students receive training in basic applied kinesiology and exercise physiology, nutrition and healthy weight loss, injury prevention, fitness assessment, legal considerations, special populations, health screening, leadership, and motivation.

There is no formal application required to enter this program.

**CERTIFICATE REQUIREMENTS**

1. Complete the following required courses:
   - PE A140 Introduction to Fitness Leadership 3
   - PE A240 Issues in Fitness Leadership 3

2. Complete the required courses within one of the following three emphasis areas:
   - **Aerobics Fitness Instructor**
     - PE A141 Techniques in Fitness Instruction I 2
     - PE A241 Techniques in Fitness Instruction II 2
   - **Personal Trainer**
     - PE A142 Techniques in Personal Training I 2
     - PE A242 Techniques in Personal Training II 2
   - **Aquatics Fitness Instructor**
     - PE A141 Techniques in Fitness Instruction I 2
     - PE A243 Techniques in Aqua Fitness Instruction 2

3. Possess current CPR and Standard First Aid certifications for professionals.
4. A grade of “B” or better for all courses required for the Fitness Leadership Nontranscripted Departmental Certificate of Completion.

**BACHELOR OF SCIENCE, PHYSICAL EDUCATION**

**ADMISSION REQUIREMENTS**

1. Complete the Baccalaureate Degree Programs Admission Requirements at the beginning of this chapter.
2. Meet with a Health, Physical Education & Recreation advisor regarding application, program admission, and development of a program of study.
3. Submit a departmental application for admission to the Department of Health, Physical Education & Recreation.
4. The degree requires computer competency which may be demonstrated by:
   - successful completion of an approved university computer course,
   - work related experience requiring computer competency as approved by faculty or major advisor,
   - demonstrated computer competency as approved by faculty or major advisor.
ACADEMIC PROGRESS
Maintain a 2.5 GPA or higher for the courses within the emphasis and a B or better in the Internship.

GRADUATION REQUIREMENTS

A. GENERAL UNIVERSITY REQUIREMENTS
Complete the General University Requirements for Baccalaureate Degrees listed at the beginning of this chapter.

B. GENERAL EDUCATION REQUIREMENTS
Complete the General Education Requirements for Baccalaureate Degrees listed at the beginning of this chapter.

C. REQUIRED SUPPORT COURSES
Complete the following support courses some of which may be used to satisfy the General Education Requirements:

BIOL A111 Human Anatomy & Physiology I 4
BIOL A112 Human Anatomy & Physiology II 4
DN A203 Normal Nutrition 3
HS A220 Core Concepts in the Health Sciences 3
PSY A111 General Psychology (3) 3
OR
PSY A150 Life Span Development (3)

D. MAJOR REQUIREMENTS
1. Complete the following core courses:
   PE A100 Introduction to Health, Physical Education & Recreation 3
   PE A281 Leadership for Diverse Populations 2
   PE A282 Leadership in Experiential Initiatives and Activities 2
   PE A283 Leadership in Aquatic Activities 2
   PE A284 Leadership in Fitness Activities 2
   PE A286 Leadership in Individual and Dual Activities 2
   PE A287 Leadership in Outdoor Recreation Activities 2
   PE A288 Leadership in Rhythmic Activities 2
   PE A289 Leadership in Team Activities 2
   PE A333 Kinesiology and Biomechanics 4
   PE A344 Movement Theory and Motor Development 3
   PE A366 Cultural and Psychological Aspects of Health and Physical Activity 3
   PE A377 Physiology of Exercise 4
   PE A443 Standards and Assessment in Health, Physical Education & Recreation 3
   PE A444 Administration and Supervision in Health, Physical Education & Recreation 3

2. Complete one of the following emphasis areas:

   Health & Fitness Leadership (43 credits):
   ACCT A201 Principles of Financial Accounting 3
   BA A151 Introduction to Business 3
   BA A231 Fundamentals of Supervision 3
   BA A260 Marketing Practices 3
   HS/NS A433 Health Ed. Theory & Practice 3
   PE A277 Prevention and Care of Activity Related Injuries 3
   PE A420 Challenges in Health & Fitness Leadership 1
   PE A430 Health Promotion 2
   PE A440 Exercise Testing and Prescription 3
   PE A450 Cardiac Rehabilitation 3
   PE A460 Contemporary Personal Health Issues 3
   PE A495 Internship in Health & Fitness Leadership 6
   PS A101 Introduction to American Government (3) 3
   OR
   PS A102 Introduction to Political Science (3) 3
   PS A347 Public Administration 3
   Approved Elective 1

Adventure Leadership (47 credits):
   AOEE A163 Wilderness First Responder 4
   AOEE A275 Foundations of Adventure and Experiential Leadership 3
   AOEE A325 Natural History Interpretation and Environmental Education 3
   AOEE A355 Survival and SAR for Adventure Leaders 3
   AOEE A375 Adventure Leadership Theory and Practice 3
   AOEE A425 Organizational Safety and Risk Management 3
   AOEE A495 Internship in Adventure Leadership 6
   ACCT A201 Principles of Financial Accounting 3
   BA A151 Introduction to Business 3
   BIOL/GEOL A104 Natural History of Alaska 3

Choose 1 of the following:
   AOEE A153 Four-season Backpacking (3)
   AOEE A154 Alaska Winter Survival (3)

Choose 2 of the following:
   AOEE A131 Flat Water Canoeing (1)
   AOEE A132 River Rafting I (1)
   AOEE A133 Introduction to Sea Kayaking (1)

Choose 2 of the following:
   AOEE A116 Rock Climbing I (1)
   AOEE A117 Ice Climbing I (1)
   AOEE A121 Crevasse Rescue Techniques (1)
   AOEE A126 Indoor Sport Climbing I (1)
   AOEE A216 Rock Climbing II (1)

Choose 3 of the following:
   AOEE A435 Challenge Course Adventure Leadership (2)
   AOEE A445 Land-based Adventure Leadership (2)
   AOEE A455 Water-based Adventure Leadership (2)
   AOEE A465 Climbing-based Adventure Leadership (2)

A total of 120-124 credits is required for the degree of which 42 credits must be upper division.

RECOMMENDED COURSE SEQUENCE
See a Health, Physical Education & Recreation advisor for information on a recommended course sequence.

MINOR, ADVENTURE LEADERSHIP *
Students who wish to minor in adventure leadership must complete the following requirements. A total of 22 credits including 8 upper division credits is required for the minor. Prerequisites for these courses must also be satisfied. Requires a grade of C or better in AOEE A435 or AOEE A445.

1. Complete the following core:
   AOEE A163 Wilderness First Responder 4
   AOEE A275 Foundations of Adventure and Experiential Leadership 3
   AOEE A355 Survival and SAR for Adventure Leaders 3
   AOEE A375 Adventure Leadership Theory and Practice 3

2. Choose 1 of the following:
   AOEE A153 Four-season Backpacking (3)
   AOEE A154 Alaska Winter Survival (3)

3. Choose 2 of the following:
   AOEE A131 Flat Water Canoeing (1)
   AOEE A132 River Rafting I (1)
   AOEE A133 Introduction to Sea Kayaking (1)

4. Choose 2 of the following:
   AOEE A116 Rock Climbing I (1)
   AOEE A117 Ice Climbing I (1)
   AOEE A121 Crevasse Rescue Techniques (1)
   AOEE A126 Indoor Sport Climbing I (1)
   AOEE A216 Rock Climbing II (1)
5. Choose 1 of the following:  
AOEE A435 Challenge Course Adventure Leadership (2)  
AOEE A445 Land-based Adventure Leadership (2)  
* Not available to physical education majors with adventure leadership emphasis.

**MINOR, ATHLETIC TRAINING**

Students who wish to minor in athletic training must complete the following requirements. A total of 20 credits including 14 upper division credits is required for the minor. Prerequisites for these courses must also be satisfied. Requires a grade of C or better in PE A346 and PE A347.

Complete the following requirements:

1. Complete the following core:
   - DN A203 Normal Nutrition 3
   - PE A277 Prevention and Care of Activity Related Injuries 3
   - PE A333 Kinesiology and Biomechanics 4
   - PE A377 Physiology of Exercise 4
   - PE A346 Lower Body Injury Assessment Skills 3
   - PE A347 Upper Body Injury Assessment Skills 3

**MINOR, COACHING**

Students who wish to minor in coaching must complete the following requirements. A total of 22 credits including 10 upper division credits is required for the minor. Prerequisites for these courses must also be satisfied. Requires a grade of C or better in PE A160, PE A161 and sport specific coaching course.

1. Complete the following core:
   - PE A160 Introduction to Coaching 2
   - PE A161 Sports First Aid 1
   - PE A260 Citizenship Through Sports 1
   - PE A261 Drugs and Sport 1
   - PE A277 Prevention and Care of Activity Related Injuries 3
   - PE A281 Leadership in Activities for Diverse Populations 2
   - PE A344 Movement Theory and Motor Development 3
   - PE A366 Cultural and Psychological Aspects of Health & Physical Activity 3
   - PE A377 Physiology of Exercise 4

2. Choose 1 of the following:
   - PE A263 Coaching Basketball (2)
   - PE A264 Coaching Soccer (2)
   - PE A265 Coaching Volleyball (2)
   - PE A266 Coaching Hockey (2)
   - PE A267 Coaching Football (2)
   - PE A268 Coaching Baseball/Softball (2)
   - PE A269 Coaching Track/Field/Running (2)
   - PE A270 Coaching Skiing (2)
   - PE A271 Coaching Swimming/Diving (2)
   - PE A272 Coaching Gymnastics (2)
   - PE A273 Coaching Wrestling (2)
   - PE A274 Coaching Figure Skating (2)

**MINOR, HEALTH & FITNESS LEADERSHIP** *

Students who wish to minor in health & fitness leadership must complete the following requirements. A total of 19 credits including 6 upper division credits is required for the minor. Prerequisites for these courses must also be satisfied. Requires a grade of C or better in the courses within the option.

1. Complete the following core:
   - DN A203 Normal Nutrition 3
   - PE A140 Introduction to Fitness Leadership 3
   - PE A240 Issues in Fitness Leadership 3
   - PE A377 Physiology of Exercise 4
   - PE A430 Health Promotion 2

2. Choose one of the following options:
   - Fitness Instruction Option
     - PE A141 Techniques in Fitness Instruction I (2)
     - PE A241 Techniques in Fitness Instruction II (2)

**MINOR, PHYSICAL EDUCATION** *

Students who wish to minor in physical education must complete the following requirements. A total of 21 credits including 10 upper division credits is required for the minor. Prerequisites for these courses must also be satisfied. Requires a grade of C or better in the leadership courses are required.

1. Complete the following core:
   - PE A100 Introduction to Health, Physical Education & Recreation 3
   - PE A281 Leadership in Activities for Diverse Populations 2
   - PE A333 Kinesiology and Biomechanics 4
   - PE A344 Movement Theory and Motor Development 3
   - PE A433 Standards and Assessment in Health, Physical Education & Recreation 3

2. Choose 3 of the following:
   - PE A282 Leadership in Experiential Initiatives and Activities (2)
   - PE A283 Leadership in Aquatic Activities (2)
   - PE A284 Leadership in Fitness Activities (2)
   - PE A286 Leadership in Individual and Dual Activities (2)
   - PE A287 Leadership in Outdoor Recreation Activities (2)
   - PE A288 Leadership in Rhythmic Activities (2)
   - PE A289 Leadership in Team Activities (2)

* Not available to physical education majors.

**INDUSTRIAL PROCESS INSTRUMENTATION**

34820 College Dr., Soldotna, Alaska, 99669, (907) 262-0300.  
Note: The Industrial Process Instrumentation program is offered only at Kenai Peninsula College (KPC).

Industrial Process Instrumentation is a specialized technical degree. Strong math and science skills are emphasized. Students must work closely with advisors to complete this program in two years. A fifth semester of course work may be necessary.

Students are prepared for employment as instrument technicians. Instrument technicians are responsible for the repair, maintenance, adjustment, and calibration of automatic controls used in refineries, chemical plants, pipelines, production facilities, and other industries where automatic control is used.
ASSOCIATE OF APPLIED SCIENCE, INDUSTRIAL PROCESS INSTRUMENTATION

ADMISSION REQUIREMENTS
1. Placement at the MATH A100 entry-level or above.
2. Placement at the ENGL A107 level or above.
3. Students placing below these math and reading levels on an approved placement test must see a faculty advisor in the Industrial Process Instrumentation program prior to registering for instrumentation courses.

GENERAL UNIVERSITY REQUIREMENTS
Complete the General University Requirements for Associate Degrees located at the beginning of this chapter.

COMMUNICATION AND GENERAL REQUIREMENTS
1. Communication Requirements:
   - ENGL A111 Methods of Written Communication 3
   - ENGL A212 Technical Writing 3
   - COMM A111 Fundamentals of Oral Communication 3
2. General Requirements:
   - MATH A105 Intermediate Algebra 3
   - PHYS A115 Physical Science I for Technicians (4) 8
   - PHYS A116 Physical Science II for Technicians (4) or
   - PHYS A123/L Basic Physics I (4) and
   - CHEM A105/L General Chemistry I (4)

MAJOR REQUIREMENTS
1. Complete the following required courses:
   - ET A101 Basic Electronics; DC Physics (4) 4
   - ET A151 Basic Electricity (4)
   - ET A126 Principles of Logic and Gating 4
   - ET A175 Technical Introduction to Microprocessors 3
   - ET A240 Application of Integrated Circuits 3
   - ET A241 Microcomputer Interfacing 3
   - ET A245 Basic Electronics 4
   - ET A246 Electronic Industrial Instrumentation 3
   - PETR A106 Petroleum Science II 3
   - PETR/PRT A140 Industrial Process Instrumentation I 3
   - PETR/PRT A144 Industrial Process Instrumentation II 3
   - PETR A155 Blueprint Reading (3)
   - PETR A231 Production Plant Operations (3)
   - PETR A240 Industrial Process Instrumentation III 3
   - PETR A244 Industrial Process Instrumentation IV 3
2. A total of 68 credits is required for the degree.

MASSAGE THERAPY

http://alliedhealth.uaa.alaska.edu/mtp
Allied Health Science Building (AHS), Room 169, (907) 786-4930

Admission to the Certificate program is currently suspended. Contact the department for further information.

Built on national educational standards and accredited through American Massage Therapy Association (AMTA) Commission on Massage Therapy Accreditation (COMTA), this 675-hour certificate program presents entry-level and advanced skills in the art and science of therapeutic massage. This comprehensive, clinical based program is designed to prepare students to integrate with other health care practitioners and establish independent business in this growing complementary health care profession. Massage therapists are employed by hospitals, chiropractic offices, physical therapy clinics, rehabilitation centers, athletic teams, health clubs, spas, and hotel resorts.

The principles of human anatomy, physiology, pathology, and human movement are presented and built upon throughout the program. Professional standards and ethics, client assessment, practical application techniques, self-care, and business strategies are also integrated. The UAA Massage Therapy Clinic offers the opportunity for students to practice their communication, assessment, and application skills with the guidance of our instructors.

Successful completion of this program qualifies graduates to sit for the National Certification Examination for Therapeutic Massage and Bodywork (NCBTMB) and meets the Municipality of Anchorage licensure requirements. Students must begin the program in the Fall semester.

CERTIFICATE, MASSAGE THERAPY

ADMISSION REQUIREMENTS
1. Satisfy the Admission to Certificate and Associate Degree Programs Requirements in Chapter 7, "Academic Standards and Regulations."
2. Contact the Massage Therapy Program for additional admission requirements.
3. Once admitted to the Massage Therapy Program, students are required to provide evidence of current First Aid certification and BLS-C or CPR for Professionals certification. These certifications must remain current throughout the program.
4. UAA approved placement test administered by Testing and Assessment Services. Call (907) 786-4500 to make arrangements.

ACADEMIC PROGRESS
1. All courses must be completed with a grade of “C” or better.
2. Some required courses may have to be repeated if not completed within two years prior to graduation.

MAJOR REQUIREMENTS
1. Complete the following required courses:
   - Fall Semester
     - MTP A151 Human Health and Disease I 3-4
     - or
     - BIOL A111 Human Anatomy and Physiology I and
     - BIOL A111L Human Anatomy and Physiology I Lab
     - MTP A154 Professional Communication and Documentation for Massage Therapists 2
     - MTP A156 Standards in Therapeutic Massage 3
     - MTP A157 Applications in Massage Therapy 4
     - MTP A158 Swedish Massage Development 2
     - MTP A167 Introduction to Human Movement 2
   - Spring Semester
     - MTP A152 Human Health and Disease II 3-4
     - or
     - BIOL A112 Human Anatomy and Physiology II and
     - BIOL A112L Human Anatomy and Physiology II Lab
     - MTP A254 Structure, Function, and Movement 3
     - MTP A266 Goal-Oriented Massage 2
     - MTP A267 Assessment and Applications in Massage 4
     - MTP A295 Massage Therapy Clinic 2
   - Summer Semester
     - MTP A155 Massage Therapy Business Management 2-3
     - or
     - BA A166 Small Business Management
     - MTP A173 Basic Jin Shin Do Acupressure 3
   - A total of 35-38 credits is required for the certificate.
MECHANICAL TECHNOLOGY

http://www.kpc.alaska.edu
34820 College Dr., Soldotna, Alaska, 99669, (907) 262-0300.
The Mechanical Technology Program is offered only at Kenai Peninsula College.

The one-year certificate in Mechanical Technology provides the student with experience in the maintenance of most major types of rotating equipment and the operation of common machine tools. This program prepares students for employment as entry-level mechanics or millwrights in all types of industrial plants. This certificate may take more than two semesters to complete due to staggered course offerings.

CERTIFICATE, MECHANICAL TECHNOLOGY

1. Certificate Requirements:
   - MATH A101 Technical Mathematics 3
   - MECH A101 Introduction to Machine Shop 4
   - PETR A155 Blueprint Reading 3
   - PETR A270 Industrial Mechanical Equipment 3
   - WELD A101 Gas and Arc Welding 4

2. Choose a minimum of 14 credits from the following electives:
   - EDD A288 Computer Aided Drafting 4
   - ET A151 Basic Electricity 4
   - MECH A102 Intermediate Machine Shop 4
   - MECH A115 Gasoline Engine Rebuilding 3
   - MECH A201 Advanced Machine Shop 4
   - WELD A108 Wire Welding 4
   - WELD A109 TIG Welding 4

3. A total of 31 credits is required for the certificate.

MEDICAL ASSISTING

http://alliedhealth.uaa.alaska.edu/ma
Allied Health Sciences Building (AHS), Room 161, (907) 786-6928

Medical assistants are multiskilled allied health professionals specifically trained to work in ambulatory settings, such as physicians' offices, clinics, and group practices. They perform both administrative and clinical tasks to help keep busy medical practices running smoothly. Clinical duties include assisting with examinations, recording vital signs, preparing patients for various procedures, sterilizing instruments, maintaining examining rooms, drawing blood, recording electrocardiograms, removing sutures and changing dressings. Administrative responsibilities of the medical assistant include answering telephones and greeting patients, maintaining medical records, performing medical coding, completing health insurance forms, scheduling appointments, and preparing medical and financial reports.

The UAA Medical Assisting program offers an Associate of Applied Science degree in Medical Assisting, as well as a nontranscripted departmental Certificate of Completion. The UAA Medical Assisting nontranscripted departmental Certificate of Completion is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) upon the recommendation of the Curriculum Review Board of the American Association of Medical Assistants Endowment (CRB-AAMAE): CAAHEP, 35 East Wacker Drive, Chicago, IL 60601; 312-553-9355. Students who complete the nontranscripted departmental Certificate of Completion program are eligible to sit for the Certified Medical Assistant (CMA) examination. Please note: Individuals who have been found guilty of a felony, or pleaded guilty to a felony, are not eligible to take the CMA exam; however, a waiver may be granted by the American Association Medical Assistants (AAMA) Certifying Board in cases of mitigating circumstances.

In order to perform medical assisting duties, a student should have good manual dexterity, visual ability to locate patient veins and interpret color changes, and good hearing acuity. Most medical assistants should be able to lift in order to assist patients, be able to bend, reach, and kneel; many medical assistants are required to stand for long periods of time. Please contact the Medical Assisting department for a list of medical assisting technical standards required for students to successfully complete the clinical portion of the medical assisting program.

Other employment opportunities for which the Medical Assisting program provides training include medical transcriptionist, medical receptorist, medical coder, and health insurance specialist. Medical terminology courses are valuable for all health science students and may be taken by anyone entering a health occupation. Formal admission to the Medical Assisting program is not required for all courses.

Medical assisting courses are offered in fall and spring semesters. A 6-week office practice (externship) begins in May. Some courses are offered only once per year. Students should meet with an academic advisor prior to registering for classes in order to determine the best sequencing of courses for their program of study. Part-time students are welcome.

ADMISSION REQUIREMENTS

1. See Certificate and Associate Degree Program Admission Requirements at the beginning of this chapter.
2. Submit University of Alaska Anchorage application for admission and required transcripts.
3. Take UAA approved English and Math placement tests. Call 907-786-4500 for testing information.
4. Call 907-786-6928 to make an appointment with a medical assisting academic advisor prior to registering for classes.

ADDITIONAL INFORMATION REGARDING EXTERNSHIP

1. A recent physical examination is required prior to the beginning of externship. Each student must submit a physical examination that certifies the student is free from infectious diseases and physically able to participate in the externship portion of the program.
2. Current Health Provider CPR (adult/child/infant) certification is required prior to the start of externship, and must be kept current throughout the externship course.
3. Current immunizations, proof of medical insurance, and criminal background checks are required by some medical offices which serve as medical office externship sites. The cost to meet these requirements is the responsibility of the student. Students who are injured while completing externship assignments are responsible for all associated medical costs. Students are strongly encouraged to maintain personal medical insurance.
4. Transportation to off-campus externship sites is the responsibility of the student.

NONTRANSCRIPTED DEPARTMENTAL CERTIFICATE OF COMPLETION

1. Demonstrate the following, or complete preparatory courses as recommended by the medical assisting academic advisor.
   - Placement into MATH A055 or above, or completion of MATH A054 with a minimum grade of C.
   - Placement into ENGL A111 or above, or completion, with a minimum grade of C, of PRPE A107 and PRPE A108, or ENGL A109.
   - Recommended keyboarding skill of 45 wpm or completion of keyboarding course(s).
2. Complete the following required courses with a minimum grade of C in each course:
   - BIOL A100 Human Biology 3
   - CIS A105 Introduction to Personal Computers and Application Software (3) or
   - CIOS A130A Word Processing I: MS Word (1) and
   - CIOS A135A Spreadsheets I: MS Excel (1) and
   - One additional credit of CIOS coursework (1)
   - MA A101 Medical Terminology I 3
   - MA A104 Essentials of Human Disease 3
   - MA A120* Medical Office Procedures 4
   - MA A140 Medical Transcription I 2
   - MA A150 Clinical Procedures I 4
   - MA A155 Clinical Procedures II 4
   - MA A220 Coding for the Medical Office 3
   - MA A230 Billing and Insurance for the Medical Office 3
   - PSY A150 Life Span Development 3

   *Completion of MA A120A and MA A120B satisfies the requirement of MA A120.

3. Complete MA A295 Medical Office Externship. 5
4. A total of 40 credits is required for the nontranscripted departmental Certificate of Completion.

ASSOCIATE OF APPLIED SCIENCE, MEDICAL ASSISTING

ADMISSION REQUIREMENTS

Complete the admission requirements for the nontranscripted departmental Certificate of Completion as listed above.

GENERAL UNIVERSITY REQUIREMENTS

1. Complete the General University Requirements for Associate Degrees located at the beginning of this chapter.
2. Complete the Associate of Applied Science General Degree Requirements (15 credits) located at the beginning of this chapter. (Completion of BIOL 100 and PSY 150 fulfill the requirement of 6 credits of Math, Humanities, Social Sciences or Natural Sciences.)

MAJOR REQUIREMENTS

1. Complete the required courses for the Medical Assisting nontranscripted departmental Certificate of Completion as outlined above with a minimum grade of C in each course. 40
2. Complete 8 to 9 credits in the following courses:
   - ACCT A120 Bookkeeping for Business (3) or
   - ACCT A101 Principles of Accounting (3)
   - CA A102 Nutrition (3) or
   - DN A203 Normal Nutrition (3)
   - MA A110 Principles of Radiography 3
   - MA A141 Medical Transcription II 3
   - MA A320 Advanced Case Studies in Medical Coding 2
   - MEDT A101 Phlebotomy Procedures 3
3. Elective credits. 0-3
4. A minimum of 60 credits is required for this degree.

FACULTY

Pam Ventgen, Term Assistant Professor, AFPKV@uaa.alaska.edu
Robin Wahto, Associate Professor, AFRJW@uaa.alaska.edu

MEDICAL LABORATORY TECHNOLOGY

http://alliedhealth.uaa.alaska.edu/medt
Allied Health Sciences Building (AHS), Room 169, (907) 786-4930

The Medical Laboratory Technology Department has a strong commitment to the career ladder approach to higher education. With Career Ladder programs, the students enrolled in the Bachelor of Science in Medical Technology have an option to gain Phlebotomy certification in one year and Medical Laboratory Technician certification in two years as they pursue a bachelor’s degree. The AAS graduates who wish to obtain a bachelor’s degree in Medical Technology may “career ladder” without loss of credit.

General Admission Requirements for all students entering programs offered by the Medical Laboratory Technology Department include:
1. Complete the Medical Laboratory Technology program application.
2. Review the Essential Requirements for Admission and return the signed form to the department.
3. High School diploma or GED equivalency.
4. Prior to enrollment in either MEDT A101 or MEDT A132, students must provide documentation of the following:
   - Immunity to rubella, rubella and chicken pox confirmed by titer.
   - Immunization series prior to enrolling in the courses.
   - Diphtheria/tetanus vaccination within the past ten years.
   - Freedom from active tuberculosis, documented annually by negative PPD skin test or by health exam by a nurse practitioner, physician or physician’s assistant.
5. Prior to enrolling in a practicum (MEDT A195A, MEDT A195B, MEDT A295 or MEDT A495) students must:
   - Provide proof of personal medical insurance coverage.
   - Provide documentation of a non-FBI criminal background check within six months prior to start of practicum.

Additional admission requirements are listed under program descriptions.

The Medical Laboratory Technology Department assumes no responsibility for illness or injuries experienced by students in conjunction with student labs. It is strongly recommended that students maintain personal medical insurance while enrolled in any of the programs offered by the Medical Laboratory Technology Department. Students enrolled in practicum (MEDT A195A, MEDT A195B, MEDT A295 or MEDT A495) must purchase by the training facility. Personal protective equipment is provided by the training facility. The clinical facilities require proof of medical insurance coverage; therefore, students are required to maintain personal medical insurance while enrolled in practicum courses. Medical insurance is available through the Student Health Center. Liability insurance is purchased by the Medical Laboratory Technology Department to cover the student’s practicum. The nontranscripted departmental certificates, AAS and BS degrees are not contingent upon the students passing any type of external certification or licensure examination.

The AAS in Medical Laboratory Technology and the BS in Medical Technology Programs are accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), 8410 W. Bryn Mawr Avenue, Suite 670, Chicago, IL, 60631-3415. NAACLS is recognized by the United States Department of Education and by the Council for Higher Education.
NONTRANScribed DEPARTMENTal CERTIFICATE OF COMPLETION, PHLEBOTOMIST

PHLEBOTOMIST

Phlebotomists obtain blood and other samples for laboratory testing. They establish professional relationships with their patients, collect and prepare specimens, maintain collection areas and equipment, and perform record keeping duties. Students are eligible to sit for national certification exams in phlebotomy after completion of the nontranscribed certificate program. Students must complete the following courses:

- MEDT A101 Phlebotomy Procedures 3
- MEDT A195A Phlebotomy Practicum 3

NONTRANScribed DEPARTMENTal CERTIFICATE OF COMPLETION, CLINICAL ASSISTANT

CLINICAL ASSISTANT

Clinical assistants perform basic laboratory testing in medical laboratories, working under the supervision of a medical technologist, medical laboratory technician or pathologist. A clinical assistant collects and processes blood specimens and performs test procedures in chemistry, hematology, microbiology and urinalysis. Clinical assistants may also perform and record vital signs. A clinical assistant is competent in the following:

- Demonstrating knowledge of infection control and safety practices.
- Using common medical terminology.
- Following standard operating procedures to collect specimens.
- Preparing blood and body fluid specimens for analysis according to standard operating procedures.
- Preparing/reconstituting reagents, standards and controls according to standard operating procedures.
- Performing appropriate tests at the clinical assistant level, according to standard operating procedures.
- Following established quality control protocols.
- Communicating (verbally and nonverbally) effectively and appropriately in the workplace.
- Using information systems necessary to accomplish job functions.
- Identifying and reporting potential pre-analytical errors that may occur during specimen collection, labeling, transporting and processing.

The Clinical Assistant Nontranscribed Departmental Certificate of Completion, is only offered by distance delivery. Students must contact the Medical Laboratory Technology Department to arrange for a mentor and clinical training facility prior to enrolling in any of the courses.

Students must complete the following courses:

- MEDT A101 Phlebotomy Procedures 3
- MEDT A195A Phlebotomy Practicum 3
- MEDT A102 Urinalysis for Clinical Assistants 2
- MEDT A103 Hematology for Clinical Assistants 3
- MEDT A104 Clinical Chemistry for Clinical Assistants 3
- MEDT A105 Microbiology for Clinical Assistants 3
- MEDT A195B Clinical Assistant Practicum 7

ASSOCIATE OF APPLIED SCIENCES, MEDICAL LABORATORY TECHNOLOGY

The mission of the Medical Laboratory Technology program is to graduate competent, ethical professionals with the knowledge and skills necessary for work as entry-level medical laboratory technicians. The registered medical laboratory technician (also known as a clinical laboratory technician) is an allied health professional who is qualified by academic and practical training to provide service in clinical laboratory science. The ability to relate to people, a capacity for calm and reasoned judgment, and a demonstration of commitment to the patient are essential qualities for medical laboratory technicians. The medical laboratory technician must demonstrate ethical and moral attitudes and principles, which are essential for gaining and maintaining the trust of professional associates, the support of the community, and the confidence of the patient and family. An attitude of respect for the patient and confidentiality of the patient's record and/or diagnosis must be maintained. A medical laboratory technician is competent in the following:

- Performing analytical tests of body fluids, cells, and other substances.
- Performing preventive and corrective maintenance of equipment and instruments.
- Confirming abnormal results, performing and verifying quality control procedures.
- Exercising principles of safety.
- Demonstrating professional conduct and interpersonal skills with patients, laboratory personnel, other health care professionals, and the public.
- Establishing and maintaining continuing education as a function of growth and maintenance of professional competency.

Upon graduation and initial employment, the medical laboratory technician/clinical laboratory technician should be able to demonstrate entry-level competencies in the above areas of professional practice. Graduates are eligible to sit for national certification exams in medical laboratory technician/clinical laboratory technician after completing the program.

ADMISSION REQUIREMENTS

1. Complete the Associate Degree Programs Admission Requirements at the beginning of this chapter.
2. Complete the General Admissions requirements for all programs in the Medical Laboratory Technology Department that are listed at the beginning of this section.
3. Meet with the Medical Laboratory Technology Program advisor regarding application, program admission, and development of a program of study.

ACADEMIC PROGRESS

In order to progress within the Associate of Applied Science in Medical Laboratory Technology program, students must earn a satisfactory grade (C or higher or P) in all medical laboratory technology (MEDT) courses required for the degree and demonstrate professional behavior as defined by the "Medical Laboratory Technology Department Core Abilities" and associated behavior criteria. Satisfactory progress is demonstrated by exhibiting Developing Level Criteria by the end of the second year (assessed by core faculty), and Entry Level Criteria by the end of the Clinical Practicum (assessed by clinical instructors). Students must receive a score of "3" or higher on the Developing Level Criteria in order to progress in the program and a score of "3" or higher in the Entry Level Criteria to graduate from the program. Students who are unable to earn an acceptable grade in the MEDT courses during their initial enrollment may attempt to earn a satisfactory grade one additional time on a space available basis.

When the number of students admitted to the program exceeds the number that can be accommodated in the clinical practicum, students are placed on an "alternate list" and informed they can complete their practicum should space become available, or they are given preference for a subsequent semester. Students receive a letter stating they are an alternate; they sign and return the letter acknowledging alternate status.

GRADUATION REQUIREMENTS

A. GENERAL UNIVERSITY REQUIREMENTS

1. Complete the General University Requirements for Associate Degrees located at the beginning of this chapter.
2. Complete the Associate of Applied Science General Degree Requirements (15 credits) located at the beginning of this chapter.
B. REQUIRED SUPPORT COURSES
Complete all 15 credits of support courses for the Medical Laboratory Technology major with a satisfactory grade (C or higher):

- BIOL A111 Human Anatomy and Physiology I 4
- BIOL A112 Human Anatomy and Physiology II 4
- CHEM A103/L Survey of Chemistry 4
- CHEM A104 Introduction to Organic Chemistry and Biochemistry 3

C. MAJOR REQUIREMENTS
1. Complete the following major courses with a satisfactory grade (C or higher or P):
   - MEDT A132 Introduction to Laboratory Medicine 3
   - MEDT A202 Clinical Chemistry 6
   - MEDT A203 Clinical Microbiology 6
   - MEDT A204 Hematology and Coagulation 6
   - MEDT A206 Immunology and Blood Banking 6
   - MEDT A208 Urine and Body Fluid Analysis 3
   - MEDT A250 Capstone Seminar 1
   - MEDT A295 Clinical Practicum 12

2. A total of 67 credits is required for the degree.

BACHELOR OF SCIENCE, MEDICAL TECHNOLOGY
Medical Technologist
The mission of the Medical Technology program is to graduate competent, ethical professionals with the knowledge and the skills necessary for work as entry level medical technologists. The registered medical technologist (also known as a clinical laboratory scientist) is an allied health professional who is qualified by academic and practical training to provide service in clinical laboratory science. The ability to relate to people, a capacity for calm and reasoned judgment, and a demonstration of commitment to the patient are essential qualities for a medical technologist. The medical technologist must demonstrate ethical and moral attitudes and principles, which are essential for gaining and maintaining the trust of professional associates, the support of the community, and the confidence of the patient and family. An attitude of respect for the patient and confidentiality of the patient’s record and or diagnosis must be maintained. A medical technologist is competent in the following:

- Developing and establishing procedures for collecting, processing, and analyzing biological specimens and other substances.
- Performing analytical tests of body fluids, cells, and other substances.
- Integrating and relating data generated by various clinical laboratory departments while making decisions regarding possible discrepancies.
- Confirming abnormal results, performing and verifying quality control procedures, and developing solutions to problems concerning the generation of laboratory data.
- Making decisions concerning the results of quality control and quality assurance measures and instituting proper procedures to maintain accuracy and precision.
- Establishing and performing preventive and corrective maintenance of equipment and instruments, as well as identifying appropriate sources for repairs.
- Developing, evaluating and selecting new techniques, instruments and methods in terms of their usefulness and practicality within the context of a given laboratory’s personnel, equipment and budgetary resources.
- Demonstrating professional conduct and interpersonal skills with patients, laboratory personnel, other health care professionals, and the public.
- Establishing and maintaining continuing education as a function of growth and maintenance of professional competency.
- Providing leadership in educating other health personnel and the community.
- Exercising principles of management, safety and supervision.
- Applying principles of educational methodology and principle of current information systems.

Upon graduation and initial employment, the medical technologist should be able to demonstrate entry level competencies in the above areas of professional practice. Students are eligible to sit for national certification exams in medical technology/clinical laboratory science after completion of the program.

Students enrolled in the Medical Technology Practicum course (MEDT A495) must provide their own transportation to the clinical facility. Personal protective equipment is provided by the training facility. Students are financially responsible for any costs incurred due to illness or injury experienced by the student in conjunction with the student labs and practicum. It is strongly recommended that students maintain personal medical insurance. Liability insurance is purchased by the Medical Laboratory Technology Program to cover students during their Medical Technology Practicum. The BS degree is not contingent upon the students passing any type of external certification or licensure examination.

ADMISSION REQUIREMENTS
1. Complete the Admission to Baccalaureate Programs Requirements in Chapter 7, “Academic Standards and Regulations.”
2. Complete the General Admission Requirements for all programs in the Medical Laboratory Technology Department that are listed at the beginning of this section.
3. Meet with the Medical Technology Program advisor regarding application, program admissions, and development of a program of study.
4. Prior to enrollment in MEDT A132, students must provide documentation of the following:

ACADEMIC PROGRESS
In order to progress within the Bachelor of Science Medical Technology program, students must earn a satisfactory grade (C or higher or P) in all medical technology courses required for the degree and demonstrate professional behavior as defined by the “Medical Laboratory Technology Department Core Abilities” and associated behavior criteria. Satisfactory progress is demonstrated by exhibiting Developing Level Criteria by the end of the second year (assessed by core faculty), and Entry Level criteria by the end of the Medical Technology Practicum (assessed by clinical instructors).

Students must receive a score of “3” or higher on the Developing Level Criteria in order to progress in the program and a score of “3” or higher in the Entry Level Criteria to graduate from the program. Students who are unable to earn an acceptable grade in the MEDT courses during their initial enrollment may attempt to earn a satisfactory grade one additional time on a space available basis.

When the number of students admitted to the program exceeds the number that can be accommodated in the clinical practicum, students are placed on an “alternate list” and informed they can complete their practicum should space become available, or they are given preference for a subsequent semester. Students receive a letter stating they are an alternate; they sign and return the letter acknowledging alternate status.

GRADUATION REQUIREMENTS
A. GENERAL UNIVERSITY REQUIREMENTS
Complete the General University Requirements for Baccalaureate Degrees listed at the beginning of this chapter.

B. GENERAL EDUCATION REQUIREMENTS
Complete the General Education Requirements for Baccalaureate Degrees listed at the beginning of this chapter. In the Medical Technology program, some required prerequisite courses fulfill general education requirements.
C. REQUIRED SUPPORT COURSES

1. Complete all 32-35 credits of support courses for the Medical Technology major with a satisfactory grade (C or higher):

   - BIOL A111 Human Anatomy and Physiology I 4
   - BIOL A112 Human Anatomy and Physiology II 4
   - CHEM A103/L Survey of Chemistry (4) 4
   or
   - CHEM A105/L General Chemistry I (4)
   - CHEM A104L Introduction to Organic Chemistry 4/7
   and Biochemistry (4)
   or
   - CHEM A106/L General Chemistry II (4)
   and
   - CHEM A321 Organic Chemistry I (3)
   - MATH 107 College Algebra or Higher 3/4
   - AS 252 Elementary Statistics or Higher 3/4
   - ENGL 312 Advanced Technical Writing 3
   - CIS 305 Managerial Presentations 3
   - PHIL A302 Biomedical Ethics 3

D. MAJOR REQUIREMENTS

1. Complete the following major courses with a satisfactory grade (C or higher or P):

   - MEDT A132 Introduction to Laboratory Medicine 3
   - MEDT A202 Clinical Chemistry 6
   - MEDT A203 Clinical Microbiology 6
   - MEDT A204 Hematology and Coagulation 6
   - MEDT A206 Immunology and Blood Banking 6
   - MEDT A208 Urine and Body Fluid Analysis 3
   - MEDT A301 Clinical Molecular Biology 4
   - MEDT A302 Clinical Laboratory Education and Management 4
   - MEDT A303 Advanced Clinical Microbiology 4
   - MEDT A492 Undergraduate Seminar 1
   - MEDT A495 Medical Technology Practicum (12) 24

2. A total of 123-126 credits is required for the degree, of which 42 credits must be upper-division.

FACULTY

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Jill Jefson, Term Assistant Professor, AFEJJ1@uaa.alaska.edu
Heidi Mannion, Associate Professor, AFHAM@uaa.alaska.edu

ASSOCIATE OF APPLIED SCIENCE, OCCUPATIONAL SAFETY AND HEALTH

ADMISSION REQUIREMENTS

1. Contact the Occupational Safety and Health department at (907) 786-6423 for an appointment with a faculty advisor.
2. Request an admission and advising packet.
3. Demonstrate computer competency evidence by any of the following:
   a. A 3-credit or equivalent course using one or more of the following applications: Word processing, spreadsheets, databases, or an introductory course in data processing or microcomputers.
   b. Work-related experience verifying computer competency as approved by the faculty advisor.
   c. Self-initiated computer competency as approved by the faculty advisor.

GENERAL UNIVERSITY REQUIREMENTS

1. Complete the General University Requirements for Associate Degrees located at the beginning of this chapter.
2. Complete the Associate of Applied Science General Degree Requirements (15 credits) located at the beginning of this chapter. Some of the major requirements also will fulfill associate of applied science degree general requirements.

MAJOR REQUIREMENTS

1. Complete the following required courses:

   - BIOL A100 Human Biology 3
   - CHEM A103 Survey of Chemistry 3
   - CHEM A103L Survey of Chemistry Laboratory 1
   - ENGL A212 Technical Writing 3
   - MATH A105 Intermediate Algebra 3
   - AS 252 Elementary Statistics or Higher 3/4
   - ENGL 312 Advanced Technical Writing 3
   - CIS 305 Managerial Presentations 3
   - PHIL A302 Biomedical Ethics 3

2. A total of 61 credits is required for the degree.

FACULTY

Curt Sather, Professor, AFCES@uaa.alaska.edu

OCCUPATIONAL SAFETY AND HEALTH

http://osh.uaa.alaska.edu
University Center (UC), Suite 130, (907) 786-6423

The Occupational Safety and Health program prepares students for employment as a safety professional in a variety of industries. Some of these industries include: construction, petroleum, mining and tourism. The safety profession is a growing field with a wide range of opportunities for employment. This program provides a thorough background in Occupational Safety and Health preparing graduates for entry-level positions in many of the industries in Alaska.

The Occupational Safety and Health program is a 61 credit Associate of Applied Science degree. Students experience a wide variety of course work in the safety field including hazardous materials training, ergonomics, industrial hygiene, injury prevention, epidemiology, OSHA standards, and safety program development.

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Jill Jefson, Term Assistant Professor, AFEJJ1@uaa.alaska.edu
Heidi Mannion, Associate Professor, AFHAM@uaa.alaska.edu

* An advisor approved elective course may be substituted for TECH A495, Technical Internship.

2. A total of 61 credits is required for the degree.

FACULTY

Curt Sather, Professor, AFCES@uaa.alaska.edu
PARAMEDICAL TECHNOLOGY

http://www.kpc.alaska.edu
Kenai Peninsula College - Emergency Medical Services Department (Ward Building Room 294C) Contact Paul Perry (907) 262-0378

http://alliedhealth.uaa.alaska.edu/pmed
University of Alaska Anchorage - Allied Health Sciences (AHS Building Room 165) Contact Gail Ownby-Hughes (907) 786-6476

Paramedics provide prehospital emergency care to acutely ill or injured patients under medical authority of licensed physicians. Individuals interested in pursuing a career as a paramedic should possess significant strength to lift and carry victims, good use of hands and fingers, good coordination, good judgment and emotional stability, as well as the ability to work confidently under pressure. Students successfully completing the degree requirements and the PMED courses meet the U.S. Department of Transportation National Standards for Paramedics are eligible to take the National Registry examination required for licensure.

Two primary requirements of the Paramedic Program are clinical rotations and the field internship. Clinical rotations provide instruction and supervised practice of emergency medical skills in various units of hospitals within the Anchorage and Soldotna areas. The field internship provides experience in advanced life support vehicles such as ambulances, helicopters, and fixed wing aircraft. Student interns are the third member of the medical/rescue team and work under the direct supervision of a paramedic preceptor. Internship sites are arranged in various U.S. locations. Efforts are made to place students in geographic locations of their choice; however, intern positions may not be available at all approved sites. Length of internship varies depending on the call volume at the location and successful application of paramedic skills.

ASSOCIATE OF APPLIED SCIENCE, PARAMEDICAL TECHNOLOGY

PROGRAM OUTCOMES

Graduates of the Paramedical Technology Program will understand their roles and responsibilities as a Paramedic within an EMS system by applying the basic concepts of development, pathophysiology and pharmacology to assess and manage patients with emergency medical needs. Graduates will be able to maintain a patient’s airway, oxygenate, and ventilate a patient and be able to take a proper history and perform a comprehensive physical exam. Graduates will be able to properly administer medications, and communicate effectively with other healthcare providers including physicians, nurses, and other allied health personnel. Graduates will be able to integrate pathophysiological principles and assessment findings to formulate a field impression and implement a treatment plan for trauma and medical patients of all ages.

ADMISSION REQUIREMENTS FOR DEGREE COMPLETION

Paramedical Technology is offered as a degree completion program for students who are current registered Paramedics through the National Registry of Emergency Medical Technicians http://www.nremt.org. In Anchorage contact Gail Ownby-Hughes for more information. (907) 786-6476 http://alliedhealth.uaa.alaska.edu/paramedic.

In Kenai contact Paul Perry (907) 262-0378 http://www.kpc.alaska.edu.

ADMISSION REQUIREMENTS FOR AAS DEGREE PROGRAM

Students who are not current registered Paramedics through the National Registry of Emergency Medical Technicians must apply to the AAS Paramedic Technology program offered at Kenai Peninsula College. Admission to the KPC Paramedic Program is competitive and based on a ranking process. Program applications can be requested through the department or downloaded via the internet. Application requirements must be completed prior to the APRIL 15 application deadline.

Pre-Major (Kenai Peninsula College)

Students should consider applying for admission as a pre-major in Paramedical Technology while enrolled in other Paramedical Technology degree prerequisite courses. While admission as a pre-major is not required, students may be eligible for financial aid when admitted. Students enrolled as Paramedical Technology pre-majors are still required to obtain a KPC Certificate of Admission. Admission as a Paramedical Technology pre-major does not guarantee admission to the Paramedical Technology degree program.

Admission requirements for the Paramedical Technology AAS degree program are listed below. Applications for the degree program that starts each fall must be submitted by the April 15 deadline.

1. Certificate of Admission from Enrollment Services, including transcripts from both high school/GED and college, with transcript evaluations (if any). Documentation from college transcripts must show successful completion of Biology A111 and Biology A112 with laboratories and grades of 2.00 “C” or above.
2. Students must attend an advising session with the KPC Paramedic Coordinator; Call (907) 262-0378 for an appointment.
3. Paramedic Program Application and Confidential Required Information form must be sent to the Paramedic Coordinator with the following:
   a. Copy of the student’s current status of EMT - Basic listed in the National Registry of EMT’s, or State of Alaska EMT-I/II certificate
   b. Evidence of current Healthcare Provider or equivalent, CPR Card
   c. Copies of all current medical certifications or licenses
   d. Military DD-214 (long form); if applicable
   e. Transcripts showing completion of Anatomy & Physiology I and II (BIOL A111, BIOL A112; 8 credits); with a minimum “C” grade
   f. Scores from the Nurse Entrance Test (NET) completed within the past 3 years. This test is scheduled through the Learning Center at KPC. Call (907) 262-0327 for specific dates and to sign up.
   g. A current resume with three letters of recommendation
   h. Admissions Essay
4. Upon completion of items 1-3, student files are ranked based on a point system. The top 20 applicants are notified and invited for oral interviews by a selection committee. The top 15 are accepted into the Program. The remaining 5 standby applicants are ranked and offered a position should an accepted applicant decline admission. Please contact department for further details. Students are contacted in May with their results.

Once admitted to the associate degree Paramedical Technology Program, students are required to provide the following before actually beginning course work.

1. Evidence of:
   a. Immunity to rubella and rubola, confirmed by titer;
   b. Immunity to Hepatitis A and Hepatitis B, confirmed by titer. First semester clinical students may be in the process of completing the immunization series. For those students, documentation of immunity by titer is required prior to entry into PMED A295 course.
   c. Immunity to chicken pox documented by history, titer or current immunization;
   d. Diphtheria/tetanus vaccination within the past ten years (with booster required at the time of expiration);
   e. Freedom from active tuberculosis, documented annually by negative PPD skin test or by health exam by a nurse practitioner, physician, or physician’s assistant;
   f. Documentation of HIV testing annually (results not required to be submitted to KPC).
2. Healthcare Provider, or equivalent CPR certificate must be kept current until graduation.
3. Professional liability insurance in the amount of $1 million/$3 million must be maintained throughout the duration of the student’s enrollment in the Paramedic Program. The policy will be paid out of student lab fees.

4. Results of a national level criminal background check must be completed prior to the start of PMED courses. This process takes several months to complete. A check that reveals convictions that prohibit participation in required PMED courses or experiences will result in denial of admission.

Students enrolled in clinical courses must provide their own transportation to clinical assignments and will be required to purchase uniforms and specialized equipment. The college assumes no responsibility for illnesses and injuries experienced by students in conjunction with their clinical experiences; students who are injured while completing clinical assignments are responsible for all associated medical costs. No workers compensation will be awarded if injured on a clinical site, or during the field internship. It is strongly recommended that students maintain personal medical insurance.

**ACADEMIC PROGRESS**

1. Students are required to earn a grade of 3.00 “B” or higher in each PMED course. Failure to maintain a grade of “B” will result in dismissal from the program.

2. Students MUST complete all General Degree courses (English, Communications and Math) before they register for or begin their ride-along internship (PMED A295).

**GENERAL UNIVERSITY REQUIREMENTS**

1. Complete the associate degree requirements located at the beginning of the chapter.

2. Complete the Associate of Applied Science General Degree Requirements (15 credits) located at the beginning of the chapter. ENGL A212 is recommended. BIOL A111 and BIOL A112 fulfill the six-credit general requirement for the AAS degree.

**MAJOR REQUIREMENTS**

1. Complete the following required courses:
   - **BIOL A111**  Human Anatomy and Physiology I  4
   - **BIOL A112**  Human Anatomy and Physiology II  4
   - **PMED A241**  Paramedicine I  8
   - **PMED A251**  Paramedicine II  8
   - **PMED A261**  Paramedicine III  8
   - **PMED A242**  Clinical Rotation I  4
   - **PMED A252**  Clinical Rotation II  4
   - **PMED A262**  Clinical Rotation III  4
   - **PMED A295**  Paramedical Internship  12

2. A minimum of 68 credits are required for the degree.
PHARMACY TECHNOLOGY

http://alliedhealth.uaa.alaska.edu/phar
Allied Health Science Building (AHS), Room 151B, (907) 786-6940

Admission to the Certificate program is currently suspended. Some PHAR courses are being offered, contact the department for further information.

Pharmacy Technology is designed to prepare students to assist the pharmacist in duties that a technician can legally perform and to function within the boundaries set by the pharmacist and the employer. The certificate in Pharmacy Technology includes preparation for the Pharmacy Technician Certification Board examination and enhances further study in pharmacy disciplines.

Pharmacy Technicians maintain patient records; fill prescriptions; maintain inventories; set up, package, and label medication doses; and prepare solutions and IV additives. Pharmacy Technicians also perform clerical duties, including insurance reimbursement forms and third-party payers. Graduates may be employed in hospitals, nursing homes, private and chain drug stores, research laboratories, wholesale drug companies, and pharmaceutical manufacturing facilities.

Occupational opportunities for Pharmacy Technicians are excellent. Pharmacy Technicians work under the immediate supervision of pharmacists. Qualified pharmacy technicians are in high demand nationwide and the Occupational Outlook Handbook predicts a steady growth in this allied health field.

CERTIFICATE, PHARMACY TECHNOLOGY

APPLICATION PROCEDURE

1. Submit Pharmacy Technology departmental application.
2. Apply to UAA declaring Pharmacy Technology as your major.
3. Schedule UAA approved placement test with Testing and Assessment Services at (907) 786-4500.
4. Interview and orientation with the Program Chair (907) 786-6940.
5. Prior to enrolling in PHAR A195, students must have:
   a. Current immunizations as required by the department.*
   b. Current BLS-P or CPR for Professionals certification and First Aid.*
   c. Current Alaska Pharmacy Technician license.

*Certifications and licensure must remain current throughout the practicum courses. Contact the Pharmacy Technology department for specifics regarding these requirements.

ACADEMIC PROGRESS

Students must complete each required Pharmacy Technology course with a grade of "C" or higher in order to receive a Certificate of Completion. Students who are unable to earn a "C" or higher in a pharmacy technology course may, in an attempt to earn a satisfactory grade enroll in a course for one additional time on a space available basis.

ADMISSION REQUIREMENTS

1. Complete application procedure listed above.
2. Placement test.

MAJOR REQUIREMENTS

1. Complete the following courses:
   PHAR A101 Introduction to Pharmacy 3
   PHAR A102 Pharmacy Terminology 3
   PHAR A103 Pharmacy Law & Ethics 3
   PHAR A104 Survey of Pharmacotherapeutics I 3
   PHAR A105 Pharmacology for Technicians I 3
   PHAR A106 Professionalism in Pharmacy 2
   PHAR A107 Pharmacy Dosing Formulae & Concentrations 3
   PHAR A111 Techniques of Pharmacy Practice 3
   PHAR A112 Information Technology for Pharmacy Technicians 2
   PHAR A114 Survey of Pharmacotherapeutics II 3
   PHAR A115 Pharmacology for Technicians II 3
   PHAR A195 Pharmacy Practicum 7

2. A total of 38 credits are required for this certificate.

FACULTY

Kathi Baldwin, Term Assistant Professor/Program Director, AFKB@uaa.alaska.edu

PROCESS TECHNOLOGY

http://www.kpc.alaska.edu
Kenai Peninsula College (KPC)
34820 College Drive, Soldotna, Alaska 99669, (907) 262-0365
Community and Technical College
University Center (UC)(907) 562-5313

This degree is designed to provide education/training that will enable individuals to obtain employment in the industries that use and control mechanical, physical or chemical processes to produce a product. In Alaska this includes the process industries of oil and gas production, chemical manufacturing, petroleum refining, power generation and utilities, water and wastewater treatment, and seafood and other food processing.

The Associate of Applied Science degree in Process Technology is coordinated by Kenai Peninsula College and is delivered collaboratively through UAA and UAF.

ASSOCIATE OF APPLIED SCIENCE, PROCESS TECHNOLOGY

ADMISSION REQUIREMENTS

1. Placement at the MATH A101 entry-level or above, equivalent course, or appropriate ACT/SAT scores.
2. Placement for reading at the PRPE A107 level or above.
3. Students must see a faculty advisor in the Process Technology program prior to registering for Process Technology courses.

GENERAL UNIVERSITY REQUIREMENTS

Complete the General University Requirements for Associate Degrees located at the beginning of this chapter. All courses must be at the 100-level or above.

COMMUNICATION AND GENERAL REQUIREMENTS

1. Oral Communication Skills (One of the following): 3
   COMM A111 Fundamentals of Oral Communication (3)
   COMM A235 Small Group Communication (3)
   COMM A237 Interpersonal Communication (3)
   COMM A241 Public Speaking (3)
2. Written Communication Skills: 6
   ENGL A111 Methods of Written Communication (3)
   ENGL A211 Academic Writing About Literature (3)
   ENGL A212 Technical Writing (3)
   ENGL A213 Writing in the Social and Natural Sciences (3)
3. Support Courses:
Math: 3-4
Math A105 Intermediate Algebra
or
Math A107 College Algebra
Computer Literacy: 0-3
CIS A105 Introduction to Personal Computers and Application Software (3)
or
CIS A110 Computer Concepts in Business (3)
or
Pass a computer literacy test
Natural Science: 8
Phys A115 Physical Science I for Technicians
and
Phys A116 Physical Science II for Technicians
or
Phys A123/L Basic Physics I
and
Chem A103/L Survey of Chemistry
or
Phys A115 Physical Science I for Technicians
and
Chem A103/L Survey of Chemistry
Social Science: 3
Elective

MAJOR REQUIREMENTS

1. Complete the following required courses:
   PRT A101 Introduction to Process Technology 3
   PRT A110 Introduction to Occupational Safety, Health, and Environmental Awareness 3
   PRT A130 Process Technology I: Equipment 4
   PRT/Petr A140 Industrial Process Instrumentation I 3
   PRT/Petr A144 Industrial Process Instrumentation II 3
   PRT A230 Process Technology II: Systems 4
   PRT A231 Process Technology III: Operations 4
   PRT A250 Process Troubleshooting 3
   PRT A255 Quality Concepts for the Process Industry 1

2. Approved Applied Technology Electives 9
   All nine credits must be chosen with advisor approval. For example, they may be chosen from:
   Electronics
   Industrial Process Instrumentation
   Mining Technology
   Occupational Safety and Health
   Petroleum Technology
   Process Technology
   Power Generation
   Environmental Technology
   Technology
   Technical Internship

3. Total credits required for degree 60-64

FACULTY

Matthew Scully, Assistant Professor, AFMS1@uaa.alaska.edu

UNDERGRADUATE PROGRAMS, COMMUNITY AND TECHNICAL COLLEGE

RADIOLOGIC TECHNOLOGY

http://alliedhealth.uaa.alaska.edu/RADT
Allied Health Science Building (AHS), Room 151B, (907)786-6940

The Radiologic Technology program prepares students for employment as career entry Medical Radiographers. Students completing the program receive an Associate of Applied Science degree and are eligible to apply for certification with the American Registry of Radiologic Technologists (ARRT).

Graduates are prepared with the technical skills necessary to perform a variety of diagnostic radiographic examinations. The primary role of the radiographer is to provide diagnostic images of the structure and function of anatomy to assist the physician in the treatment of injury and disease. Examples of examinations performed include chest, upper and lower extremities, spine, ribs, skull, gastrointestinal, genitourinary, and reproductive systems.

The program of study incorporates didactic instruction, laboratory demonstration, and clinical application in a manner that provides correlation of theory with practice. The inclusion of general university requirements fulfills program goals of developing knowledgeable and competent practitioners who will have opportunities for continued professional growth. Additional expenses include clinical attire, vaccinations, identification badge, and other organization fees.

The AAS degree is not contingent upon the students passing any type of external certification or licensure examination.

ASSOCIATE OF APPLIED SCIENCE, RADIOLOGIC TECHNOLOGY

ADMISSIONS REQUIREMENTS

Satisfy the Admission to Certificate and Associate Degree Programs Requirements in Chapter 7, “Academic Standards and Regulations.”

Students will be admitted to the Radiologic Technology program as a pre-major. Prior to being admitted as a full major the student must complete the following additional admission requirements:

1. Submit Medical Imaging Sciences Department, Radiologic Technology application.
2. Earn a grade of “C” or better in BIOL A111, BIOL A112, and MA A101.
3. Three letters of reference sent to Program Director, Medical Imaging Sciences Department.
4. Current First Aid/CPR for Professionals or BLS-C certification.
5. Evidence of current immunization to include the following:
   a. Rubella and rubeola, confirmed by titer;
   b. Immunity to Hepatitis A and Hepatitis B, confirmed by titer;
   c. Immunity to chicken pox documented by history, titer, or current immunization;
   d. Diphtheria/tetanus vaccination within the past ten years (with booster required at the time of expiration);
   e. Freedom from active tuberculosis, documented annually by negative PPD skin test or by health exam;
   f. Documentation of HIV testing annually (results not required).
6. Evidence of current immunization to include the following:
   a. Rubella and rubeola, confirmed by titer;
   b. Immunity to Hepatitis A and Hepatitis B, confirmed by titer;
   c. Immunity to chicken pox documented by history, titer, or current immunization;
   d. Diphtheria/tetanus vaccination within the past ten years (with booster required at the time of expiration);
   e. Freedom from active tuberculosis, documented annually by negative PPD skin test or by health exam;
   f. Documentation of HIV testing annually (results not required).
7. Upon completion of items 1-5, student should contact the Medical Imaging Sciences Department for a personal interview with program faculty.
8. Provide non-FBI criminal background check.

GENERAL UNIVERSITY REQUIREMENTS

1. Complete the General University Requirements for Associate Degrees located at the beginning of this chapter.
2. Complete the Associate of Applied Science General Degree Requirements located at the beginning of this chapter (ENGL A212 recommended).
Major Requirements

1. Complete the following required courses:
   - MATH A105 Intermediate Algebra (3) or MATH A107 College Algebra (4)
   Select one of the following:
   - PSY A111, PSY A150, PSY A153, or SOC A101.

2. Professional course requirements:
   - RALT A111 Introduction to Radiologic Technology and Patient Care (3)
   - RALT A131 Radiographic Procedures I (3)
   - RALT A131 Radiographic Procedures II (3)
   - RALT A133 Radiographic Procedures III (3)
   - RALT A151 Medical Imaging Physics (2)
   - RALT A161 Fundamentals of Medical Imaging I (3)
   - RALT A171 Fundamentals of Medical Imaging II (3)
   - RALT A195A Radiography Practicum I (2)
   - RALT A195B Radiography Practicum II (3)
   - RALT A195C Radiography Practicum III (3)
   - RALT A211 Radiologic Pharmacology and Drug Administration (1)
   - RALT A251 Radiobiology and Protection (2)
   - RALT A272 Quality Control in Medical Imaging (2)
   - RALT A280 Medical Imaging Pathology (3)
   - RALT A282 Current Issues in Radiologic Technology (1)
   - RALT A295A Radiography Practicum IV (5)
   - RALT A295B Radiography Practicum V (5)

3. A total of 62 credits are required for the degree.

FACULTY

Erica Koch Wight, Term Assistant Professor, afekw@uaa.alaska.edu

REFRIGERATION AND HEATING TECHNOLOGY

Matanuska-Susitna College
P.O. Box 2889, Palmer, Alaska, 99645, (907) 745-9715

The Refrigeration and Heating Technology program is offered only through Matanuska-Susitna College.

Four specialty certificates, one universal certificate, and an Associate of Applied Science degree in Refrigeration and Heating are available. Satisfactory completion of the four specialty certificates will qualify a student for the universal certificate in Refrigeration and Heating Technology. The AAS degree may be earned by obtaining the universal Refrigeration and Heating Technology certificate and successfully completing the standard General Education Requirements for an Associate degree. A student satisfactorily completing the requirements for a certificate or the degree will possess a background in heating, air-conditioning, applied physics, mathematics, electricity, and the technical skills required to diagnose and repair modern commercial and residential heating, refrigeration, air-conditioning, and ventilation systems.

All students enrolling in the R&H program must take a standardized placement test in reading, writing, and mathematics. The faculty place heavy emphasis on student preparation for job entry-level skills.

Professional tests related to the industry are administered as part of this program. If possible, additional training may take place on the job to provide a student with work related experience. Students must successfully pass all of the classes listed in the Core Requirements module before attempting any of the specialty certificate courses.

Program Objectives and Expected Outcomes

The curriculum of the Matanuska Susitna College Refrigeration and Heating Program is designed to produce graduates able to:

1. Use the fundamental laws of physics related to the Heating, Ventilation, Air Conditioning, and Refrigeration (HVAC/R) industry.
2. Use mathematical skills required to succeed in HVAC/R trades.
3. Understand and describe the function of individual components that make up HVAC/R systems.
4. Work safely with tools, torches, electricity, refrigerants, heating fuels, and other equipment and material associated with HVAC/R work.
5. Follow work practices that are environmentally responsible.
6. Obtain employment as an entry level HVAC/R technician and be able to advance professionally.
7. Work effectively with customers, employers, and co-workers.
8. Systematically troubleshoot HVAC/R systems.
9. Apply municipal, state, and national mechanical codes to decisions involving the design, installation, operation and maintenance of HVAC/R systems.

Nontranscribed Departmental Certificates of Completion

Prerequisites

Certain courses require prerequisites or faculty permission. Students seeking an R&H certificate must complete the following core requirements.

Nontranscribed Core Requirements

- RH A103 Technical Math for Industrial Trades (3)
- RH A105 Electrical Circuits for R&H I (3)
- RH A109 Principles of Thermodynamics (3)
- RH A209 Codes for HVAC/R (2)
- RH A211 Customer Relations and Job Etiquette (1)

Nontranscribed Certificate, Residential and Light Commercial Heating and Ventilation

1. Complete the Core Requirements. (12)
2. Complete the following certificate requirements:
   - RH A203 HVAC/R Basic Controls (3)
   - RH A225 Heating Fundamentals and Forced Air Heat (4)
   - RH A228 Advanced Hydronic Heat Systems (4)

3. A total of 23 credits are required for the certificate.

Nontranscribed Certificate, Commercial HVAC Systems

1. Complete the Core Requirements. (12)
2. Complete the following certificate requirements:
   - RH A226 Commercial HVAC/R Systems (3)
   - RH A229 HVAC/R Control Systems (3)
   - RH A232 HVAC/R Sheet Metal (3)

3. A total of 22 credits are required for the certificate.

Nontranscribed Certificate, Residential and Light Commercial Air-Conditioning & Refrigeration

1. Complete the Core Requirements. (12)
2. Complete the following certificate requirements:
   - RH A101 Refrigeration & Air Conditioning Fundamentals (4)
   - RH A126 Electrical Circuits for R&H II (3)
   - RH A132 Troubleshooting for HVAC/R Systems (3)

3. A total of 22 credits are required for the certificate.
Nontranscripted Certificate, Commercial Refrigeration Systems

1. Complete the Core Requirements.
2. Complete the following certificate requirements:
   - RH A122 Refrigeration and Air-Conditioning 4
   - RH A201 Commercial and Ammonia Refrigeration 4
3. A total of 20 credits are required for the certificate.

CERTIFICATE, REFRIGERATION AND HEATING TECHNOLOGY

1. Complete the Core Requirements:
   - RH A103 Technical Math for Industrial Trades 3
   - RH A105 Electrical Circuits for R&H I 3
   - RH A109 Principles of Thermodynamics 3
   - RH A209 Codes for HVAC/R 2
   - RH A211 Customer Relations and Job Etiquette 1
2. Complete the following certificate requirements:
   - RH A101 Refrigeration & Air-Conditioning Fundamentals 4
   - RH A126 Electrical Circuits for R&H II 3
   - RH A132 Troubleshooting for HVAC/R Systems 3
   - RH A203 HVAC/R Basic Controls 3
   - RH A225 Heating Fundamentals and Forced Air Heat 4
   - RH A228 Advanced Hydronic Heat Systems 4
   - RH A226 Commercial HVAC/R Systems 4
   - RH A229 HVAC/R Control Systems 3
   - RH A232 HVAC/R Sheet Metal 3
   - RH A122 Refrigeration and Air Conditioning 4
3. A total of 51 credits are required for the certificate.

ASSOCIATE OF APPLIED SCIENCE, REFRIGERATION AND HEATING TECHNOLOGY

ADMISSION REQUIREMENTS

Satisfy the Admission to Certificate and Associate Degree Programs Requirements in Chapter 7, “Academic Standards and Regulations.”

GENERAL UNIVERSITY REQUIREMENTS

1. Complete the General University Requirements for Associate Degrees located at the beginning of this chapter.
2. Complete the Associate of Applied Science General Degree Requirements (15 credits) located at the beginning of this chapter.

ACADEMIC PROGRESS

Earn a cumulative GPA of 2.0 (C) or higher in required R&H courses to receive the AAS.

MAJOR REQUIREMENTS

1. Complete the following required courses:
   - RH A101 Refrigeration & Air-Conditioning Fundamentals 4
   - RH A103 Technical Math for Industrial Trades 3
   - RH A105 Electrical Circuits for R&H I 3
   - RH A109 Principles of Thermodynamics 3
   - RH A122 Refrigeration and Air Conditioning 4
   - RH A126 Electrical Circuits for R&H II 3
   - RH A132 Troubleshooting for HVAC/R Systems 3
   - RH A201 Commercial and Ammonia Refrigeration 4
   - RH A203 HVAC/R Basic Controls 3
   - RH A209 Codes for HVAC/R 2
   - RH A211 Customer Relations and Job Etiquette 1
   - RH A225 Heating Fundamentals and Forced Air Heat 4
   - RH A226 Commercial HVAC/R Systems 4
   - RH A228 Advanced Hydronic Heat Systems 4
   - RH A229 HVAC/R Control Systems 3
   - RH A232 HVAC/R Sheet Metal 3

TECHNOLOGY

The Bachelor of Science degree in Technology offers qualified applicants the opportunity to expand upon their technical education. With proper academic advising, students may complete the requirements for an Associate of Applied Science degree while meeting the requirements for the baccalaureate degree. Depending on the applied science field, the baccalaureate electives, or the need for prerequisite work, the Bachelor of Science degree in Technology may take longer than two years beyond the Associate degree to complete. The Technology degree allows students to choose one of two areas of study. Contact an advisor for additional information. Government agencies, school districts, corporations, and business and industry provide a ready market for graduates of this program.

ASSOCIATE OF APPLIED SCIENCE, TECHNOLOGY

The Associate of Applied Science in Technology program is offered only through Kodiak College. Call (907) 486-1211 for further information.

The Associate of Applied Science in Technology Degree offers a choice of three areas of emphasis:
- Seafood Technology
- Space Maintenance
- Technology Education

This may include electricity, computer technology, refrigeration, welding, operation safety etc.

Applicants who qualify for the two year program at Kodiak College may wish to seek advanced degrees in Technology at UAA.

Students seeking a technical career in Seafood Processing, Space Launch Complex Operations or one of the core technologies, will be well prepared as they complete the technology program. A comprehensive technology curriculum with a strong applied math and science component is offered to ensure student readiness for rewarding careers. Technical skills will be developed in an assortment of technologies which include refrigeration and air conditioning, manufacturing, welding, auto-CADD, electricity, and instrumentation.

Students successfully completing the AAS degree should expect one of the following outcomes:
1. Qualified to assume one of the technical careers in the seafood processing industry involving quality control, refrigeration, or systems troubleshooting.
2. Demonstrated technical skills to join an aerospace team to complete receiving, staging and other prelaunch operations.
3. Developed technical skills to quality for one of the special technology careers in computers, manufacturing, and construction.

ADMISSION REQUIREMENTS

Satisfy the Admission to Certificate and Associate Degree Programs Requirements in Chapter 7, “Academic Standards and Regulations.”

FACULTY

Jack Cypher, Instructor, PJLC@matsu.alaska.edu
Dan Mielke, Assistant Professor, PFDMM@matsu.alaska.edu
GENERAL UNIVERSITY REQUIREMENTS
Complete the General University Requirements for Associate Degrees located at the beginning of this chapter.

Complete the Associate of Applied Science General Degree Requirements (15 credits) located at the beginning of this chapter. Students are encouraged to meet with their academic advisor to coordinate program completion. ENGL A212 is recommended.

MAJOR REQUIREMENTS
1. Complete the following required courses:
   - **General Requirements**
     - MATH A107 College Algebra 4
   - **Technology Core Requirements**
     - OSH A250 Hazardous Material Operation 3
     - OSH A101 Introduction to Occupational Safety and Health 3
     - ET A151 Basic Electricity 4
     - PETR/PRT A140 Industrial Process Instrumentation I 3
     - CIS A105 Introduction to Personal Computers and Application Software 3
     - AET A100 Fundamentals of Drafting 3
     - WELD A115 Basic Shielded Metal Arc Welding 2
     - EDD A298 Computer Aided Drafting 4
     - RH A101 Refrigeration and Air Conditioning Fundamentals 4
     - TECH A101 Introduction to Technological Principles 3
     - TECH A203 Introduction to Manufacturing Technologies 2
   2. Complete one of the Technology Emphasis areas:
      - **Space Maintenance (12 credits)**
        - TECH A210 Introduction to Space Systems Technologies 2
        - TECH A211 Space Vehicle Boosters, Satellites and Launch Facilities 3
        - TECH A212 Propulsion Systems 2
        - TECH A213 Quality Assurance and Launch Facility Management 2
        - TECH A295 Technical Internship (1-6) 3
      - **Seafood Technology (12 credits)**
        - TECH A262 Seafood Harvesting 3
        - TECH A263 Seafood Processing 3
        - TECH A264 Seafood Quality and Safety 3
        - TECH A295 Technical Internship (1-6) 3
      - **Technology Specialty (12 credits)**
        - Advanced Study in any core area with instructor approval for program course selections. Typical choices may include advanced studies in safety, electricity, drafting and/or fabrication.
        - TECH A295 Technical Internship (1-6) 3

3. A total of 61 credits is required for the degree.

BACHELOR OF SCIENCE, TECHNOLOGY
http://www.uaa.alaska.edu/ctc/programs/applied
University Center (UC), Suite 130, (907) 786-6423

ADMISSION REQUIREMENTS
Complete the Admission to Baccalaureate Programs Requirements in Chapter 7, “Academic Standards and Regulations”. Students must complete an Associate of Applied Science degree from an accredited institution recognized by UAA or have earned equivalent credits in a technical specialty which may be demonstrated in one of the following ways:
1. A 3-credit or equivalent course using one or more of the following applications: word processing, spreadsheets, databases, and communications, or an introductory course in data processing or microcomputers.
2. Work-related experiences verifying computer competency as approved by the faculty advisor.
3. Demonstrated computer competency as approved by the faculty advisor.

A. GRADUATION REQUIREMENTS
Students must complete the following graduation requirements:

B. GENERAL UNIVERSITY REQUIREMENTS
Complete the General University Requirements for All Baccalaureate Degrees listed at the beginning of this chapter.

C. GENERAL EDUCATION REQUIREMENTS
Complete the General Education Requirements for Baccalaureate Degrees listed at the beginning of this chapter.

D. MAJOR REQUIREMENTS
1. Students must complete an Associate of Applied Science degree from an accredited institution recognized by UAA or have earned equivalent credits in a technical specialty (45 credits minimum). 45
2. Complete the following BST core requirements:
   - ENGL A312 Advanced Technical Writing 3
   - MATH A108 Trigonometry 3
   - MATH A200 Calculus I 4
   - Natural Sciences or Quantitative Skills* 9

*Choose 9 credits of Natural Sciences or Quantitative Skills courses (in addition to the 10 credit Natural Sciences and Quantitative Skills General Education Requirements) for which prerequisites have been met and faculty advisor has approved.
3. Complete one of the following BST options:
   - **Business Option**
     - Note: Total credits needed for graduation may increase unless Business Option students take at least 24 credits of upper-division work in the fulfillment of General Education Requirements and Natural Sciences/Quantitative Skills Requirements.
     1. Complete the following required courses:
        - ACCT A201 Principles of Managerial Accounting 3
        - ACCT A202 Principles of Financial Accounting 3
        - ECON A201 Principles of Macroeconomics 3
        - ECON A202 Principles of Microeconomics 3
        - Upper-division BA courses for which prerequisites are met 9
        - TECH A433 Project Design, Implementation, and Control (3) and
        - TECH A443 Total Quality Leadership(3)
      or
      - Upper-division electives offered by the College of Business and Public Policy and approved by the faculty advisor (6)
2. A total of 125 credits is required for the Business Option, of which 42 credits must be upper-division.
Science and Technology Option

Note: Total credits needed for graduation may increase unless Science and Technology Option students take at least 15 credits of upper-division work in the fulfillment of General Education Requirements and Natural Sciences/Quantitative Skills Requirements.

1. Complete the following required courses:
   - TECH A402 Operational Safety 3
   - TECH A422 Senior Project 3
   - TECH A433 Project Design, Implementation and Control 3
   - TECH A443 Total Quality Leadership 3
   - VE A301 Principles of Technology 3

2. Complete a minimum of 9 credits from the following with faculty advisor approval:
   - AET A381 Geographic Information Systems: Technology and Applications (4)
   - ANTH A455 Medical Anthropology (3)
   - AT A332 Transport Aircraft Systems (3)
   - AT A362 Aerodynamics and Flight Performance (3)
   - AT A364 Avionics Systems (3)
   - AT A420 Air Transportation System (3)
   - AT A431 Aircraft Accident Investigation (3)
   - DH A320 Dental Health Services (2)
   - DH A395 Clinical Practicum IV for Dental Hygienists (1-3)
   - DH A420 Community Dental Health (3)
   - DH A495 Alternative Practicum for Dental Hygienists (2)
   - ET A340 Microcontroller Electronics (4)
   - ET A350 Federal Licensing Preparation (4)
   - HS/SOC A370 Medical Sociology (3)
   - HS A379 Health Data Analysis (4)
   - HS/SOC A433 Health Education: Theory and Practice (3)
   - TECH A310 NDE for Managers and Technicians (3)
   - TECH A415 Accident Investigation (4)
   - TECH A416 Safety Appraisal Methodology (3)
   - VE/TECH A412 Advanced Technical Experiences (1-9)*
   - VE/TECH A495 Technical Internship (3)*

*VE/TECH A412 is limited to 6 credits. The maximum number of total credits for VE/TECH A412 and VE/TECH A495 is 9.

3. A total of 122 credits is required for the Science and Technology Option, of which 42 credits must be upper-division.

FACULTY

Kelly Smith, Instructor, AFKJS@uaa.alaska.edu

TELECOMMUNICATIONS, ELECTRONICS AND COMPUTER TECHNOLOGY

http://www.uaa.alaska.edu/ctcprograms/applied
University Center (UC), Room 130, (907) 786-6423

The Telecommunications, Electronics and Computer Technology Department (TECT) provides entry-level skills and career education to meet the demand for well-trained technicians in the computer electronics, telecommunications and electronics industries. The TECT Department offers a nontranscripted departmental certificate of completion in CISCO Local Academy networking and two transcripted certificates in the specialized areas of Telecommunications and Electronics Systems (TES), and Computer and Networking Technology (CNT). Both certificates require 3 full-time semesters to complete. An Associate of Applied Science degree in Telecommunications, Electronics and Computer Technology can be earned by completing additional required technical and general education courses.

Graduates from the TECT program can be employed as skilled technical support workers in fields including communications, microchip manufacturing, and computer support and repair in private industry as well as municipal, state and federal agencies.

Both the Anchorage campus and the Matanuska-Susitna campus offer the TECT A.A.S. degree. The Anchorage campus offers the full program with the CNT and TES certificates and degree tracks, and the Matanuska-Susitna College offers the CNT certificate and degree track. Students should consult the TECT faculty for assistance with curriculum planning toward certifications such as A+, Net+, CCNA, and other industry-recognized standards.

NONTRANSCRIPTED DEPARTMENTAL CERTIFICATE OF COMPLETION, CISCO LOCAL ACADEMY

NETWORKING

1. Complete the following courses:
   - CNT A170 CISCO Academy Network Fundamentals 3
   - CNT A261 CISCO Router Fundamentals 3
   - CNT A270 CISCO Academy LAN Management 3
   - CNT A271 CISCO Academy WAN Management 3

2. A total of 12 credits is required for the nontranscripted departmental certificate of completion.

CERTIFICATE, COMPUTER AND NETWORKING TECHNOLOGY

1. Complete the following requirements:
   - CNT A160 PC Operating Systems 3
   - CNT A161 PC Architecture 1
   - CNT A162 PC Building, Upgrading, Configuring & Troubleshooting 2
   - CNT A165 Customer Service Fundamentals 1
   - CNT A170 CISCO Academy Network Fundamentals 3
   - CNT A180 PC Interfacing 3
   - CNT A181 PC Auxiliary Storage 1
   - CNT A182 PC Peripheral Devices 1
   - CNT A183 Local Area Networks 2
   - CNT A184 Introduction to TCP/IP 1
   - CNT A261 CISCO Router Fundamentals 3
   - CNT A262 Computer Technical Support 2
   - CNT A270 CISCO Academy LAN Management 3
   - CNT A271 CISCO Academy WAN Management 3
   - ET A165 Introduction to Digital Devices 1
2. Complete 3 credits from the following courses: 3
   ET A166  Technical Calculations & Applications 2
   ET A183  Data Communications 1

3. Complete 3 credits from the following courses: 3
   BA A101  Introduction to Management (3)
   BA A231  Fundamentals of Supervision (3)

4. Complete 3 credits from the following courses: 3
   PRFE A108  Basic College Writing (3)
   ENGL A109  Introduction to Writing in Academic Contexts (3)
   ENGL A111  Methods of Written Communication (3)
   (Note: English A111 is required for the AAS degree)

5. Complete 3 credits from the following courses: 3
   CIS A105  Introduction to Personal Computers and Application Software (3)
   CIOS A135A  Spreadsheets I: MS Excel (1)
   CIOS A120A  Bookkeeping Software Applications I: QuickBooks (1)
   CNT A140A  Databases I: MS Access (1)
   CIOS A113  Operating Systems: MS Windows (1)
   CIOS A150A  Presentations I: MS PowerPoint (1)
   CIOS A150A  Word Processing I: MS Word (1)
   CIOS A130B  Word Processing I: WordPerfect (1)
   CIOS A146  Internet Concepts and Applications I (1)
   CNT A101  Microsoft Office 2000 Fundamentals (2)
   CNT A190  Selected Topics in MOUS Certifications (1)

6. A total of 45 credits is required for the certificate.

**CERTIFICATE, TELECOMMUNICATIONS, ELECTRONICS AND COMPUTER TECHNOLOGY**

**MAJOR REQUIREMENTS**

1. Complete one of the following tracks:

   **Computer and Networking Track (50 credits)**
   
   A. Complete the following:
      
      - CNT A160  PC Operating Systems 3
      - CNT A161  PC Architecture 1
      - CNT A162  PC Building, Upgrading, Configuring & Troubleshooting 2
      - CNT A165  Customer Service Fundamentals 1
      - CNT A170  CISCO Academy Network Fundamentals 3
      - CNT A180  PC Interfacing 3
      - CNT A181  PC Auxiliary Storage 1
      - CNT A182  PC Peripheral Devices 1
      - CNT A183  Local Area Networks 2
      - CNT A184  Introduction to TCP/IP 1
      - CNT A261  CISCO Router Fundamentals 3
      - CNT A262  Computer Technical Support 2
      - CNT A270  CISCO Academy LAN Management 3
      - CNT A271  CISCO Academy WAN Management 3
      - CNT A280  Server Operating Systems 3
      - CNT A281  Certification Preparation 2
      - ET A165  Introduction to Digital Devices 1
      - ET A166  Technical Calculations & Applications 2
      - ET A183  Data Communications 1
      - CNT/ET A276  Independent Project (3)
      - CNT/ET A282  Work Study (3)

   B. Complete 3 credits from the following:
      
      - CNT A160  PC Operating Systems 3
      - CNT A161  PC Architecture 1
      - CNT A162  PC Building, Upgrading, Configuring & Troubleshooting 2
      - CNT A165  Customer Service Fundamentals 1
      - CNT A170  CISCO Academy Network Fundamentals 3
      - CNT A180  PC Interfacing 3
      - CNT A181  PC Auxiliary Storage 1
      - CNT A182  PC Peripheral Devices 1
      - CNT A183  Local Area Networks 2
      - CNT A184  Introduction to TCP/IP 1
      - CNT A261  CISCO Router Fundamentals 3
      - CNT A262  Computer Technical Support 2
      - CNT A270  CISCO Academy LAN Management 3
      - CNT A271  CISCO Academy WAN Management 3
      - CNT A280  Server Operating Systems 3
      - CNT A281  Certification Preparation 2
      - ET A165  Introduction to Digital Devices 1
      - ET A166  Technical Calculations & Applications 2
      - ET A183  Data Communications 1
      - CNT/ET A276  Independent Project (3)
      - CNT/ET A282  Work Study (3)

   C. Complete 3 credits from the following:
      
      - CNT A160  PC Operating Systems 3
      - CNT A161  PC Architecture 1
      - CNT A162  PC Building, Upgrading, Configuring & Troubleshooting 2
      - CNT A165  Customer Service Fundamentals 1
      - CNT A170  CISCO Academy Network Fundamentals 3
      - CNT A180  PC Interfacing 3
      - CNT A181  PC Auxiliary Storage 1
      - CNT A182  PC Peripheral Devices 1
      - CNT A183  Local Area Networks 2
      - CNT A184  Introduction to TCP/IP 1
      - CNT A261  CISCO Router Fundamentals 3
      - CNT A262  Computer Technical Support 2
      - CNT A270  CISCO Academy LAN Management 3
      - CNT A271  CISCO Academy WAN Management 3
      - CNT A280  Server Operating Systems 3
      - CNT A281  Certification Preparation 2
      - ET A165  Introduction to Digital Devices 1
      - ET A166  Technical Calculations & Applications 2
      - ET A183  Data Communications 1
      - CNT/ET A276  Independent Project (3)
      - CNT/ET A282  Work Study (3)

   D. Complete 3 credits from the following courses:
      
      - CIS A105  Introduction to Personal Computers and Application Software (3)
      - CIOS A135A  Spreadsheets I: MS Excel (1)
      - CIOS A120A  Bookkeeping Software Applications I: QuickBooks (1)
      - CIOS A140A  Databases I: MS Access (1)
      - CIOS A113  Operating Systems: MS Windows (1)
      - CIOS A150A  Presentations I: MS PowerPoint (1)
      - CIOS A130A  Word Processing I: MS Word (1)
      - CIOS A130B  Word Processing I: WordPerfect (1)
      - CIOS A146  Internet Concepts and Applications I (1)

   E. Complete 3 credits from the following courses:
      
      - CS A100  Introduction to Computers (3)
      - CS A109  Computer Programming (Languages Vary) (3)

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**ASSOCIATE OF APPLIED SCIENCE, TELECOMMUNICATIONS, ELECTRONICS AND COMPUTER TECHNOLOGY**

**ADMISSION REQUIREMENTS**

Satisfy the Admission to Certificate and Associate Degree Programs Requirements in Chapter 7, “Academic Standards and Regulations.”

**GENERAL UNIVERSITY REQUIREMENTS**

1. Complete the General University Requirements for Associate Degrees listed at the beginning of this chapter.

2. Complete the Associate of Applied Science General Degree Requirements (15 credits) listed at the beginning of this chapter.
Telecommunications and Electronics Systems Track (45 credits)

A. Complete the following requirements:

- ET A160  D.C. Electrical Systems 3
- ET A161  D.C. Lab 1
- ET A162  A.C. Electrical Systems 3
- ET A163  A.C. Lab 1
- ET A165  Introduction to Digital Devices 1
- ET A166  Technical Calculations & Applications 2
- ET A180  Semiconductor Devices 4
- ET A181  Advanced Digital Devices 2
- ET A182  Applied ICs 2
- ET A183  Data Communications 1
- ET A184  Telecommunications 2
- ET A185  Transmitters and Receivers 3
- ET A260  Instrumentation & Control Processes 3
- ET A261  Electronic Systems Troubleshooting 2
- ET A262  Advanced Communications 3
- ET A280  Programmable Logic Controllers 3
- CNT A163  Introduction to Networking 1
- CNT A164  Network Cabling 1
- CNT A165  Customer Service Fundamentals 1

B. Complete 3 credits from the following:

- CNT/ET A276  Independent Project (3)
- CNT/ET A282  Work Study (3)

C. Complete 3 credits from the following:

- CIS A105  Introduction to Personal Computers and Application Software (3)
- CIS A135A  Spreadsheets I: MS Excel (1)
- CIS A120A  Bookkeeping Software Applications I: Quickbooks (1)
- CIS A140A  Databases I: MS Access (1)
- CIS A113  Operating Systems: MS Windows (1)
- CIS A150A  Presentations I: MS PowerPoint (1)
- CIS A130A  Word Processing I: MS Word (1)
- CIS A130B  Word Processing I: WordPerfect (1)
- CIS A146  Internet Concepts and Applications I (1)
- CNT A101  Microsoft Office 2000 Fundamentals (2)
- CNT A190  Selected Topics in MOUS Certifications (1)

2. A total of 60 or 65 credits is required for the degree.

FACULTY

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Ray Noble, Associate Professor, afron@uaa.alaska.edu
John Rogers, Associate Professor, pjjr@matsu.alaska.edu
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WELDING & NONDESTRUCTIVE TESTING TECHNOLOGY

http://www.uaa.alaska.edu/ctc/programs/applied
Gordon Hartlieb Hall (GHH), Room 111, (907) 786-6478

The Welding and Nondestructive Testing Technology program prepares students for employment in welding and/or nondestructive examination as entry-level technicians. A variety of career opportunities are available to welding technicians and nondestructive examination technicians. Both of these fields are utilized in construction, manufacturing and transportation industries throughout the world.

The Welding and Nondestructive Testing (NDT) program offers an Associate of Applied Science (AAS) degree in Welding and Nondestructive Testing Technology, and two separate certificates in either Industrial Welding Technology or Nondestructive Testing Technology. Welding and NDT are combined in the AAS degree. Kenai Peninsula College also offers a Certificate in Welding Technology as described in this catalog section.

Industrial welding technician students develop manual skills in four main welding processes and three thermal cutting processes, as well as gain a wide range of technical knowledge in welding application, procedure/welder qualification, reading plans and specifications, and applied metallurgy. Welder qualification tests are administered as prescribed in AWS D1.1, API Standard 1104, or ASME IX welding codes.

Nondestructive Testing technician students examine metallic components or weldments to locate and evaluate discontinuities by learning to apply liquid penetrant (PT), magnetic particle (MT), eddy current (ET), radiographic (RT) and ultrasonic (UT) test methods. Student qualification in each NDT method is based on general, specific and practical examinations administered as prescribed in the American Society for Nondestructive Testing (ASNT) Recommended Practice No. SNT-TC-1A.

CERTIFICATES

ADMISSION REQUIREMENTS
Satisfy the Admission to Certificate and Associate Degree Programs Requirements in Chapter 7, “Academic Standards and Regulations.”

GRADUATION REQUIREMENTS
Complete the General University Requirements for Certificates at the beginning of this chapter. Students must complete certificate course requirements with a minimum cumulative GPA of 2.0. Students must pass three (3) separate all-position welder qualification tests for a certificate in Welding Technology. Students must pass two (2) NDT method qualification tests for a certificate in Nondestructive Testing Technology. Qualification tests are administered near the end of each applicable course.

CERTIFICATE, INDUSTRIAL WELDING TECHNOLOGY

CERTIFICATE REQUIREMENTS

1. Complete the following required courses (24 credits):

- WELD A112  Shielded Metal Arc Welding (SMAW) 4
- WELD A157  Technical Drawings for Welders 3
- WELD A161  Gas Metal Arc Welding (GMAW) 4
- WELD A162  Flux Cored Arc Welding (FCAW) 4
- WELD A174  Gas Tungsten Arc Welding (GTAW) 4
- WELD A287  Welding Metallurgy Applications 5
2. Complete one of the following courses (2 - 4 credits):
   - WELD A117 Basic Pipefitting (4)
   - WELD A118 Welding Fabrication and Manufacturing (4)
   - WELD A190 Selected Topics in Welding Technology (2-4)
   - TECH A295 Technical Internship (advisor approved) (2-4)

3. Complete one of the following courses (4 credits):
   - WELD A114 Welding of High Strength Steels (4)
   - WELD A121 Pipe Welding Vertical-Down (SMAW) (4)
   - WELD A122 Pipe Welding Vertical-Up (SMAW) (4)

4. Pass three (3) separate all-position welder qualification tests.


CERTIFICATE, NONDESTRUCTIVE TESTING TECHNOLOGY

CERTIFICATE REQUIREMENTS

1. Complete one of the following welding courses:
   - WELD A112 Shielded Metal Arc Welding (SMAW) (4)
   - WELD A161 Gas Metal Arc Welding (GMAW) (4)
   - WELD A174 Tungsten Arc Welding (GTAW) (4)

2. Complete the following required courses:
   - ENGL A111 Methods of Written Communication 3
   - MATH A105 Intermediate Algebra 3
   - WELD A261 Ultrasonic Testing 4
   - WELD A262 General Nondestructive Testing 3
   - WELD A263 Radiographic Testing Safety 2
   - WELD A264 Radiographic Testing 3
   - WELD A281 Welding Inspection and Code Review 4
   - WELD A287 Welding Metallurgy Applications 5

3. Complete one of the following courses:
   - WELD A290 Selected Topics in Nondestructive Testing (1-4)
   - TECH A295 Technical Internship (advisor approved) (1-4)

4. Pass two (2) separate NDT method qualification tests.


CERTIFICATE, WELDING TECHNOLOGY

This certificate is offered only at Kenai Peninsula College.

The one-year certificate in welding technology provides a student with specific training for structural and pipe welding certification. Students gain a well-rounded education in the use of the latest welding technology, blueprint reading, layout, and fabrication. Graduates of this program will be prepared for employment as structural or pipe welders, and will have a solid welding background for many mechanical trades.

Note: Experienced welders may have the option of bypassing the first semester courses by completing written and practical examinations on first semester work. This will allow experienced welders to enter the program at an appropriate level.

1. Complete the following requirements:
   - MATH A101 Technical Mathematics 3
   - WELD A102 Gas Welding 2
   - WELD A103 Arc Welding 4
   - WELD A104 Arc Welding: Low-Hydrogen Electrodes 4
   - WELD A105 Pipe Welding 4
   - WELD A106 Pipe Certification 4
   - PETR A155 Blueprint Reading 3

2. Complete one of the following (4 credits):
   - WELD A108 Wire Welding 4
   - WELD A109 TIG Welding 4

3. All students must pass structural and pipe certification tests before receiving a certificate in Welding Technology.

4. A total of 28 credits is required for the certificate.

ASSOCIATE OF APPLIED SCIENCE, WELDING AND NONDESTRUCTIVE TESTING TECHNOLOGY

ADMISSION REQUIREMENTS

Satisfy the Admission to Certificate and Associate Degree Programs Requirements in Chapter 7, "Academic Standards and Regulations."

GENERAL UNIVERSITY REQUIREMENTS

1. Complete the General University Requirements for Associate Degrees located at the beginning of this chapter.

2. Complete the Associate of Applied Science General Degree Requirements (15 credits):
   - COMM A111, or A235, or A237, or A241 3
   - ENGL A111 Methods of Written Communication 3
   - ENGL A212 Technical Writing 3
   - MATH A105 Intermediate Algebra 3
   - One General Requirement 3
   - Choose Humanities, Math, Natural Science or Social Science. Any English course used to satisfy the Humanities general requirement must be different from the written communications requirement and have a course number higher than ENGL 111.
   - (See Associate of Applied Science degree course classification list earlier in this chapter).

MAJOR REQUIREMENTS

1. Complete the following required courses:
   - WELD A112 Shielded Metal Arc Welding (SMAW) 4
   - WELD A157 Technical Drawing for Welders 3
   - WELD A161 Gas Metal Arc Welding (GMAW) 4
   - WELD A162 Flux Cored Welding (FCAW) 4
   - WELD A174 Tungsten Arc Welding (GTAW) 4
   - WELD A261 Ultrasonic Testing 4
   - WELD A262 General Nondestructive Testing 3
   - WELD A263 Radiographic Testing Safety 2
   - WELD A264 Radiographic Testing 3
   - WELD A281 Welding Inspection and Code Review 4
   - WELD A287 Welding Metallurgy Applications 5
   - VE A301 Principles of Technology 3

2. Complete at least one of the following courses:
   - WELD A117 Basic Pipefitting (4)
   - WELD A118 Welding Fabrication and Manufacturing (4)
   - WELD A190 Selected Topics in Welding Technology (3)
   - WELD A290 Selected Topics in Nondestructive Testing (3)
   - TECH A295 Technical Internship (advisor approved) (3)

3. Pass three (3) separate all-position welder qualification tests.

4. Pass two (2) separate NDT method qualification tests.

5. A total of 61-62 credits is required for the degree.

FACULTY

Robert McCauley, Associate Professor, AFRDM@uaa.alaska.edu
Eli van Ringelenstein, Term Instructor, AFEVR@uaa.alaska.edu
SCHOOL OF ENGINEERING

Engineering embraces the wide range of cultural and technical subjects related to the planning, design and manufacture, or construction of objects necessary for civilization. An engineer is an innovator, a builder and a problem solver. Engineers turn scientific knowledge into useful goods and services and are responsible to society for their engineering design decisions. They are interested in creating and working with people often as team members in positions of leadership. Engineers are concerned about people and ways to provide society with improved living standards.

The School of Engineering offers areas of study at the undergraduate level:

- A 4-year program leading to a Bachelor of Science in Civil Engineering;
- A 4-year program leading to a Bachelor of Science in Engineering;
- A 4-year program leading to a Bachelor of Science in Geomatics;
- A 2-year program leading to an Associate of Applied Science in Geomatics;
- The first two years of a program in Electrical Engineering; and
- The first two years of a program in Mechanical Engineering.

CIVIL ENGINEERING

Civil Engineering deals with environmental control; bridges, buildings and harbor facilities; water resource development and waste disposal; dams, water power, irrigation works and drainage; air, water, highway and railway transportation; construction and management; surveying; city management and developmental planning.

ENGINEERING

The UAA School of Engineering offers a Bachelor of Science in Engineering (BSE) degree with specializations in Computer Systems Engineering, Electrical Engineering, or Mechanical Engineering. Graduates with a BSE degree have a broad range of engineering skills that is often necessary when serving the infrastructure needs of remote rural areas typical of many Alaskan communities. The program emphasizes fundamental engineering principles as a basis for interdisciplinary design, teamwork, and for lifelong learning. Graduates are in a position to take advantage of a wide variety of professional opportunities and are well prepared for an engineering career in a technologically changing world.

GEOMATICS

Geomatics embraces the traditional disciplines of land surveying, mapping, geodesy, photogrammetry, and hydrography, together with the newer disciplines of remote sensing, digital photogrammetry, and spatial or geographic information systems (GIS). Geomaticians help design, map and manage the natural and the man-made resources of the earth. Their skills and efforts are important in project development and environmental protection. They gather, analyze, and manipulate data, map results and help design new developments. The disciplines used in Geomatics are based on advancing technologies and use an integrated approach to the acquisition, analysis, storage, distribution, management, and application of spatially-referenced data.

MINOR DEGREES IN ENGINEERING

The School of Engineering offers minor degrees to meet two sets of student needs. The first is a minor degree in General Engineering which is for students that are majoring in a non-engineering baccalaureate degree. The second is an Engineering Specialty minor program which is for students majoring in an engineering baccalaureate degree and, therefore, have completed much of the coursework in the Bachelor of Science in Engineering (BSE) or Civil Engineering (CE) program. Engineering Specialty minor degrees are in civil engineering, computer systems engineering, electrical engineering, or mechanical engineering.

CIVIL ENGINEERING

http://www.engr.uaa.alaska.edu/soe
Engineering Building (ENGR), Room 201, (907) 786-1900

Civil Engineering deals with environmental control; bridges, buildings and harbor facilities; water resource development and waste disposal; dams, water power, irrigation works and drainage; air, water, highway and railway transportation; construction and management; surveying; city management and developmental planning.

Engineering students are introduced to the basic principles of mathematics, chemistry and physics during their first two years of study. The third year of study is largely devoted to courses in the engineering sciences, extensions of the basic sciences forming the foundation for engineering analysis and design. In the senior year, students specialize within their disciplines and draw upon previous learning to focus their studies on creative design and analysis through projects. Throughout the four-year engineering program students take courses in communication, humanities, social sciences and fine arts to improve skills in written, oral and graphic communications, and to become aware of social responsibilities and roles in modern society. The Civil Engineering program emphasizes northern region design considerations and principles. Thus, graduates from the Civil Engineering program receive training appropriate for an engineering career in Alaska and other cold regions of the world.

BACHELOR OF SCIENCE, CIVIL ENGINEERING

The Department of Civil Engineering offers an undergraduate curriculum leading to the four-year Bachelor of Science Degree in Civil Engineering. The first two years of the program generally apply to most other fields of engineering.

ACREDITATION

The Bachelor of Science degree program in Civil Engineering at UAA is accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET).

PROGRAM OBJECTIVES AND EXPECTED OUTCOMES

The curriculum of the UAA civil engineering program is designed to produce graduates who, in their first five years after graduation:
1. Are able to solve problems in the civil engineering disciplines of transportation, geotechnical, hydraulic, environmental, and structural engineering;
2. Are able to apply the basic principles related to project delivery;
3. Have sufficient technical competence to obtain employment as an entry level engineer and to be able to progress professionally within the discipline and are prepared for advanced study;
4. Are able to demonstrate their fundamental understanding of the issues related to civil engineering practice in cold regions;
5. Are able to communicate their ideas;
6. Are able to work within a team environment; and
7. Can demonstrate an understanding of the need for continued professional development throughout their careers by participating in continuing education activity.

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In keeping with the objectives, it is expected that graduates of the UAA Civil Engineering program will have:

1. An ability to apply knowledge of mathematics through differential equations, probability and statistics, calculus-based physics, and general chemistry;
2. An ability to apply knowledge in a minimum of four (4) recognized major civil engineering areas with emphasis on cold region applications;
3. An ability to design and conduct experiments, as well as to analyze and interpret data in more than one of the recognized major civil engineering areas;
4. An ability to design a civil engineering system, component, or process to meet desired needs including constructibility and operability;
5. An ability to function on civil engineering multi-disciplinary teams;
6. An ability to identify, formulate, and solve engineering problems;
7. An understanding of professional, legal, and ethical responsibility;
8. An ability to communicate effectively using written, verbal, visual and graphic skills;
9. The broad education necessary to understand the impact of engineering solutions in a global and societal context;
10. A recognition of the need for, and an ability to engage in life-long learning;
11. A knowledge of contemporary issues in professional practice; and
12. An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice and preparation for advanced study.

HONORS IN CIVIL ENGINEERING

Undergraduate civil engineering students may be recognized for exceptional performance by earning Departmental Honors in Civil Engineering. The award will be noted on their permanent university transcript. In order to receive honors in civil engineering, a student must meet each of the following requirements:

1. Complete all requirements for a BS degree in Civil Engineering. A minimum of 30 credits applicable to the civil engineering degree must be completed at UAA.
2. Be an active member for at least one year of both a national and an on-campus student chapter of a professional engineering society that addresses issues relevant to the civil engineering profession.
3. Have a GPA of 3.30 or higher in courses applicable to the BS degree in Civil Engineering.
4. Gain approval for and complete a design/research project prior to applying for graduation. An oral presentation of the project results to an appropriate audience will be required. The project proposal and final written report must be approved by the student's academic advisor and the chair of civil engineering.
5. Take and pass the Fundamentals of Engineering Exam in the fall semester of the senior year.
6. Document a minimum of 8 weeks work experience in an engineering or engineering related position.

ADMISSION REQUIREMENTS

Admission to the civil engineering program is to one of three levels: Engineering Preparatory, Engineering Fundamentals, or Civil Engineering Professional. Students admitted to any of the three levels are considered to be degree seeking engineering students. Engineering Preparatory and Engineering Fundamentals students are classified within the university system as “pre-majors.” Civil Engineering Professional students are classified within the university system as full “majors.”

Engineering Preparatory

Applicants for admission who have completed only the Admission to Baccalaureate Programs Requirements in Chapter 7, “Academic Standards and Regulations,” are admitted as pre-majors to the civil engineering program at the Engineering Preparatory level.

Engineering Fundamentals

Applicants for admission who have completed the following list of high school courses (or their university equivalents) with grades of “C” or better in addition to the Admission to Baccalaureate Programs Requirements in Chapter 7, “Academic Standards and Regulations,” will be admitted as pre-majors to the civil engineering program at the Engineering Fundamentals level:

<table>
<thead>
<tr>
<th>Subject</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>3 years</td>
</tr>
<tr>
<td>Algebra</td>
<td>2 years</td>
</tr>
<tr>
<td>Trigonometry</td>
<td>1/2 year</td>
</tr>
<tr>
<td>Physics</td>
<td>1 year</td>
</tr>
<tr>
<td>Chemistry</td>
<td>1 year</td>
</tr>
</tbody>
</table>

Civil Engineering Professional

Transfer, change of major, and returning students who are applying for admission to the civil engineering program and have completed all of the Engineering Fundamentals Requirements listed under the civil engineering Graduation Requirements section with grades of “C” or better will be admitted to the civil engineering program at the Civil Engineering Professional level.

ADVANCEMENT

Engineering Preparatory to Engineering Fundamentals

Engineering Preparatory Students must work with their assigned advisor to develop a course plan to make up the high school course requirements for advancement to the Engineering Fundamentals level. Once the Engineering Preparatory course work outlined in the student's course plan is completed students must meet with their advisor to apply for advancement to Engineering Fundamentals status.

Engineering Fundamentals to Civil Engineering Professional

Engineering Fundamentals students who have completed, or are within a semester of completing, the Engineering Fundamentals requirements must meet with their advisor to apply for advancement to the Civil Engineering Professional status. Applicants who have successfully completed all the Engineering Fundamental requirements will be advanced to the Civil Engineering Professional (full major) status. Applicants who are within nine credits of completing the Engineering Fundamentals requirements will be admitted conditionally to the Civil Engineering Professional (full major) status. Students who fail to meet the conditions for advancement will be removed from the civil engineering program.

All applications for advancement within the civil engineering program must be submitted to the civil engineering department at least thirty days prior to beginning any CE or ES courses listed as a major requirement for the level for which they are applying.

ADVISING

All undergraduate students are encouraged to meet with their academic advisor each semester for the purpose of reviewing their academic progress and planning future courses. All civil engineering students are required to meet with their advisors to be advanced within the program and to apply for graduation. It is particularly important for students to meet with their advisor whenever academic difficulties arise.

ACADEMIC PROGRESS

Any given civil engineering (CE) or engineering science (ES) course may only be taken when all prerequisites for the courses are met with a grade of C or higher.
A student who is unable to earn a grade of “C” or better in a CE or ES course during his/her initial enrollment may attempt to earn a satisfactory grade one additional time, on a space-available basis. Failure to earn a grade of “C” or better on the second attempt results in removal from the civil engineering program.

A student who has a semester GPA in engineering courses below 2.0 will be placed on academic warning by the School of Engineering. A student on academic warning who receives a semester GPA in Engineering courses of at least 2.0, will be removed from academic warning status by the School. Otherwise, he/she will be removed from the civil engineering program and will not be permitted to attend CE and ES courses.

**GRADUATION REQUIREMENTS**

In order to receive the Bachelor of Science degree in Civil Engineering, students must complete the following graduation requirements:

**A. GENERAL UNIVERSITY REQUIREMENTS**

Complete the General University Requirements for All Baccalaureate Degrees listed at the beginning of this chapter.

**B. GENERAL EDUCATION REQUIREMENTS**

Complete the General Education Requirements for Baccalaureate Degrees listed at the beginning of this chapter with the additional requirement that the following criteria are met within the courses taken to meet the Social Science, Humanities, and Fine Arts GER requirement:

1. Six credits are from courses that are at the 200-level or above.
2. Three credits are from courses that are at the 200-level or above and six credits are from a sequence of courses at the 100-level. For example, HIST 101 and HIST 102 is considered to be six credit course sequence.
3. Twelve credits are from two course sequences of six credits each at the 100-level.

**C. ENGINEERING FUNDAMENTALS REQUIREMENTS**

Complete these required courses with a “C” or higher:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM A105</td>
<td>General Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM A105L</td>
<td>General Chemistry I Lab</td>
<td>1</td>
</tr>
<tr>
<td>CHEM A106</td>
<td>General Chemistry II</td>
<td>3</td>
</tr>
<tr>
<td>CHEM A106L</td>
<td>General Chemistry II Lab</td>
<td>1</td>
</tr>
<tr>
<td>COMM A111, A235, A237, or A241</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>ENGL A111</td>
<td>Methods of Written Communications</td>
<td>3</td>
</tr>
<tr>
<td>ENGL A212</td>
<td>Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>ES A103</td>
<td>Engineering Graphics</td>
<td>3</td>
</tr>
<tr>
<td>ES A111</td>
<td>Engineering Science</td>
<td>3</td>
</tr>
<tr>
<td>ES A201</td>
<td>Computer Techniques</td>
<td>3</td>
</tr>
<tr>
<td>ES A209</td>
<td>Engineering Statics</td>
<td>3</td>
</tr>
<tr>
<td>ES A210</td>
<td>Engineering Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>ES A302</td>
<td>Engineering Data Analysis</td>
<td>3</td>
</tr>
<tr>
<td>GEO A155</td>
<td>Fundamentals of Surveying</td>
<td>3</td>
</tr>
<tr>
<td>MATH A200</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>MATH A201</td>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>MATH A202</td>
<td>Calculus III</td>
<td>4</td>
</tr>
<tr>
<td>MATH A302</td>
<td>Ordinary Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>PHYS A211</td>
<td>General Physics I</td>
<td>3</td>
</tr>
<tr>
<td>PHYS A211L</td>
<td>General Physics I Lab</td>
<td>1</td>
</tr>
<tr>
<td>PHYS A212</td>
<td>General Physics II</td>
<td>3</td>
</tr>
<tr>
<td>PHYS A212L</td>
<td>General Physics II Lab</td>
<td>1</td>
</tr>
</tbody>
</table>

**D. CIVIL ENGINEERING PROFESSIONAL REQUIREMENTS**

1. Satisfactorily complete these required courses with a GPA of 2.0. Courses with an asterisk (*) are prerequisite courses and must be completed with a grade of “C” or better:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE A334*</td>
<td>Properties of Materials</td>
<td>3</td>
</tr>
<tr>
<td>CE A344</td>
<td>Water Resources Engineering</td>
<td>3</td>
</tr>
<tr>
<td>CE A402</td>
<td>Transportation Engineering</td>
<td>3</td>
</tr>
<tr>
<td>CE A422</td>
<td>Foundation Engineering</td>
<td>3</td>
</tr>
<tr>
<td>CE A431*</td>
<td>Structural Analysis</td>
<td>4</td>
</tr>
<tr>
<td>CE A432</td>
<td>Steel Design</td>
<td>3</td>
</tr>
<tr>
<td>CE A433</td>
<td>Reinforced Concrete Design</td>
<td>3</td>
</tr>
<tr>
<td>CE A435*</td>
<td>Soil Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>CE A438</td>
<td>Design of Engineering Systems</td>
<td>3</td>
</tr>
<tr>
<td>CE A441</td>
<td>Sanitary Engineering</td>
<td>3</td>
</tr>
<tr>
<td>ES A309</td>
<td>Elements of Electrical Engineering</td>
<td>3</td>
</tr>
<tr>
<td>ES A331*</td>
<td>Mechanics of Materials</td>
<td>3</td>
</tr>
<tr>
<td>ES A341*</td>
<td>Fluid Mechanics</td>
<td>4</td>
</tr>
<tr>
<td>ES A346</td>
<td>Basic Thermodynamics</td>
<td>3</td>
</tr>
<tr>
<td>ESM A450</td>
<td>Economic Analysis and Operations</td>
<td>3</td>
</tr>
</tbody>
</table>

2. A Natural Science elective (minimum 3 credits) must be taken in addition to the 7 credit Natural Sciences General Education Requirement and may be selected from the following list:

- BIOL A115, Fundamentals of Biology I (4)
- BIOL A271, Principles of Ecology (4)
- CHEM A450, Environmental Chemistry (3)
- GEOL A111, Physical Geology (4)
- GEOL A115, Environmental Geology (3)
- PHYS A303, Modern Physics (3)

3. Six (6) credits of technical elective courses are required and may be chosen from the courses listed below. Other engineering courses at the 400 level or 600 level may be used to meet this requirement upon the prior approval through the academic petition process. Note that CE A603 (Arctic Engineering) is not petitionable as an undergraduate Civil Engineering technical elective. Graduate courses may not be applied to both a baccalaureate and masters degree.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE A404</td>
<td>Highway Engineering (4)</td>
<td></td>
</tr>
<tr>
<td>CE A434</td>
<td>Timber Design (3)</td>
<td></td>
</tr>
<tr>
<td>CE A442</td>
<td>Environment System Design (3)</td>
<td></td>
</tr>
<tr>
<td>CE A631</td>
<td>Structural Finite Elements (3)</td>
<td></td>
</tr>
<tr>
<td>CE A636</td>
<td>Multi-Story Building Structural Design (3)</td>
<td>3</td>
</tr>
<tr>
<td>CE A675</td>
<td>Design of Ports and Harbors (3)</td>
<td>3</td>
</tr>
<tr>
<td>CE A681</td>
<td>Frozen Ground Engineering (3)</td>
<td></td>
</tr>
<tr>
<td>CE A684</td>
<td>Arctic Utility Distribution (3)</td>
<td>3</td>
</tr>
<tr>
<td>EQE A601</td>
<td>Aquatic Process Chemistry (3)</td>
<td></td>
</tr>
<tr>
<td>EQE A602</td>
<td>Water Quality Management (3)</td>
<td></td>
</tr>
<tr>
<td>EQE A605</td>
<td>Chemical and Physical Water and Wastewater Treatment Processes (3)</td>
<td>3</td>
</tr>
<tr>
<td>EQE A606</td>
<td>Biological Treatment Processes (3)</td>
<td>3</td>
</tr>
<tr>
<td>EQE A613</td>
<td>Remediation (3)</td>
<td></td>
</tr>
<tr>
<td>ESM A401</td>
<td>Cost Estimating (3)</td>
<td></td>
</tr>
<tr>
<td>GEO A456</td>
<td>Geomastics and Civil Design (3)</td>
<td>3</td>
</tr>
</tbody>
</table>

4. A total of 132 credits is required for the degree, of which 42 credits must be upper-division.

5. All Civil Engineering students are encouraged to take the Fundamentals of Engineering Examination in their senior year as a preliminary step toward professional registration.

**FACULTY**

Craig Woolard, Professor/Chair, AFCRW@uaa.alaska.edu
Grant Baker, Associate Professor, AFGCB@uaa.alaska.edu
He Liu, Associate Professor, AFHL@uaa.alaska.edu
John Olofsson, Professor, AFJAO@uaa.alaska.edu
T. Bart Quimby, Professor, AFTBQ@uaa.alaska.edu
Herbert Schroeder, Professor, AFHPS@uaa.alaska.edu
William Schnabel, Assistant Professor, AFWES@uaa.alaska.edu
Orson Smith, Professor, AFOPS@uaa.alaska.edu
Zhaozhi (Joey) Yang, Assistant Professor, AFZY@uaa.alaska.edu
Hannele Zubeck, Associate Professor, AFHKZ@uaa.alaska.edu
ELECTRICAL ENGINEERING

http://www.engr.uaa.alaska.edu/soe
Engineering Building (ENGR), Room 201, (907) 786-1900

Electrical engineering encompasses the areas of computer applications and design, electrical power transmission and distribution, telecommunications, and electronics. The electrical engineer designs and oversees the construction, installation and maintenance of electrical systems providing light, heat and power. Engineers design the communications of telephone, radio and television as well as the transistor and integrated circuits used in these systems. People trained in computer engineering automate businesses, factories, pipelines and refineries; and design control systems and computers which guide trains, planes, and space vehicles. Even the test devices and tools of investigation - in medicine, in physics, in geology and in other sciences - are today largely electronic.

Because electrical engineering is based on mathematics, chemistry, and physics, students are introduced to the basic principles in these areas during their first two years of study. They are also exposed to a variety of introductory courses in engineering science and to courses in communication, the humanities, social sciences and/or fine arts.

TWO-YEAR PROGRAM ELECTRICAL ENGINEERING

The School of Engineering offers a program of studies that allow the completion of the first two years of a 4-year program leading to the Bachelor of Science degree in Electrical Engineering. The program is coordinated with the University of Alaska Fairbanks (UAF) College of Science, Engineering and Mathematics. It allows students to transfer into the Electrical Engineering program at UAF as third year students with no loss of credit.

ADMISSIONS REQUIREMENTS

Complete the Admission to Baccalaureate Programs Requirements in Chapter 7, “Academic Standards and Regulations.” In addition, students entering the undergraduate engineering program must have completed the following high school courses with grades of “C” or better:

<table>
<thead>
<tr>
<th>Subject</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>3 years</td>
</tr>
<tr>
<td>Algebra</td>
<td>2 years</td>
</tr>
<tr>
<td>Trigonometry</td>
<td>1/2 year</td>
</tr>
<tr>
<td>Physics</td>
<td>1 year</td>
</tr>
<tr>
<td>Chemistry</td>
<td>1 year</td>
</tr>
</tbody>
</table>

It is recommended that students graduating from high school without satisfactorily completing the courses noted above enroll in the necessary courses to make up deficiencies during the summer session. Only those students admitted to the undergraduate engineering program may take courses offered by the School of Engineering at the 200-level or above. Students not admitted to the program may petition the School of Engineering to be admitted to individual courses.

ADVISING

All undergraduate students are encouraged to meet with their academic advisor each semester for the purpose of reviewing their academic progress and planning future courses. It is particularly important for students to meet with their advisor whenever academic difficulties arise.

ACADEMIC PROGRESS

All prerequisites for engineering courses must be completed with a grade of “C” or higher.

A student who is unable to earn a satisfactory grade in an engineering course during their initial enrollment may attempt to earn a satisfactory grade one additional time on a space-available basis.

In order to complete the first two years of a 4-year program leading to the degree of Bachelor of Science in Electrical Engineering at UAF, students must complete the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH A200</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>MATH A201</td>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>MATH A202</td>
<td>Calculus III</td>
<td>4</td>
</tr>
<tr>
<td>MATH A302</td>
<td>Ordinary Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>CHEM A105</td>
<td>General Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM A105L</td>
<td>General Chemistry I Lab</td>
<td>1</td>
</tr>
<tr>
<td>CHEM A106</td>
<td>General Chemistry II</td>
<td>3</td>
</tr>
<tr>
<td>CHEM A106L</td>
<td>General Chemistry II Lab</td>
<td>1</td>
</tr>
<tr>
<td>PHYS A211</td>
<td>General Physics I</td>
<td>3</td>
</tr>
<tr>
<td>PHYS A211L</td>
<td>General Physics I Lab</td>
<td>1</td>
</tr>
<tr>
<td>PHYS A212</td>
<td>General Physics II</td>
<td>3</td>
</tr>
<tr>
<td>PHYS A212L</td>
<td>General Physics II Lab</td>
<td>1</td>
</tr>
<tr>
<td>ENGL A111</td>
<td>Academic Writing About Literature (3)</td>
<td>3</td>
</tr>
<tr>
<td>ENGL A211</td>
<td>Methods of Written Communication</td>
<td>3</td>
</tr>
<tr>
<td>ENGL A213</td>
<td>Writing in the Social and Natural Sciences (3)</td>
<td>3</td>
</tr>
<tr>
<td>COMM A111</td>
<td>Fundamentals of Oral Communication (3)</td>
<td>3</td>
</tr>
<tr>
<td>COMM A235</td>
<td>Small Group Communication (3)</td>
<td>3</td>
</tr>
<tr>
<td>COMM A237</td>
<td>Interpersonal Communication (3)</td>
<td>3</td>
</tr>
<tr>
<td>COMM A241</td>
<td>Public Speaking (3)</td>
<td>3</td>
</tr>
<tr>
<td>ES A111</td>
<td>Engineering Science</td>
<td>3</td>
</tr>
<tr>
<td>ES A201</td>
<td>Computer Techniques</td>
<td>3</td>
</tr>
<tr>
<td>ES A209</td>
<td>Engineering Statics</td>
<td>3</td>
</tr>
<tr>
<td>ES A210</td>
<td>Engineering Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>EE A102</td>
<td>Introduction to Electrical Engineering</td>
<td>3</td>
</tr>
<tr>
<td>EE A203</td>
<td>Fundamentals of Electrical Engineering I</td>
<td>4</td>
</tr>
<tr>
<td>EE A204</td>
<td>Fundamentals of Electrical Engineering II</td>
<td>4</td>
</tr>
</tbody>
</table>

Plus 6 credits of General Education Requirement courses in the areas of Humanities, Social Sciences and/or Fine Arts.

Note: The required courses do not include ES A103 (Engineering Graphics with AutoCAD). However, this course is considered to be valuable to students and they are encouraged to take the course if their schedules permit.

FACULTY

Grant Baker, Associate Professor/Chair, AFGCB@uaa.alaska.edu
The Bachelor of Science in Engineering (BSE) program is a design oriented curriculum that incorporates topics that span the foundations of engineering disciplines. BSE students select courses for a specialization track that best suits their needs. Thus, the BSE curriculum can custom fit a student’s education with the needs of the community and industry. The three tracks of specialization are Computer Systems Engineering, Electrical Engineering, or Mechanical Engineering.

The Computer Systems Engineering (CSE) emphasis track focuses on applied computer theory and networking. Students take courses such as signals, systems, computer hardware design, assembly programming, and electronic device design.

The Electrical Engineering (EE) emphasis track focuses on applied circuit design and theory. Students take courses in electrical signals and systems, circuit design, and communication systems.

The Mechanical Engineering (ME) emphasis track focuses on heat transfer and machine design. Students take courses in heat transfer, HVAC (Heating, Ventilation, and Air Conditioning), and machine design.

PROGRAM OBJECTIVES AND OUTCOMES

Objectives for BSE graduates include: 1) application of engineering design and analysis principles; 2) incorporation of non-technical constraints and opportunities (i.e., aesthetic, social, ethical, etc.) in their analyses and designs; 3) undertaking of entry level positions in industry; 4) undertaking of advanced studies in a graduate emphasis program; 5) understanding the interdisciplinary nature of engineering works as it relates to energy, materials and environment; 6) application of technical and lifelong learning skills to effectively address present and future infrastructure needs of society; and 7) abiding by the ethical responsibilities of engineers.

Outcomes for BSE graduates include the ability to: 1) apply knowledge of mathematics through differential equations, probability and statistics, calculus based physics, and general chemistry; 2) design and conduct experiments; 3) analyze and interpret data; 4) design a system, component, or process to meet desired needs; 5) function on multi-disciplinary teams; 6) identify, formulate, and solve engineering problems; 7) understand professional and ethical responsibility; 8) communicate effectively; 9) understand the impact of engineering solutions in a global and societal context; 10) recognize the need for, and an ability to engage in life-long learning; 11) acknowledge contemporary issues in professional practice; and 12) apply the techniques, skills, and modern engineering tools necessary for engineering practice.

ADMISSION REQUIREMENTS

Complete the Baccalaureate Degree Programs Admission Requirements described in Chapter 7. In addition, in order to be approved for Engineering “Major” status, students entering the undergraduate engineering program should have completed the following high school courses with grades of “C” or better:

<table>
<thead>
<tr>
<th>Subject</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>3 years</td>
</tr>
<tr>
<td>Algebra</td>
<td>2 years</td>
</tr>
<tr>
<td>Trigonometry</td>
<td>1/2 year</td>
</tr>
<tr>
<td>Physics</td>
<td>1 year</td>
</tr>
<tr>
<td>Chemistry</td>
<td>1 year</td>
</tr>
</tbody>
</table>

If an applicant to the School of Engineering BSE program does not satisfy one or more of the above requirements, the student may be accepted into the BSE program with Engineering "Pre-Major" status.

ADVANCEMENT FROM PRE-MAJOR TO MAJOR STATUS

Pre-major BSE students must work with their assigned advisor to develop a course plan to make up the high school course requirements for advancement to major status in the BSE program. Once the course work outlined in the student’s course plan for advancement is completed, the Students must meet with their advisor to apply for advancement to major status. Advancement to major status is subject to approval by the advisor and department head.

CURRICULUM

The total required credits for the BSE degree is 132 credits for Computer Systems or Electrical Engineering emphasis, and 131 credits for the Mechanical Engineering emphasis. There are four main categories of required credits.

<table>
<thead>
<tr>
<th>Category</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Curriculum</td>
<td>80 or 79</td>
</tr>
<tr>
<td>Engineering Emphasis Track Courses</td>
<td>36 or 38</td>
</tr>
<tr>
<td>Advanced Math Elective</td>
<td>3</td>
</tr>
<tr>
<td>Advanced Engineering/Science Electives</td>
<td>12</td>
</tr>
<tr>
<td>Total Credits</td>
<td>131 or 132</td>
</tr>
</tbody>
</table>

During the first two years (freshman and sophomore) of the BSE degree program, the student completes a set of core courses. These courses cover basic sciences, mathematics, writing and communications (speech), and other general education requirement (GER) courses. These credits total 80 for the Mechanical Engineering track or 79 credits for the Computer Systems or Electrical Engineering tracks. This provides the student with a broad and solid background in the topics necessary to build a specialization in a field of engineering.

The engineering emphasis track courses are taken mostly in the 3rd and 4th (junior and senior) years. Each track has a series of required courses totaling either 36 credits (Mechanical Engineering track) or 38 credits (Computer Systems and Electrical Engineering). In addition, the student selects an additional 12 credits of advanced engineering or science electives, and a three (3) credit advanced mathematics elective.

Engineering design is introduced early in the curriculum and is emphasized throughout the program. In addition to the seminar series, a three course introductory Engineering Practices series is a required part of the curriculum. It is an outstanding customized coordination of courses that specifically teaches engineering students what they most need to know early in the curriculum. These courses help students become more successful in all of their subsequent courses and to be more effective as practicing engineers. Topics include applied mathematics, computer applications, experimental data gathering and analysis, collaborative teamwork, and report preparation and presentation. Also, a senior capstone design course is required.

Since the BSE program allows for the selection of more electives than the traditional BS engineering programs, students can custom design their curriculum to specialize in the areas of engineering most applicable for their plans. So, students can prepare themselves to specifically meet the needs of specific companies, and state and federal agencies.

Professional registration is emphasized throughout the program. Students attend three professional seminar courses that expose them to multiple experts from education and industry speaking about their field of expertise. All students are encouraged to take the Fundamental of Engineering examination before graduation.

http://www.engr.aaa.alaska.edu/soc/bse
Engineering Building, (ENGGR), Room 201, (907) 786-1900
**ADVISING**

All undergraduate students are encouraged to meet with their academic advisor each semester for the purpose of reviewing their academic progress and planning future courses. It is particularly important for students to meet with their advisor whenever academic difficulties arise.

**Mathematics Minor**

Upon completion of the BSE degree, the requirements for obtaining a Minor in Mathematics are also satisfied with any of the three emphasis tracks. Students are encouraged to apply for the mathematics minor with the BSE degree when applying for graduation.

**ACADEMIC PROGRESS**

All prerequisites for engineering courses must be completed with a grade of "C" or higher. A student that has a cumulative semester grade point average (GPA) in engineering courses below 2.00 will be placed on academic warning by the School of Engineering. If a student on academic warning status receives a semester GPA for engineering courses of at least 2.00, that student will be removed from academic warning status by the School of Engineering. Otherwise, the student will be dropped from the BSE program and must re-apply in order to continue in the BSE program. Re-admittance requires a letter from the student requesting re-admittance with an explanation of the reasons why that is subject to approval by the department head.

**GRADUATION REQUIREMENTS**

A. **GENERAL UNIVERSITY REQUIREMENTS**

Complete the General University Requirements for All Baccalaureate Degrees listed at the beginning of this chapter.

B. **GENERAL EDUCATION REQUIREMENTS**

Complete the General Education Requirements for Baccalaureate Degrees listed at the beginning of this chapter.

C. **MAJOR REQUIREMENTS**

1. Complete the following core courses:
   - CHEM A105 General Chemistry I 3
   - CHEM A105L General Chemistry I Lab 1
   - ENGR A151 Engineering Practices I 3
   - ENGR A161 Engineering Practices II 3
   - ENGR A192 Engineering Seminar I 1
   - ENGR A251 Engineering Practices III 3
   - ENGR A292 Engineering Seminar II 1
   - ENGR A392 Engineering Seminar III 1
   - ENGR A438 Engineering Systems Design 3
   - ES A208 Engineering Mechanics 4
   - ES A302 Probability & Statistics 3
   - ESM A450 Economic Analysis & Operations 3
   - MATH A200 Calculus I 4
   - MATH A201 Calculus II 4
   - MATH A202 Calculus III 4
   - MATH A202L Ordinary Differential Equations 3
   - PHYS A211 General Physics I 3
   - PHYS A211L General Physics I Lab 1
   - PHYS A212 General Physics II 3
   - PHYS A212L General Physics II Lab 1

2. Choose one of the specializations:

   **Computer Systems Engineering (41 credits)**
   Complete the following required courses:
   - CS A201 Programming Concepts 3
   - CS A203 Data Structures & Algorithms 3
   - CS A221 Computer Organization & Assembly Programming 3
   - CS A320 Operating Systems 3
   - CS A342 Networks 3
   - CSE A445 Computer Design & Interfacing 4
   - EE A203 Fundamentals of Electrical Engineering I 4
   - EE A204 Fundamentals of Electrical Engineering II 4
   - EE A241 Computer Hardware Concepts 4
   - EE A314 Electromagnetics 3
   - EE A314L Electromagnetics Laboratory I 1
   - EE A351 Signals & Systems 3
   - EE A465 Telecommunications 3
   - Advanced Mathematics Elective* 3
   - Advanced Engineering & Science Electives 12

   **Electrical Engineering (41 credits)**
   Complete the following required courses:
   - CS A201 Programming Concepts 3
   - CS A203 Data Structures & Algorithms 3
   - CS A221 Computer Organization & Assembly Programming 3
   - EE A203 Fundamentals of Electrical Engineering I 4
   - EE A204 Fundamentals of Electrical Engineering II 4
   - EE A241 Computer Hardware Concepts 4
   - EE A314 Electromagnetics 3
   - EE A314L Electromagnetics Laboratory I 1
   - EE A324 Electromagnetics II 3
   - EE A324L Electromagnetics Laboratory II 1
   - EE A331 Signals & Systems 3
   - EE A333 Circuit Theory 3
   - EE A441 Integrated Circuit Design 3
   - EE A465 Telecommunications 3
   - Advanced Mathematics Elective* 3
   - Advanced Engineering/Science Electives 12

   **Mechanical Engineering (40 credits)**
   Complete the following required courses:
   - CHEM A106 General Chemistry II 3
   - CHEM A106L General Chemistry II Laboratory 1
   - ES A309 Elements of Electrical Engineering 3
   - ES A331 Mechanics of Materials 3
   - ES A341 Fluid Mechanics 4
   - ES A346 Basic Thermodynamics 3
   - ME A302 Mechanical Design I 4
   - ME A308 Instrumentation and Measurement 3
   - ME A313 Mechanical Engineering Thermodynamics 3
   - ME A334 Elements of Material Science 3
   - ME A403 Mechanical Design II 4
   - ME A414 Thermal System Design 3
   - ME A441 Heat & Mass Transfer 3
   - Advanced Mathematics Elective* 3
   - Advanced Engineering & Science Electives 12

* **ADVANCED ELECTIVES**

BSE students are required to take 12 credits of advanced engineering/science electives from an approved list of electives for the particular emphasis area. Also, a 3 credit advanced mathematics elective is required that is selected from a single list common for all emphasis areas. Many elective courses require prerequisite courses that are also elective courses. Thus, in selecting elective courses students are strongly advised to work with their advisor to develop a cohesive set of elective courses. Choice of engineering electives is subject to approval by the student's advisor and the department head.

**Advanced Mathematics Electives (3 credits)**
BSE students are required to take one course from the following list of advanced mathematical elective courses:
- MATH A310 Numerical Methods (3)
- MATH A314 Linear Algebra (3)
- MATH A321 Analysis of Several Variables (3)
- MATH A324 Advanced Calculus (3)
- MATH A371 Stochastic Processes (3)
- MATH A407 Mathematical Statistics I (3)
- MATH A410 Introduction to Complex Analysis (3)
- MATH A422 Partial Differential Equations (3)
Advanced Engineering & Science Electives (12 credits)
BSE students are required to take 12 credits from list of approved advanced engineering and science elective courses.

A. COMPUTER SYSTEMS ENGINEERING EMPHASIS ELECTIVES
BSE students with a Computer Systems Engineering emphasis are required to take 12 credits from the following list of elective courses:
- CS A303: Object-Oriented Analysis, Design & Programming (3)
- CS A331: Programming Language Concepts (3)
- CS A351: Automata, Algorithms and Complexity (3)
- CS A360: Database Systems (3)
- CS A385: Computer Graphics and Multimedia (3)
- CS A401: Software Engineering (3)
- CS A405: Artificial Intelligence (3)
- CS A413: Computer and Data Security (3)
- CSE A451: Digital Signal Processing (3)
- CSE A465: Network Security (3)
- EE/ME A308: Instrumentation & Measurement (3)
- EE A324: Electromagnetics II (3)
- EE A324L: Electromagnetics Lab II (1)
- EE A353: Circuit Theory I (3)
- EE A407: Power Distribution and Control (3)
- EE A441: Integrated Circuit Design (3)
- EE/ME A471: Automatic Control (3)
- MATH A422: Partial Differential Equations (3)
- PHYS A303: Modern Physics (3)
- PHYS A456: Non-Linear Dynamics and Chaos (3)

**Only computer simulations, no hardware lab except for field trips**

B. ELECTRICAL ENGINEERING EMPHASIS ELECTIVES
BSE students with an Electrical Engineering emphasis are required to take 12 credits from the following list of elective courses:
- CS A342: Networks (3)
- CS A401: Software Engineering (3)
- CSE A445: Computer Design & Interfacing (4)
- CS A413: Computer and Data Security (3)
- CSE A451: Digital Signal Processing (3)
- CSE A465: Network Security (3)
- EE/ME A308: Instrumentation & Measurement (3)
- EE/ME A471: Automatic Control (3)
- EE A407: Power Distribution and Control** (3)
- PHYS A303: Modern Physics (3)

**Only computer simulations, no hardware lab except for field trips**

C. MECHANICAL ENGINEERING EMPHASIS ELECTIVES
BSE students with a Mechanical Engineering emphasis are required to take 12 credits from the following list of elective courses:
- CE A441: Water & Waste Systems Engineering (3)
- CE A442: Environmental Systems Design (3)
- CE A603: Arctic Engineering (3)
- EQE A600: Fundamentals of Environmental Science & Engineering (3)
- EQE A604: Environmental Quality Evaluation (3)
- EQE A608: Fundamentals of Air Pollution (3)
- ME A408: Dynamics of Systems (3)
- ME A664: Corrosion Processes & Engineering (3)
- ME A685: Arctic Heat & Mass Transfer (3)
- ME A687: Arctic Materials Engineering (3)

A total of 131 or 132 credits is required for the degree, of which 42 credits must be upper-division.

ACREDITATION
All necessary steps will be taken for successful accreditation by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Teaching (ABET).

FACULTY
Grant Baker, Associate Professor/Chair, AFGCB@uaa.alaska.edu

GEOMATICS
http://www.engr.uaa.alaska.edu/soe
Engineering Building (ENGR), Room 201, (907) 786-1900

The Department of Geomatics offers two degrees and a certificate: a 2-year Associate of Applied Science degree in Geomatics; a 4-year Bachelor of Science degree in Geomatics; and a Certificate in Geographic Information Systems (Certificate in GIS). Students seeking the baccalaureate degree may graduate in one of two emphasis areas: Survey Geomatics or Geographic Information Systems (GIS). Students seeking continuing education for technical or professional enhancement or a concentrated area of study in Geographic Information Systems should consider the Certificate in GIS. The Geomatics program is science-based and includes:

- Land surveying using global positioning systems (GPS) and conventional techniques
- Automated mapping
- Computational analysis and adjustment
- Geodesy
- Principles of boundary law
- Geographic Information Systems (GIS)
- Digital photogrammetry
- Remote sensing and image analysis

The wide diversity in the profession creates a similar diversity of employment opportunities. The Certificate in GIS educates students with a broad base of concepts and theory, provides them with hands-on training in real world problems that are relevant to Alaska’s environment, and allows them to explore several thematic areas in GIS applications, such as facilities management, transportation, marine environments, and natural resources.

The Associate of Applied Science degree in Geomatics prepares students for technician-level employment as land survey technicians or as automated mapping technicians. Those working as survey technicians frequently work outdoors, travel to various job locations, and enjoy an independent lifestyle. Automated mapping technicians work with the latest cartographic techniques and equipment and easily transfer skills learned in geomatics courses to other disciplines.

The Bachelor of Science degree prepares students for a wide variety of professional-level opportunities. Since Alaska poses unique geomatic challenges, the curriculum emphasizes northern principles and practices, making UAA graduates highly recruited in the Alaska marketplace and eligible for employment worldwide. Students will find employment in private industry, government, and municipal agencies. Geomaticians working at the professional level enjoy responsibility and a choice of indoor and outdoor employment with many opportunities for advancement and diversification.

The new high tech fields open employment in Geographic Information Systems (GIS), photogrammetry, remote sensing, land surveying, automated mapping, land design and planning, survey engineering, and resource management positions. In Alaska, geomaticians work on State and Native land claims, mining claims, fishing leases, petroleum reserves, forest selections, transportation corridors, private developments, government and military projects. In Alaska and elsewhere, geomaticians work in land surveying, land development and design, mapping and tax assessment, the
defence industry, environmental engineering assessment and management, public safety and welfare, medicine, transportation, agriculture, business, and natural sciences.

Professional predictors indicate that employment opportunities will be strong for the various geomatics specialties in Alaska and the Pacific Rim well into the 21st century. While enrolled in the program, students are eligible for cooperative employment programs with government agencies and with private industry during the summer and for intern programs during the school year.

The Department of Geomatics accommodates a wide variety of student objectives from entry level to professional preparation and encourages the non-traditional student to return for training in current practices and principles.

Students seeking professional licensing as Registered Land Surveyors and those who are interested in specializing in Survey Geomatics or Geographic Information Systems (GIS) should enroll in the Bachelor of Science degree program. For the most effective planning, Bachelor degree candidates should declare their intent by the second semester of their Geomatics studies.

ACCREDITATION

The Bachelor of Science degree program in Geomatics at UAA is accredited by the Applied Science Committee of the Accreditation Board for Engineering and Technology (ASAC/ABET).

ADVISING

All undergraduate students are encouraged to meet with their academic advisor each semester for the purpose of reviewing their academic progress and planning future courses. It is particularly important for students to meet with their advisor whenever academic difficulties arise.

Students are encouraged to consult the faculty in the Department of Geomatics for assistance in designing their course of study to ensure that all prerequisites have been met and that university and major degree requirements are understood and followed.

PREREQUISITES

All prerequisites for Geomatics courses must be completed with a grade of “C” or higher.

PREPARATION

The University offers courses to help students without this preparation to meet the skill level required in the Geomatics program. Insufficient preparation will increase the number of semesters required to complete either degree.

Students seeking the Certificate in Geographic Information Systems, the Associate of Applied Science or Bachelor of Science degree in Geomatics should prepare for entrance into the program by completing the following high school courses:

<table>
<thead>
<tr>
<th>Mathematics</th>
<th>Algebra II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Science</td>
<td>Trigonometry</td>
</tr>
<tr>
<td>English Composition</td>
<td>Skill level as demonstrated by ACT, SAT or approved placement test to qualify for enrollment in ENGL A111</td>
</tr>
</tbody>
</table>

Certificate, Geographic Information Systems

ADMISSION REQUIREMENTS

Satisfy the Admission to Certificate and Associate Degree Programs Requirements in Chapter 7, “Academic Standards and Regulations.”

COURSE REQUIREMENTS

Certain courses require prerequisites or faculty permission. Contact (907) 786-1900 for further information.

MAJOR REQUIREMENTS

In order to receive a Certificate in GIS, students must achieve a grade of “C” or higher in all courses applied to the certificate.

1. Complete the following required courses:
   - GEO A137 Principles of Mapping 3
   - GEO A167 Remote Sensing and Image Analysis 4
   - GIS A268 Elements of Geographic Information Systems (GIS) 4
   - GIS A366 Spatial Information Analysis and Modeling 3
   - GIS A367 GIS and Remote Sensing 3
   - GIS A458 Design and Management of Spatial Data 3
   - GIS A460 GIS Senior Project 3
   - GIS A333 GIS and the Marine Environment (3)
   - GIS A369 Land Information Systems (3)
   - GIS A370 GIS and Remote Sensing for Natural Resources (3)
   - GIS A375 GIS and Public Health (3)
   - GIS A468 Integration of Geomatic Technologies (3)
   - GIS A470 GIS for Facility Management and Transportation Systems (3)
   - GIS A295 Internship in Geographic Information Systems I (3) or
     GIS A495 Internship in Geographic Information Systems II (3)
   - GEO A490 Selected Advanced Topics in Geomatics (3)
   - GIS A490 Selected Advanced Topics in GIS (3)

2. Complete 9 credits from the following elective courses:
   - GIS A333 GIS and the Marine Environment (3)
   - GIS A369 Land Information Systems (3)
   - GIS A370 GIS and Remote Sensing for Natural Resources (3)
   - GIS A375 GIS and Public Health (3)
   - GIS A468 Integration of Geomatic Technologies (3)
   - GIS A470 GIS for Facility Management and Transportation Systems (3)
   - GIS A295 Internship in Geographic Information Systems I (3) or
     GIS A495 Internship in Geographic Information Systems II (3)
   - GEO A490 Selected Advanced Topics in Geomatics (3)
   - GIS A490 Selected Advanced Topics in GIS (3)

3. A maximum of 3 credits of Internship (GIS A295 or A495) and 3 credits of Advanced Topics in Geomatics (GEO A490) or Advanced Topics in GIS (GIS A490) can be counted toward the Certificate in GIS. Faculty approval of the GEO A490 or GIS A490 topic is necessary for application of the course to the Certificate program.

4. A total of 32 credits is required for the Certificate in GIS.

Associate of Applied Science, Geomatics

ADMISSION REQUIREMENTS

Satisfy the Admission to Certificate and Associate Degree Programs Requirements in Chapter 7, “Academic Standards and Regulations.”

GENERAL UNIVERSITY REQUIREMENTS

Complete the Associate of Applied Science General Degree Requirements located at the beginning of this chapter. Some of the major requirements will also fulfill Associate of Applied Science degree general requirements. Students should coordinate choices carefully with their academic advisor in the Department of Geomatics.

ACADEMIC PROGRESS

Students must complete all major requirement courses with a grade of “C” or higher. A student who is unable to earn a satisfactory grade in the major requirement courses during their initial enrollment may attempt to earn a satisfactory grade one additional time, on a space available basis.
MAJOR REQUIREMENTS

1. Complete 4 credits in physics: 4
   PHYS A123  Basic Physics I (3)
   PHYS A123L  Basic Physics I Laboratory (1)
   or
   PHYS A211  General Physics I (3)
   PHYS A211L  General Physics I Laboratory (1)

2. Complete the following required courses:
   ENGL A212  Technical Writing 3
   ES A210  Computer Techniques 3
   MATH A200  Calculus I 4
   MATH A201  Calculus II 4
   MATH A202  Calculus III 4
   MATH A302  Ordinary Differential Equations (3)
   MATH A314  Linear Algebra (3)
   AS A307  Probability (3)

3. Complete one of the following: 3
   GEO A358  Programming for Digital Cartography 3
   GEO A460  Geomatics Design Project 3
   GEO A433  Hydrographic Surveying (3)
   GEO A456  Geomatics and Civil Design (3)
   GEO A459  Geodetic Geomatics (3)
   GEO A467  Analytical and Digital Photogrammetry (3)
   GEO A490  Selected Advanced Topics in Geomatics (1-6)
   GIS A369  Land Information Systems (3)
   GIS A375  GIS and Public Health (3)
   GIS A468  Integration of Geomatics Technologies (3)
   GIS A470  GIS for Facility Management
   and Transportation Systems (3)
   GIS A490  Selected Advanced Topics in GIS (1-6)

4. Complete all of the following:
   GEO A137  Principles of Mapping 3
   GEO A146  Surveying Computations 3
   GEO A155  Fundamentals of Surveying 3
   GEO A157  Analytical and Digital Cartography 3
   GEO A166  Advanced Surveying 4
   GEO A167  Digital Terrain Cartography 3
   GEO A256  Municipal and Civil Geomatics 4
   GEO A257  Elements of Photogrammetry 3
   GEO A267  Boundary Law I 4
   GEO A268  Geomatics and Civil Geomatics (3)
   GEO A359  Land Development and Design 3
   GEO A359  Land Development and Design 3
   GEO A365  Geomatic Adjustment and Analysis 4
   GEO A457  Boundary Law II 4
   GEO A466  Geopositioning 4
   GIS A268  Elements of Geographic Information Systems (GIS) 4
   GIS A366  Spatial Information Analysis and Modeling 3
   GIS A369  Land Information Systems (3)
   GIS A370  GIS and Remote Sensing for Natural Resources (3)

3. A total of 61 credits is required for this degree.

BACHELOR OF SCIENCE, GEOMATICS

ADMISSION REQUIREMENTS

Complete the Admission to Baccalaureate Programs Requirements in Chapter 7, “Academic Standards and Regulations.”

GRADUATION REQUIREMENTS

A. GENERAL UNIVERSITY REQUIREMENTS

   Complete the General University Requirements for All Baccalaureate Degrees at the beginning of this chapter.

B. GENERAL EDUCATION REQUIREMENTS

   Complete the General Education Requirements for Baccalaureate Degrees at the beginning of this chapter.

ACADEMIC PROGRESS

Students must complete all courses under major requirements with a grade of “C” or higher. A student who is unable to earn a satisfactory grade in the major requirement courses during their initial enrollment may attempt to earn a satisfactory grade one additional time, on a space available basis.

C. MAJOR REQUIREMENTS

1. Complete 8 credits in physics from one of the following sequences: 8
   PHYS A123  Basic Physics I (3)
   PHYS A123L  Basic Physics I Laboratory (1)
   PHYS A124  Basic Physics II (3)
   PHYS A124L  Basic Physics II Laboratory (1)
   or
   PHYS A211  General Physics I (3)
   PHYS A211L  General Physics I Laboratory (1)
   PHYS A212  General Physics II (3)
   PHYS A212L  General Physics II Laboratory (1)

   These credits must be in addition to the 7 Natural Sciences credits taken to complete the General Education Requirement.

2. Complete the following:
   ENGL A212  Technical Writing 3
   ES A210  Computer Techniques 3
   MATH A200  Calculus I 4
   MATH A201  Calculus II 4
   MATH A202  Calculus III 4
   MATH A302  Ordinary Differential Equations (3)
   MATH A314  Linear Algebra (3)
   AS A307  Probability (3)

3. Complete one of the following: 3
   GEO A358  Programming for Digital Cartography 3
   GEO A460  Geomatics Design Project 3
   GEO A433  Hydrographic Surveying (3)
   GEO A456  Geomatics and Civil Design (3)
   GEO A459  Geodetic Geomatics (3)
   GEO A467  Analytical and Digital Photogrammetry (3)
   GEO A490  Selected Advanced Topics in Geomatics (1-6)
   GIS A369  Land Information Systems (3)
   GIS A375  GIS and Public Health (3)
   GIS A468  Integration of Geomatics Technologies (3)
   GIS A470  GIS for Facility Management
   and Transportation Systems (3)
   GIS A490  Selected Advanced Topics in GIS (1-6)

3. A total of 131 credits is required for the degree of which 42 must be upper division.

FACULTY

Don Davis Jr., Professor/Chair, AFDD@uaa.alaska.edu
Steven Buchanan, Instructor, AFSB1@uaa.alaska.edu
Cherie Northon, Associate Professor, AFCAN@uaa.alaska.edu
Mechanical engineers conceive, plan, design and direct the manufacturing, distribution and operation of a wide variety of devices, machines and systems for energy conversion, environmental control, materials processing, transportation, materials handling and other purposes. Mechanical engineers are engaged in creative design, applied research, development and management.

Because mechanical engineering is based on mathematics, chemistry, and physics, students are introduced to the basic principles in these areas during their first two years of study. They are also exposed to a variety of introductory courses in engineering science and to courses in communication, the humanities, social sciences and/or fine arts.

Two-Year Program Mechanical Engineering
The School of Engineering offers a program of studies that allow the completion of the first two years of a 4-year program leading to the Bachelor of Science degree in Mechanical Engineering. The program is coordinated with the University of Alaska Fairbanks (UAF) College of Science, Engineering and Mathematics. It allows students to transfer into the Mechanical Engineering program at UAF as 3rd year students with no loss of credit.

Admission Requirements
Complete the Admission to Baccalaureate Programs Requirements in Chapter 7, “Academic Standards and Regulations”. In addition, students entering the undergraduate engineering program must have completed the following high school courses with grades of “C” or better:

- English: 3 years
- Algebra: 2 years
- Trigonometry: 1/2 year
- Physics: 1 year
- Chemistry: 1 year

It is recommended that students graduating from high school without satisfactorily completing the courses noted above enroll in the necessary courses to make up deficiencies during the summer session.

Only those students admitted to the undergraduate engineering program may take courses offered by the School of Engineering at the 200-level or above. Students not admitted to the program may petition the School of Engineering to be admitted to individual courses.

Advising
All undergraduate students are encouraged to meet with their academic advisor each semester for the purpose of reviewing their academic progress and planning future courses. It is particularly important for students to meet with their advisor whenever academic difficulties arise.

Academic Progress
All prerequisites for engineering courses must be completed with a grade of “C” or higher.

A student who is unable to earn a satisfactory grade in an engineering course during their initial enrollment may attempt to earn a satisfactory grade one additional time on a space-available basis.

A student who has a semester grade point average (GPA) in engineering courses below 2.00 will be placed on academic warning by the School of Engineering. If a student on academic warning status receives a semester GPA for engineering courses of at least 2.00, that student will be removed from academic warning status by the School. Otherwise, they will be disqualified from further study in the School of Engineering and will not be permitted to attend engineering courses.

Program Requirements
In order to complete the first two years of a 4-year program leading to the degree of Bachelor of Science in Mechanical Engineering at UAF, students must complete the following courses:

- MATH A200 Calculus I 4
- MATH A201 Calculus II 4
- MATH A202 Calculus III 4
- MATH A302 Ordinary Differential Equations 3
- CHEM A105 General Chemistry I 3
- CHEM A105L General Chemistry I Lab 1
- CHEM A106 General Chemistry II 3
- CHEM A106L General Chemistry II Lab 1
- PHYS A211 General Physics I 3
- PHYS A211L General Physics I Lab 1
- PHYS A212 General Physics II 3
- PHYS A212L General Physics II Lab 1
- ENGL A111 Methods of Written Communication 3
- ENGL A211 Academic Writing About Literature (3) 3
  or
- ENGL A213 Writing in the Social and Natural Sciences (3)
- COMM A111 Fundamentals Of Oral Communication (3) 3
  or
- COMM A235 Small Group Communication (3)
  or
- COMM A237 Interpersonal Communication (3)
  or
- COMM A241 Public Speaking (3)
- ES A111 Engineering Science 3
- ES A 201 Computer Techniques 3
- ES A209 Engineering Statics 3
- ES A210 Engineering Dynamics 3
- ES A331 Mechanics of Materials 4
- ES A346 Basic Thermodynamics 3

Plus 9 credits of General Education Requirement courses in the areas of Humanities, Social Sciences and/or Fine Arts. 9

Note: The required courses do not include ES A103 (Engineering Graphics with AutoCAD). However, this course is considered to be valuable to student and they are encouraged to take the course if their schedules permit.

Faculty
Grant Baker, Associate Professor/Chair, AFGCB@uaa.alaska.edu
### MINOR PROGRAMS IN THE SCHOOL OF ENGINEERING

The School of Engineering offers minor programs to meet two sets of student needs. The first is a minor program in General Engineering which is for students that are majoring in a non-engineering baccalaureate degree. This program offers foundation coursework in core engineering topics.

The second is an Engineering Specialty minor program which is for students majoring in an engineering baccalaureate degree and, therefore, have completed much of the coursework in the Bachelor of Science in Engineering (BSE) or Civil Engineering (CE) program. Students within the engineering program may choose to pursue an Engineering Specialty minor in civil engineering, computer systems engineering, electrical engineering, or mechanical engineering.

Students enrolling in either minor program must satisfy all prerequisite requirements for the courses required for the chosen minor. Non-engineering majors, such as students in the sciences or mathematics, will likely be better positioned to meet the prerequisite requirements in the General Engineering minor program. Students majoring in engineering disciplines will likely be better positioned to meet the prerequisite requirements for courses in the Engineering Specialty minor programs.

### COURSE REQUIREMENTS FOR MINOR PROGRAMS

A Minor Program of study must consist of a minimum of 18 credit hours. At least six (6) credits must be upper-division. Students must earn a cumulative GPA of at least 2.0 (C) in the minor. A minor may only be issued simultaneously with a baccalaureate degree. See Chapter 10 of the UAA Catalog for general information about minor degree requirements.

The course requirements for each of the engineering minor degrees are listed below. In cases where students have unique backgrounds or interests, course selection may be adapted accordingly through consultation with the engineering faculty advisors.

#### A. GENERAL ENGINEERING MINOR PROGRAM

The following courses are required:

- ENGR A151 Engineering Practices I 3
- ENGR A161 Engineering Practices II 3
- ES A208 Engineering Mechanics 4

In addition, at least 3 courses must be selected from the following list:

- ES A309 * Elements of Electrical Engineering (3)
- ES A331 Mechanics of Materials (3)
- ES A341 * Fluids Mechanics (4)
- ES A346 * Thermodynamics (3)
- ESM A450 Engineering Economics (3)
- ME/EE A309 Instrumentation & Measurement (3)
- ME A334 Elements of Material Science (3)

#### B. ENGINEERING SPECIALTY MINOR PROGRAMS

### CIVIL ENGINEERING MINOR

A minimum of 18 credits must be selected from:

- CE A334 * Properties of Materials (3)
- CE A344 * Water Resources Engineering (3)
- CE A402 Transportation Engineering (3)
- CE A404 Highway Engineering (4)
- CE A422 * Foundation Engineering (3)
- CE A431 Structural Analysis (4)
- CE A432 * Steel Design (3)
- CE A433 * Reinforced Concrete Design (3)

### COMPUTER SYSTEMS ENGINEERING MINOR

A minimum of 18 credits must be selected from:

- CS A320 * Operating Systems (3)
- CS A342 * Networks (3)
- CS A405 Artificial Intelligence (3)
- CS A413 * Computer and Data Security (3)
- CSE A445 * Computer Design & Interfacing (4)
- CSE A451 * Digital Signal Processing (3)
- CSE A465 * Network Security (3)

### ELECTRICAL ENGINEERING MINOR

A minimum of 18 credits must be selected from:

- EE A203 * Fundamentals of Electrical Engineering I (4)
- EE A204 * Fundamentals of Electrical Engineering II (4)
- EE A241 Computer Hardware Concepts (4)
- EE/ME A308 Instrumentation & Measurement (3)
- EE A314 * Electromagnetics and Lab I (4)
- EE A324 Electromagnetics II and Lab II (4)
- EE A351 * Signals & Systems (3)
- EE A353 * Circuit Theory (3)
- EE A407 Power Distribution and Control (3)
- EE A441 Integrated Circuit Design (3)
- EE A465 * Telecommunications (3)
- EE/ME A471 Automatic Control (3)

### MECHANICAL ENGINEERING MINOR

A minimum of 18 credits must be selected from:

- ES A341 * Fluid Mechanics (4)
- ES A346 * Basic Thermodynamics (3)
- ME A302 * Mechanical Design I (4)
- ME/EE A308 * Instrumentation and Measurement (3)
- ME A313 Mechanical Engineering Thermodynamics (3)
- ME A334 * Elements of Material Science (3)
- ME A403 Mechanical Design II (4)
- ME A408 Dynamics of Systems (3)
- ME A414 Thermal System Design (3)
- ME A441 * Heat & Mass Transfer (3)
- ME/EE A471 Automatic Control (3)
- ME A664 Corrosion Processes & Engineering (3)
- ME A685 Arctic Heat & Mass Transfer (3)
- ME A687 Arctic Materials Engineering (3)

Note #1: MATH 200, 201, 202, 302; PHYS 211, 212; and CHEM 105, 106 are required prerequisites for most of the minor programs listed. Students should plan and review the requirements for their specific minor program to determine exactly what prerequisites will be required.

Note #2: An "*" indicates a recommended set of courses for the minor.

Note #3: BSE or CE majors may pursue a BSE Engineering Specialty minor but may not pursue the BSE General Engineering minor.

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