CERTIFICATES & ASSOCIATE

EMT students (from left) Floyd Lewis, Quinten Johnson and
Michael Bellia practice providing medical attention to fellow student
Claire Todd during class at UAF's Community and Technical College.

How to Earn a Certificate or Associate Degree

To earn a UAF degree, you must satisfy three sets of requirements: general university requirements; certificate or degree requirements; and program (major) requirements. These requirements are all described in this section of the catalog. Requirements for your major are found in the Certificate and Associate Degree Programs section, beginning on page 101.

If your degree program is delivered collaboratively within the UA system (e.g., information technology specialist, early childhood education, human services and rural human services), then the credits you earn from each UA institution will be counted toward fulfillment of the degree requirements and fulfillment of the minimum institutional residency requirements. Institutional residency requirements are the minimum number of credits you must earn from the campus where you earn a degree.

General University Requirements

You must earn at least 30 semester hours for a certificate and 60 semester hours for an associate degree, including transfer credits. At least 15 semester credits applicable to any certificate or associate degree must be earned at UAF. A minimum cumulative GPA of 2.0 is required in all work as well as in your major field. In addition, you must earn a minimum C- grade in courses required for your associate degree major. Some majors require higher GPAs for major course work.

Unless otherwise specified by the appropriate academic unit, a course may be taken more than once toward fulfilling degree, certificate or major requirements. However, credit hours for such courses count only once toward total credits required for the degree or certificate.

Once you have applied for graduation, certifying that you have met all major requirements is the responsibility of your academic advisor, who will notify the Office of Admissions and the Registrar.

If you want to use correspondence study credits from a school other than UAF to satisfy degree requirements, you must have the approval of those courses by the dean of the school or college from which you will graduate; otherwise, you take the risk the courses will not be accepted.

MAJORS

You may declare a major when you are admitted to UAF as a degree-seeking undergraduate student. If you haven't chosen a major, you'll be enrolled as a general studies student. Non-degree students are not eligible to declare a major, be assigned class standing or receive financial aid.

Students enrolled in associate degree or certificate programs who want to declare a bachelor's degree major must apply for admission to a degree program following the

TABLE 18 **GENERAL UNIVERSITY REQUIREMENTS FOR CERTIFICATES AND ASSOCIATE DEGREES**

	Certificate	Associate Degree
Minimum number of credits required	30 credits	60 credits
Credits that must be earned at UAF (residence credit)	15 credits	15 credits
Grade point average required	2.0 cumulative and in major	2.0 cumulative and in major
Minimum grades required for major	No grade lower than C- in courses required for major. Some departments have higher requirements	No grade lower than C- in courses required for major. Some departments have higher requirements.
Catalog year that can be used to meet requirements	May use any catalog in effect when enrolled as a degree-seeking student, regardless of major; five-year limit on catalog year	May use any catalog in effect when enrolled as a degree-seeking student, regardless of major; five-year limit on catalog year
Second degree requirements		Only one AA degree may be earned; 12 credits beyond first AAS degree and all requirements for the second degree must be met

standard admission process for bachelor's degree programs. (See admission requirements in How to Earn a Bachelor's Degree.)

- **Changing your Major**
  Undergraduate students may change majors by completing a change of major form available from the Office of Admissions and the Registrar or at **www.uaf.edu/reg/**. A change of major becomes effective for the following semester after it is submitted. Students who wish to change majors from one level to another level (i.e. from an associate degree to a bachelor's degree) must contact the Office of Admissions and the Registrar to apply for a level change.

CONCENTRATIONS

An area of emphasis, including the major core courses within a student's degree program, is termed a concentration. Some programs at UAF require a concentration, others do not. A student may only earn one degree in a specific discipline once. Using different concentrations within a degree program to count as different degrees is not allowed.

SECOND ASSOCIATE DEGREE

To receive a second associate of applied science degree, you must earn at least 12 credit hours beyond the first associate degree as well as complete all requirements for the major. As

long as you have completed the additional 12-hour requirement, you may be awarded two degrees in one semester.

DEGREE REQUIREMENTS AND TIME LIMITS

You may complete degree requirements in effect and published in the UAF catalog in any one of the previous five academic years in which you are enrolled as a degree student for a certificate or associate degree. You are considered enrolled in your degree program when you complete the appropriate degree-seeking student registration procedure. If you do not enroll for a semester or more, or if you enroll through the non-degree student registration process, you aren't considered enrolled as a degree student during that time.

EXCEPTIONS TO DEGREE REQUIREMENTS

Occasionally an undergraduate student may request an exception to an academic requirement or regulation. Requests for an academic dispensation must be approved by petition. If you submit a petition on the basis of a disability, the coordinator of disability services will be consulted. The Undergraduate Petition form is available online at **www.uaf.edu/reg/forms/**. Forms need to be returned to the Office of Admissions and the Registrar with required approval signatures. The Office of Admissions and the Registrar will post the petition information on Degree Works and notify you once a decision on your petition has been received. Academic petitions fall into three categories and each involve different processes:

- **Core Curriculum Petitions**
  If your petition deals with baccalaureate core requirements, your advisor and the head of the department of the academic area involved must grant approval. Submit your signed petition to the Office of Admissions and the Registrar. It will then be forwarded to the chair of the faculty senate core curriculum review committee for consideration.

- **Major or Minor Degree Requirement Petitions**
  If you want to waive or substitute courses within your major or minor requirements, you need approval signatures from your advisor and the department or program head of your major or minor area. Submit your signed petition to the Office of Admissions and the Registrar.

- **Petitions for Other Requirements**
  If your petition deals with general university and/or specific requirements for your degree or other academic policies, you need approval from your advisor and the dean or director of the college or school in which your major is located. Submit your signed petition to the Office of Admissions and the Registrar. It will then be forwarded to the UAF provost for consideration.

RESIDENCE CREDIT

Residence credit is course credit earned through any unit of UAF. Formal classroom instruction, correspondence study, distance-delivered courses, individual study or research at UAF are all considered residence credit. On the other hand, transfer credit, advanced placement credit, credit for prior learning, military service credit and credit granted through nationally prepared examinations are not considered residence credit, nor are credit by examination credits earned through locally prepared tests. None of these types of credit can be applied to UAF residency requirements.

RESIDENCY REQUIREMENT

Most universities have residency requirements that call for a certain number of credits toward a degree to be earned at the degree-granting school. At UAF, the residency requirement for both certificates and associate degrees is 15 resident credits.

GRADUATION

- **Responsibility**
  You are responsible for meeting all requirements for graduation. You are encouraged to work with your advisor and use DegreeWorks throughout your college career to ensure you are on track to graduate.

- **Application for Graduation**
  You need to formally apply for graduation. An application for graduation and non-refundable fee must be filed with the Office of Admissions and the Registrar. We encourage you to apply the semester prior to the semester you plan to graduate. If you file your application by the published deadline, the graduation application fee is $50. If you miss that deadline, you can submit a late application for graduation by the published late graduation deadline for the semester. The fee for a late application is $80. Applications for graduation filed after the late deadline are processed for graduation the following semester. Students who apply for graduation and who do not complete degree requirements by the end of the semester must reapply for graduation and repay the fee.

- **Diplomas and Commencement**
  UAF issues diplomas to graduates three times a year: in September following summer sessions, in January at the end of fall semester and in May at the end of spring semester. Students who complete degree requirements for UA Board of Regents-approved academic programs during the academic year are invited to participate in the annual commencement ceremony at the end of spring semester.
  Names of students receiving degrees/certificates appear in the commencement program and are released to the media unless you submit a written request not to do so to the Office of Admissions and the Registrar. Graduates are responsible for ordering caps and gowns through the UAF bookstore in early spring.

- **Graduation with Honors**
  Graduation with honors is a tribute that recognizes academic achievement. Honors graduates have earned a cumulative GPA of 3.5 or higher in all college work. If a student's overall cumulative GPA is 3.5 or higher, a student graduates with the distinction of cum laude; 3.75 or higher, magna cum laude; 3.9 or higher and no grade lower than A-, summa cum laude. Your cumulative GPA for graduation with honors is based on all college work attempted at UAF, including any repeated or omitted credits due to Fresh Start/academic bankruptcy.

For transfer students to be considered for graduation with honors, they must have:

- 3.5 cumulative GPA in all attempted UAF credits, and
- UAF residence credit of 24 semester hours for an associate degree.

Once those requirements are met, a cumulative GPA is calculated combining all college work attempted at UAF, as well as all college work attempted at any other institutions you've attended, including repeated credits and any credits that may not have been accepted for transfer to UAF. The combined cumulative GPA must also be 3.5 or higher for a transfer student to graduate with honors.

Types of Certificates and Associate Degrees

- **Certificate Programs**
  Certificate programs are designed for students who are preparing for entry-level employment or upgrading in a specific occupation.

- **Associate of Science**
  The AS degree represents the completion of a broad-based course of study with an emphasis in the sciences. This degree may serve as a stepping-stone to a science-related baccalaureate program. You may earn only one AS degree.

- **Associate of Arts**
  The AA is a program of study with an interdisciplinary approach useful for transferring to future degree programs or as a starting point for a career. An emphasis created in an AA program can fulfill general education requirements or become the basis for a minor in many bachelor's programs. The AA degree is offered at all UAF campuses as well as online. Students may only earn one AA.

- **Associate of Applied Science**
  The AAS is intended for students who are preparing for entry-level employment or upgrading in a specific occupation. This degree is not intended for transfer into a four-year degree program. However, some courses within the AAS degree may be accepted in a four-year bachelor's program (each course is considered on an individual basis).

Certificate Requirements

Certificate programs vary in length; however, you can usually complete them in one year. Certificates are awarded in specific occupational fields with emphasis on entering the job market. These certificates can serve as the basis for additional education and are the first step toward an associate of applied science (AAS) degree. For specific major requirements, refer to the degrees and programs section.

If your degree program is delivered collaboratively within the UA system, credits you earn from each UA institution will be counted toward fulfillment of the degree requirements and fulfillment of the minimum institutional residency requirements.

You may enroll in any course for which you are eligible. To earn a certificate, you must formally be admitted to a certificate program and you must earn at least 30 credits, including transfer credit. Fifteen semester hours must be residence credits. You must have a cumulative GPA of at least 2.0 in the major and overall. Students must earn a minimum grade of C- in all major courses. Some majors require higher GPAs for major course work. Programs of study for which certificates are granted must contain a recognizable body of instruction in the program-related areas of communication, computation and human relations.

Additional appropriate topics may include safety, industrial safety and environmental awareness. Instruction in the related instructional areas may be embedded within the program curriculum or taught in blocks of specialized instruction. Each approach, however, will have clearly identified content that is pertinent to the general program of study.

Note: Students planning to go on to a bachelor's degree need to work closely with their advisors and are encouraged to select courses meeting core requirements and courses designated within majors and minors. Only those courses with an X designator count toward the baccalaureate core.

Requirements	Credits
Communication	**2 – 3**

Complete one of the following:
- ENGL F111X—Introduction to Academic Writing (3)
- ABUS F170—Business English (3)
- ABUS F271—Business Communications (3)
- ENGL F211X—Academic Writing about Literature (3)
- ENGL F212—Business, Grant and Report Writing* (3)
- ENGL F213X—Academic Writing about the Social and Natural Sciences (3)
- COMM F131X—Fundamentals of Oral Communication: Group Context (3)
- COMM F141X—Fundamentals of Oral Communication: Public Context (3) or successful completion of competency test
- DEVS F104—University Communications (1 – 3)
- DEVS F105—Intensive Reading Development (3)
- Other program-approved discipline-based communication course or discipline-based courses with embedded communication content. (2 – 3)

* *ENGL F212 does not fulfill the second half of the written communication requirement for the bachelor's degree.*

Computation	**2 – 3**

Complete one of the following:
- Any course at the F100-level or above in mathematical sciences (computer science, math or statistics). (3)
- ABUS F155—Business Math (3)
- DEVM F105—Intermediate Algebra (3)
- ECE F117—Math Skills for Early Childhood Educators (3)
- HLTH F116—Mathematics in Health Care (3)
- HUMS F117—Math Skills for Human Services (3)
- TTCH F131—Mathematics for the Trades (3)
- Other program-approved discipline-based computation course or discipline-based courses with embedded computation content. (2 – 3)

Human Relations   2 – 3

Complete one of the following:
- ANTH F100X/SOC F100X—Individual, Society and Culture (s)(3)
- ABUS F154—Human Relations (3)
- ANL F287—Teaching Methods for Alaska Native Languages (h)(3)
- ECE F104—Child Development: Prenatal, Infants and Toddlers (s)(3)
- ECE F107—Child Development II: Preschool and Primary Years (s)(3)
- ED/PSY F245—Child Development (s)(3)
- HLTH F106—Human Behavior in Health Care (s)(3)
- HUMS F120—Cultural Diversity in Human Services (3)
- RHS F110—Cross-Cultural Bridging Skills (1) AND
  RHS F115—Issues of Personal Development (2)
- Other program-approved discipline-based human relations or discipline-based courses with embedded human relations content. (2 – 3)

Major specialty   at least 21

Electives to total   30

General Associate Degree Requirements

You must have completed at least 60 semester hours, including transfer credits, to earn a UAF associate degree.

At least 15 credits applicable to any associate degree must be UAF resident credits.

Associate of Arts Requirements

The associate of arts degree represents the completion of broad-based college study. This degree may serve as a starting point for your career or as a stepping-stone to a bachelor's program. You may earn only one AA degree.

The curriculum of the associate of arts degree consists of all courses required to meet the University of Alaska Fairbanks baccalaureate core, with the following exceptions:

1. The upper-division writing and oral intensive courses are not required

2. In place of the upper-division ethics course a humanities or social science elective may be substituted.

All credits for the AA degree must be at the F100-level or above with 20 credits at the F200-level or above, and be distributed as follows:

Baccalaureate core credits...........................38 – 44
General electives ....16 – 22

Requirements	Credits
Communication	**9**

- ENGL F111X—Introduction to Academic Writing (3)
  ENGL F190H may be substituted.

Complete one of the following:
- ENGL F211X—Academic Writing about Literature (3)
- ENGL F213X—Academic Writing about the Social and Natural Sciences (3)

Complete one of the following:
- COMM F131X—Fundamentals of Oral Communication: Group Context (3)
- COMM F141X—Fundamentals of Oral Communication: Public Context (3) or successful completion of competency test

Perspectives on the Human Condition (*humanities and social sciences*)   18

Complete all of the following four courses:
- ANTH F100X/SOC F100X—Individual, Society and Culture (3)
- ECON F100X or PS F100X—Political Economy (3)
- HIST F100X—Modern World History (3)
- ENGL/FL F200X—World Literature (3)   12

Complete one of the following three courses:
- ART/MUS/THR F200X—Aesthetic Appreciation: Interrelationship of Art, Drama and Music (3)
- HUM F201X—Unity in the Arts (3)
- ANS F202X—Aesthetic Appreciation of Alaskan Native Performance (3)   3

Complete one of the following six courses:
- BA F323X—Business Ethics (3)
- COMM F300X—Communicating Ethics (3)
- JUST F300X—Ethics and Justice (3)
- NRM F303X—Environmental Ethics and Actions (3)
- PS F300X—Ethics and Society (3)
- PHIL F322X—Ethics (3)   3

Note: Recommended for students who will earn a BA or BS degree. An additional social science elective may be substituted for the AA degree.

Or complete 12 credits from the above courses plus one of the following:
- Two semester-length courses in a single Alaska Native language or other non-English language
- Three semester-length courses (9 credits) in American Sign Language taken at the university level.   6 – 9

Mathematics   3

Complete one of the following:
- MATH F103X—Concepts and Contemporary Applications of Mathematics (3)
- MATH F107X—Functions for Calculus* (4)
- MATH F161X—Algebra for Business and Economics* (3)
- STAT F200X—Elementary Probability and Statistics (3)
* No credit may be earned for more than one of MATH F107X or F161X.

Or complete one of the following:*
- MATH F200X—Calculus I** (4)
- MATH F201X—Calculus II (4)
- MATH F202X—Calculus III (4)
- MATH F262X—Calculus for Business and Economics** (4)
- MATH F272X—Calculus for Life Sciences** (4)   3 – 4

* Or any math course having one of these as a prerequisite

** No credit may be earned for more than one of MATH F200X, MATH F262X or MATH F272X

Natural Sciences   8

Complete any two (4-credit) courses.
- ATM F101X—Weather and Climate of Alaska (4)
- BIOL F100X—Human Biology (4)
- BIOL F101X—Biology of Sex (4)
- BIOL F103X—Biology and Society (4)
- BIOL F104X—Natural History (4)
- BIOL F115X—Fundamentals of Biology I (4)
- BIOL F116X—Fundamentals of Biology II (4)
- BIOL F120X—Introduction to Human Nutrition (4)
- BIOL F213X—Human Anatomy and Physiology I (4)
- BIOL F214X—Human Anatomy and Physiology II (4)
- CHEM F100X—Chemistry in Complex Systems (4)
- CHEM F103X—Basic General Chemistry (4)
- CHEM F104X—Beginnings in Biochemistry (4)
- CHEM F105X—General Chemistry (4)
- CHEM F106X—General Chemistry (4)
- GEOG F111X—Earth and Environment: Elements of Physical Geography (4)
- GEOS F100X—Introduction to Earth Science (4)
- GEOS F101X—The Dynamic Earth (4)
- GEOS F106X—Life in the Age of the Dinosaurs (4)

- GEOS F112X—History of Earth and Life (4)
- GEOS F120X—Glaciers, Earthquakes and Volcanoes (4)
- GEOS F125X—Humans, Earth and Environment (4)
- MSL F111X—The Oceans (4)
- PHYS F102X—Energy and Society (4)
- PHYS F103X—College Physics (4)
- PHYS F104X—College Physics (4)
- PHYS F115X—Physical Science I (4)
- PHYS F175X—Astronomy (4)
- PHYS F211X—General Physics (4)
- PHYS F212X—General Physics (4)
- PHYS F213X—Elementary Modern Physics (4) 8

Library and Information Research	0 – 1

Successful completion of library skills competency test or LS F100X or F101X 0 – 1

Total credits required	38 – 39

Students planning to go on to a bachelor's degree are advised to select courses meeting remaining core requirements and courses designated within bachelor's degree majors and minors.

Minimum credits required for degree	60

Associate of Applied Science Requirements

Associate of applied science degrees are awarded in specific occupational fields with emphasis on entering the job market. This degree, usually seen as a terminal degree, can serve as the basis for additional education. For specific major requirements, see the Certificate and Associate Degree Programs section beginning on page 101.

Note: Students planning to go on to a bachelor's degree need to work closely with their advisors and are encouraged to select courses meeting core requirements and courses designated within majors and minors. Only courses with an X designator count towards the baccalaureate core.

All credits for the AAS degree must be at the F100-level or above and be distributed as follows:

Requirements	Credits
Communication	**9**

Written Communication	**6**

ENGL F111X—Introduction to Academic Writing (3)

Complete one of the following:
- ABUS F271—Business Communications (3)
- ENGL F211X—Academic Writing about Literature (3)
- ENGL F212—Business, Grant and Report Writing* (3)
- ENGL F213X—Academic Writing about the Social and Natural Sciences (3)

* *ENGL F212 does not fulfill the second half of the written communication requirement for the bachelor's degree.*

Oral Communication	**3**

Complete one of the following:
- COMM F131X—Fundamentals of Oral Communication: Group Context (3)
- COMM F141X—Fundamentals of Oral Communication: Public Context (3) or successful completion of competency test

Computation	3

Complete one of the following:
- Any course at the F100-level or above in mathematical sciences (computer science, math or statistics. (3)
- ABUS F155—Business Math (3)
- DEVM F105—Intermediate Algebra (3)
- ECE F117—Math Skills for Early Childhood Educators (3)
- HLTH F116—Mathematics in Health Care (3)
- HUMS F117—Math Skills for Human Services (3)
- TTCH F131—Mathematics for the Trades (3)
- other program-approved discipline-based computation course or discipline-based courses with embedded computation content. (3)

Human Relations	3

Complete one of the following:
- ANTH F100X/SOC F100X—Individual, Society and Culture (s)(3)
- ABUS F154—Human Relations (3)
- ANL F287—Teaching Methods for Alaska Native Languages (h)(3)
- ECE F104—Child Development: Prenatal, Infants and Toddlers (s)(3)
- ECE F107—Child Development II: Preschool and Primary Years (s)(3)
- ED/PSY F245—Childhood Development (s)(3)
- HLTH F106—Human Behavior in Health Care (s)(3)
- HUMS F120—Cultural Diversity in Human Services (3)
- RHS F110—Cross-Cultural Bridging Skills (1) AND RHS F115—Issues of Personal Development (2)
- other program-approved discipline-based human relations course or discipline-based courses with embedded human relations content. (3)

Major specialty	at least 30

Electives to total	60

Minimum credits required for degree	60

Associate of Science Requirements

The associate of science degree represents the completion of a broad-based course of study with an emphasis in the sciences. This degree may serve as a stepping-stone to a science-related baccalaureate program. You may earn only one AS degree.

Requirements	Credits

Communication 9

- ENGL F111X—Introduction to Academic Writing (3)
- ENGL F213X—Academic Writing about the Social and Natural Sciences (3)

Complete one of the following:
- COMM F131X—Fundamentals of Oral Communication: Group Context (3)
- COMM F141X—Fundamentals of Oral Communication: Public Context (3) or successful completion of competency test

Humanities and Social Sciences 15

Complete all of the following:
- ANTH F100X/SOC F100X—Individual, Society and Culture (3)
- ECON F100X OR PS F100X—Political Economy (3)
- HIST F100X—Modern World History (3)
- ENGL/FL F200X—World Literature (3)

Complete one of the following:
- ART/MUS/THR F200X—Aesthetic Appreciation: Interrelationship of Art, Drama and Music (3)
- HUM F201X—Unity in the Arts (3)
- ANS F202X—Aesthetic Appreciation of Alaskan Native Performance (3)
- Or complete 12 credits from the above courses plus one of the following: Two semester-length courses in a single Alaska Native language or other non-English language
- Three semester-length courses (9 credits) in American Sign Language.

Mathematics 4

- MATH F107X—Functions for Calculus (4)*

Or complete one of the following:
- MATH F200X—Calculus I (4)
- MATH F272X—Calculus for Life Sciences (4)

No credit may be earned for more than one of MATH F107X or F161X.

Natural Sciences 16

- BIOL F101X—Biology of Sex (4)
- BIOL F103X—Biology and Society (4)
- BIOL F104X—Natural History (4)
- BIOL F115X—Fundamentals of Biology I (4)
- BIOL F116X—Fundamentals of Biology II (4)
- BIOL F120X—Introduction to Human Nutrition (4)
- BIOL F213X   Human Anatomy and Physiology I (4)
- BIOL F214X   Human Anatomy and Physiology II (4)
- CHEM F100X—Chemistry in Complex Systems (4)
- CHEM F103X—Basic General Chemistry (4)
- CHEM F104X—Beginnings in Biochemistry (4)
- CHEM F105X—General Chemistry (4)
- CHEM F106X—General Chemistry (4)
- GEOG F111X—Earth and Environment: Elements of Physical Geography (4)
- GEOS F100X—Introduction to Earth Science (4)
- GEOS F101X—The Dynamic Earth (4)
- GEOS F106X—Life in the Age of the Dinosaurs (4)
- GEOS F112X—History of Earth and Life (4)
- GEOS F120X—Glaciers, Earthquakes and Volcanoes (4)
- GEOS F125X—Humans, Earth and Environment (4)
- MSL F111X—The Oceans (4)
- PHYS F102X—Energy and Society (4)
- PHYS F103X—College Physics (4)
- PHYS F104X—College Physics (4)
- PHYS F115X—Physical Science I (4)
- PHYS F175X—Astronomy (4)
- PHYS F211X—General Physics (4)
- PHYS F212X—General Physics (4)
- PHYS F213X—Elementary Modern Physics (4)

Complete a one-year sequence in one natural science beyond the baccalaureate core. The total courses used to satisfy this requirement shall represent at least two different natural sciences.

Library and Information Research 0 – 1

- Successful completion of library skills competency test or LS F100X OR F101X

Concentration specialty at least 15

Minimum credits required for degree 60

Certificate and Associate Degree Programs

ACCOUNTING, APPLIED

College of Rural and Community Development
Department of Applied Business, Paralegal and Accounting
Community and Technical College
907-455-2800
www.ctc.uaf.edu/programs/accounting/

AAS Degree

Minimum Requirements for AAS Degree: 60 credits

The applied accounting program prepares students for entry- and mid-level accounting positions in payables and/or receivables, bookkeeping and payroll accounting. This program covers financial decision-making tools for the small business operator as well.

Courses in the applied accounting program address the concerns of modern business people and provide the training necessary to enhance business success. The applied accounting program prepares a student to enter the UAF School of Management's BBA program in accounting in order to earn the 150 credits required to take the CPA exam in Alaska.

Students entering the AAS program are expected to have basic computer skills equivalent to CIOS F150. Classes are scheduled during the day, in the evening and online to accommodate working students. Microcomputer and office technology labs are available for hands-on training.

Major — AAS Degree

1. Complete the general university requirements (page 95).

2. Complete the AAS degree requirements. (See page 99. As part of the AAS degree requirements, it is recommended, though not required, that students complete ABUS F154 for the human relations requirement and ABUS F155 for the computation requirement.)

3. Complete the following program (major) requirements:*
   ABUS F101—Principles of Accounting I..3
   ABUS F141—Payroll Accounting...3
   ABUS F175—Customer Service (3)
      or ABUS F179—Fundamentals of Supervision (3) 3
   ABUS F201—Principles of Accounting II..3
   ABUS F202—Principles of Accounting III...3
   ABUS F203—Accounting Capstone 3
   ABUS F210—Income Tax..3
   ABUS F221—Microcomputer Accounting (3)
      or ABUS F220—Microcomputer Accounting: QuickBooks (3) 3
   ABUS F233—Financial Management...3
   ABUS F235—Fund Accounting for Non-Profits (3)
      or ABUS F160—Principles of Banking (3)...3
   BA F151—Introduction to Business...3
   CIOS F135—Microcomputer Spreadsheets (3)
      or CIOS F240—Microcomputer Databases (3) 3
   Department-recommended electives 9

4. Minimum credits required 60
   *   *Students must earn a C- grade or better in each course.*

Minor

1. Complete the following:
   ABUS F101—Principles of Accounting I..3
   ABUS F201—Principles of Accounting II (3)
      or ABUS F235—Fund Accounting for Non-Profits (3)...................3
   ABUS F210—Income Tax..3
   ABUS F220—Microcomputer Accounting: QuickBooks (3)
      or ABUS F221—Microcomputer Accounting (3).............................3
   BA F151—Introduction to Business...3
   CIOS F135—Microcomputer Spreadsheets (3)
      or CIOS F240—Microcomputer Databases (3) 3

2. Minimum credits required 18

ACCOUNTING TECHNICIAN

College of Rural and Community Development
Department of Applied Business, Paralegal and Accounting
Community and Technical College
907-455-2800
www.ctc.uaf.edu/programs/accounting/

Certificate

Minimum Requirements for Certificate: 30 credits

The accounting technician program prepares students for entry-level accounting positions in payables and/or receivables, bookkeeping and payroll accounting. This program covers financial decision-making tools for the small business operator as well.

Courses in this program address the concerns of modern business people and provide the training necessary to enhance business success. The accounting technician certificate represents the first year of training toward the applied accounting AAS degree. Students admitted into the accounting BBA degree program may apply their earned certificate credits toward the State of Alaska's 150 hour requirement for a CPA license.

Students entering the certificate program are expected to have basic computer skills equivalent to CIOS F150. Classes are scheduled in the evening to accommodate working students. Microcomputer and office technology labs are available for hands-on training.

Certificate Program

1. Complete the general university requirements (page 95).

2. Complete the following certificate requirements:

   a. Complete one of the following communication courses:
      ABUS F170—Business English (3)
         or ABUS F271—Business Communications (3)
         or ENGL F111X—Introduction to Academic Writing (3)
         or ENGL F212—Business, Grant, and Report Writing (3).............3

   b. Complete one of the following computation courses:
      ABUS F155—Business Math (3)
         or MATH at the 100-level or above (3)..3

   c. Complete the following:
      ABUS F154—Human Relations (3)
         or other UAF certificate-approved human relations course (3) 3

3. Complete the following program (major) requirements.
   ABUS F101—Principles of Accounting I..3
   ABUS F141—Payroll Accounting...3

CERTIFICATES & ASSOCIATE DEGREES

ABUS F201—Principles of Accounting II (3)
   or ABUS F235—Fund Accounting for Non-Profits (3)..................3
ABUS F203—Accounting Capstone 3
ABUS F210—Income Tax...3
ABUS F220—Microcomputer Accounting: QuickBooks (3)
   or ABUS F221—Microcomputer Accounting (3)...........................3
BA F151—Introduction to Business..3

4. Minimum credits required 30

3. Complete 6 credits of safety, computer, business, technical, or other advisor-approved courses linked to an identified education or career pathway 6

4. Approved apprenticeship program transfer of credit maximum 38

5. Electives to complete 60 credits as needed.

6. Minimum credits required 60

APPRENTICESHIP TECHNOLOGIES

College of Rural and Community Development
Bristol Bay Campus 907-842-5109
Chukchi Campus 907-442-3400
Interior-Aleutians Campus 907-474-5439
Kuskokwim Campus 907-543-4500
Northwest Campus 907-443-2201
Community and Technical College 907-455-2800
www.uaf.edu/rural/

AAS Degree
Minimum Requirements for Degree: 60 credits

The AAS degree in apprenticeship technologies provides career and technical training and supporting course work to prepare students for the rapidly changing global workplace. The program also helps Alaska industries by training workers who can meet increasing certification requirements which reflect complex business and industrial standards.

The apprenticeship technologies program is a 60-credit AAS degree delivered collaboratively through UAA, UAF and UAS. The practical integration of general course work and training for vocational-technical trades specifically reflects the commitment of the university to high-quality instruction and public service. Individuals earning this degree must complete a formal apprenticeship program and hold journey-level status in trades or occupations (including occupational license or occupational certificate) recognized by the U.S. Department of Labor, Office of Apprenticeship and Training.

Students declaring a major in apprenticeship technologies must present documentation of acceptance into an apprenticeship program meeting the requirements of the U.S. Department of Labor, Bureau of Apprenticeship and Training. The appropriate College of Rural and Community Development campus will review the documentation and may recommend up to 38 credits of course work following completion of all courses listed below. Students are encouraged to begin the required courses while completing the apprenticeship program to expand the quality and breadth of the program. Students who complete this program may be eligible to enroll in the BS technology degree program at UAA or the BT degree program at UAF.

Major — AAS Degree

1. Complete the general university requirements (page 95).

2. Complete the AAS degree requirements (page 99). As part of the AAS degree requirements, complete:
ENGL F111X—Introduction to Academic Writing.............................3
ENGL F212—Business, Grant and Report Writing............................3
COMM F131X—Fundamentals of Oral Communication: Group Context (3)
   or COMM F141X—Fundamentals of Oral Communication: Public Context (3)..3
STAT F200X—Elementary Probability and Statistics (3)
   or DEVM F105—Intermediate Algebra (3)
   or any MATH course at the 100-level or higher (3).........................3
ABUS F154 or ANTH F100X or SOC F100X......................................3

ASSOCIATE OF ARTS

College of Rural and Community Development
Bristol Bay Campus 907-842-5109
Chukchi Campus 907-442-3400
Interior-Aleutians Campus 907-474-5439
Kuskokwim Campus 907-543-4500
Northwest Campus 907-443-2201
Community and Technical College 907-455-2800
www.ctc.uaf.edu/programs/aa/

AA Degree
Minimum Requirements for Degree: 60 credits

The associate of arts degree is offered at all UAF campuses. The degree offers a rigorous program of study for the serious student who eventually intends to transfer to a bachelor's degree program. The degree may serve as a starting point for a career or as a stepping-stone to a bachelor's program. You may only earn one AA degree.

Major — AA Degree

1. Complete the general university requirements (page 95).

2. Complete the AA degree requirements (page 98).

3. Minimum credits required 60

ASSOCIATE OF SCIENCE

College of Rural and Community Development
Interior-Aleutians Campus
907-474-5439
www.uaf.edu/iac/

AS Degree
Minimum Requirements for Degree: 60 credits

The associate of science degree represents the completion of a broad-based course of study with an emphasis in the sciences. This degree may serve as a stepping-stone to a science-related baccalaureate program. You may earn only one AS degree.

Major — AS Degree

1. Complete the general university requirements (page 95).

2. Complete the AS degree requirements (page 100).

3. Complete concentration area of at least 15 credits from a science-focused area of study in natural sciences, mathematics, statistics, engineering, computer science or from a bachelor of science degree area as determined in coordination with your advisor*......15

4. Minimum credits required 60

* *All credits for the AS degree must be at the 100-level or above with 20 credits at the 200-level or above. Variation in credits depends on the concentration area.*

AUTOMOTIVE TECHNOLOGY

College of Rural and Community Development
Community and Technical College
907-455-2932
www.ctc.uaf.edu/programs/Automotive/

Certificate

Minimum Requirements for Certificate: 34 credits

The automotive technology program provides students with the education and training needed to become an entry-level automotive technician. The automotive service industry is constantly changing as cars become more complicated. Highly trained technicians are needed to understand, diagnose and repair modern automobiles.

The program emphasizes hands-on training and in-class experience as students perform preventive maintenance inspections, determine causes of equipment problems and make necessary repairs and adjustments to the complex systems that make up today's cars. The certificate training qualifies students for entry-level positions within the automotive service and repair industry in the areas of electricity/electronics, brakes, suspension and alignment, and engine performance.

Successful graduates from the automotive technology program go on to careers in dealerships, independent shops, service/IM stations, fleet repair facilities and aviation ground support. Salaries vary depending on job placement and the student's skill level.

Certificate Program

1. Complete the general university requirements (page 95).

2. Complete the certificate requirements. (See page 97. As part of the certificate requirements, the communication, computation and human relations content are embedded in the major required courses for this program).

3. Complete the following program (major) requirements:*
   AUTO F102—Introduction to Automotive Technology.....................3
   AUTO F110—Basic Electrical Systems..3
   AUTO F122—Engine Theory and Diagnosis 3
   AUTO F131—Automotive Electrical II 3
   AUTO F150—Brake Systems 4
   AUTO F162— Suspension Alignment...4
   AUTO F190—Automotive Practicum I..4
   AUTO F202—Auto Fuel and Emissions Systems 4
   AUTO F222—Automotive Engine Performance 3
   AUTO F227—Automotive Electrical III 3

4. Minimum credits required 34
* _Students must earn a C grade or better in each course._

AVIATION MAINTENANCE

College of Rural and Community Development
Community and Technical College
907-455-2809
www.ctc.uaf.edu/programs/amt/

Certificate; AAS Degree

Minimum Requirements for Certificate: 31 – 49 credits;
for Degree: 64 credits

Aviation maintenance offers an AAS degree and certificates in three areas: airframe, powerplant, or airframe and powerplant.

Students who receive a certificate in airframe and powerplant may elect to complete the AAS degree in aviation maintenance to enhance their employability.

Students in the airframe and powerplant certificate program may complete requirements for the Federal Aviation Administration (FAA) mechanic's certificate with both airframe and powerplant ratings in as little as one year. The aviation maintenance program covers many subject areas, but it places special emphasis on those skills most sought after in the Alaska job market. Through classroom and hands-on laboratory instruction, this intensive curriculum prepares students for entry into the aviation field. Graduates who pass the FAA examinations for the airframe and powerplant ratings are qualified for entry-level positions in the maintenance, repair, overhaul and modification of aircraft.

Students interested in qualifying for an FAA airframe mechanic's certificate may choose to earn only the airframe certificate, and those who wish to qualify for an FAA powerplant mechanic's certificate may choose to earn only the powerplant certificate.

Admission to the airframe and powerplant programs is at the discretion of the program faculty and requires an interview with the faculty advisor. The program normally starts around the first of September of each year. Applicants may start at other times if they meet experience and educational qualifications that meet departmental approval.

Airframe and Powerplant — Certificate Program

1. Complete the general university requirements (page 95).

2. Complete the certificate requirements. (See page 97. As part of the certificate requirements, the communication, computation and human relations content is embedded in the major required courses for this program.)

3. Complete the following general requirements:
   AFPM F145—Basic Mathematics...1
   AFPM F146—Basic Electricity 2
   AFPM F147—Physics for Mechanics 0.5
   AFPM F148—Aircraft Drawing 1
   AFPM F149—Fluid Lines and Fitting......................................0.5
   AFPM F150—Materials and Processes 2
   AFPM F151—Cleaning and Corrosion Control 1
   AFPM F152—Federal Aviation Regulations.............................1
   AFPM F153—Weight and Balance...1
   AFPM F154—Ground Operations and Servicing....................0.5

4. Complete the following airframe structures requirements:
   AFPM F261—Non Metallic Structures 1
   AFPM F262—Aircraft Coverings..1
   AFPM F263—Aircraft Finishes...0.5
   AFPM F264—Sheet Metal Structures 3
   AFPM F265—Aircraft Welding..1.5
   AFPM F266—Assembly and Rigging......................................1.5
   AFPM F267—Airframe Inspections.......................................0.5
   AFPM F270—Airframe Testing 0.5

5. Complete the following airframe systems and components requirements:
   AFPM F230—Aircraft Electrical Systems............................. 2.5
   AFPM F253—Transport Category Aircraft................................1
   AFPM F254—Ice and Rain Control Systems 0.5
   AFPM F256—Communications and Navigation Systems 0.5
   AFPM F258—Cabin Atmosphere Control Systems 1
   AFPM F259—Hydraulic and Pneumatic Systems 1.5
   AFPM F260—Aircraft Landing Gear Systems...............................1.5

6. Complete the following powerplant theory and maintenance requirements:
   AFPM F235—Aircraft Reciprocating Engines............................. 4.5
   AFPM F240—Turbine Engines...2
   AFPM F271—Powerplant Inspections 0.5
   AFPM F272—Powerplant Testing...0.5

7. Complete the following powerplant systems and components requirements:
   AFPM F231—Powerplant Electrical Systems..........................1.5
   AFPM F244—Lubrication Systems...1.5
   AFPM F245—Ignition Systems..2

AFPM F246—Fuel Metering Systems...........................2
AFPM F248—Induction Systems...............................0.5
AFPM F249—Powerplant Cooling Systems.............0.5
AFPM F250—Powerplant Exhaust Systems..............0.5
AFPM F252—Propellers..2

8. Complete the following combined systems and components requirements:
AFPM F251—Fuel Systems 1.5
AFPM F255—Fire Protection Systems.....................0.5
AFPM F257—Instrument Systems............................0.5

9. Minimum credits required 49

Airframe — Certificate Program

1. Complete the general university requirements (page 95).

2. Complete the certificate requirements. (See page 97. As part of the certificate requirements, the communication, computation and human relations content is embedded in the major required courses for this program.)

3. Complete the following general requirements:
AFPM F145—Basic Mathematics..................................1
AFPM F146—Basic Electricity 2
AFPM F147—Physics for Mechanics.........................0.5
AFPM F148—Aircraft Drawing 1
AFPM F149—Fluid Lines and Fitting.......................0.5
AFPM F150—Materials and Processes 2
AFPM F151—Cleaning and Corrosion Control 1
AFPM F152—Federal Aviation Regulations..............1
AFPM F153—Weight and Balance..............................1
AFPM F154—Ground Operations and Servicing......0.5

4. Complete the following airframe structures requirements:
AFPM F261—Non-Metallic Structures........................1
AFPM F262—Aircraft Coverings 1
AFPM F263—Aircraft Finishes...................................0.5
AFPM F264—Sheet Metal Structures 3
AFPM F265—Aircraft Welding..................................1.5
AFPM F266—Assembly and Rigging........................1.5
AFPM F267—Airframe Inspections..........................0.5
AFPM F270—Airframe Testing 0.5

5. Complete the following airframe systems and components requirements:
AFPM F230—Aircraft Electrical Systems................. 2.5
AFPM F253—Transport Category Aircraft 1
AFPM F254—Ice and Rain Control Systems 0.5
AFPM F256—Communications and Navigation Systems 0.5
AFPM F258—Cabin Atmosphere Control Systems 1
AFPM F259—Hydraulic and Pneumatic Systems 1.5
AFPM F260—Aircraft Landing Gear Systems.........1.5

6. Complete the following combined systems and components requirements:
AFPM F251—Fuel Systems 1.5
AFPM F255—Fire Protection Systems.....................0.5
AFPM F257—Instrument Systems............................0.5

7. Minimum credits required 31

Powerplant — Certificate Program

1. Complete the general university requirements (page 95).

2. Complete the certificate requirements. (See page 97. As part of the certificate requirements, the communication, computation and human relations content is embedded in the major required courses for this program.)

3. Complete the following general requirements:
AFPM F145—Basic Mathematics..................................1
AFPM F146—Basic Electricity 2
AFPM F147—Physics for Mechanics.........................0.5
AFPM F148—Aircraft Drawing 1

AFPM F149—Fluid Lines and Fitting.......................0.5
AFPM F150—Materials and Processes 2
AFPM F151—Cleaning and Corrosion Control 1
AFPM F152—Federal Aviation Regulations..............1
AFPM F153—Weight and Balance..............................1
AFPM F154—Ground Operations and Servicing......0.5

4. Complete the following powerplant theory and maintenance requirements:
AFPM F235—Aircraft Reciprocating Engines............... 4.5
AFPM F240—Turbine Engines......................................2
AFPM F271—Powerplant Inspections......................0.5
AFPM F272—Powerplant Testing...............................0.5

5. Complete the following powerplant and systems components requirements:
AFPM F231—Powerplant Electrical Systems...................1.5
AFPM F244—Lubrication Systems...............................1.5
AFPM F245—Ignition Systems 2
AFPM F246—Fuel Metering Systems..........................2
AFPM F248—Induction Systems...............................0.5
AFPM F249—Powerplant Cooling Systems.............0.5
AFPM F250—Powerplant Exhaust Systems..............0.5
AFPM F252—Propellers..2

6. Complete the following combined systems and components requirements:
AFPM F251—Fuel Systems 1.5
AFPM F255—Fire Protection Systems.....................0.5
AFPM F257—Instrument Systems............................0.5

7. Minimum credits required 31

Note: This is a one-year program, usually starting at the beginning of September. Entry at other times is allowed only with departmental approval. A personal background check and drug test will be required prior to acceptance into the airframe and powerplant, airframe or powerplant certificate programs.

Aviation Maintenance — AAS Degree

1. Complete the general university requirements (page 95).

2. Complete the AAS degree requirements (page 99).

3. Complete the requirements for the airframe and powerplant certificate 49

4. Minimum credits required 64

* Students must earn a C- grade or better in each course.

BUSINESS, APPLIED

College of Rural and Community Development
Department of Applied Business, Paralegal and Accounting
Community and Technical College
907-455-2800
www.ctc.uaf.edu/programs/abus/

AAS Degree
Minimum Requirements for Degree: 60 credits

Planning and preparation are the keys to success in business. The AAS degree in applied business provides students with the skills and training needed to run a business effectively. The program covers basic knowledge and skills, emerging technologies, advanced procedures and interpersonal skills. Courses teach the principles of accounting, management, human relations, math, communications, customer service, computers, law, finance and logic. Instructors provide a practical understanding of the marketplace — not just a textbook view of business.

Potential careers for graduates include entrepreneurship and mid-level positions in business management, tourism, human resources and public administration.

Major — AAS Degree

Concentrations: Administrative Management, Applied Management, Computer Applications, Entrepreneurship, Finance, Health Care Management, Human Resources, Management, Marketing, Public Management, Recreation and Guiding Management, and Tourism.

1. Complete the general university requirements (page 95).

2. Complete the AAS degree requirements. (See page 99. As part of the AAS degree requirements, it is recommended that students complete ABUS F154 for the human relations requirement.)

3. Complete the following general business requirements:*
   ABUS F101—Principles of Accounting I........................3
   ABUS F161—Personal and Business Finance......................3
   ABUS F175—Customer Service 3
   ABUS F179—Fundamentals of Supervision (3)
      or BA F307—Introductory Human Resource Management (3) 3
   ABUS F232—Contemporary Management Issues (3)
      or ECON F201—Principles of Economics I: Microeconomics (3)
      or ECON F202—Principles of Economics II:
      Macroeconomics (3)..3
   ABUS F241—Applied Business Law (3)
      or ABUS F242—Employment Law (3)
      or BA F317—Employment Law (3).............................3
   ABUS F260—Marketing Practices (3)
      or ABUS F263—Public Relations (3)
      or BA F343—Principles of Marketing (3) 3
   BA F151—Introduction to Business..............................3

4. Complete one of the following concentrations:*
   ### Administrative Management
   a. Complete the following:
   ABUS F102C—Keyboarding: Document Formatting.................1
   ABUS F116—Using 10-Key Calculators..........................1
   ABUS F134—Alphabetic Filing................................1
   ABUS F170—Business English.................................3
   ABUS F182—Office Procedures...............................3
   ABUS F264—Filing/Records Management........................3
   ABUS, CIOS or CITS electives appropriate to skill level.........3

   b. Choose 6 credits from the following:
   ABUS F183—Advanced Job Readiness..........................2
   ABUS F199—Practicum in Applied Business 1
   CIOS F130—Microcomputer Word Processing....................3
   CIOS F135—Microcomputer Spreadsheets 3
   CIOS F150—Computer Business Applications...................3

   ### Applied Management
   Complete one of the following (21 or more credits):
   a. A university-approved certificate; or
   b. A professional, technical or vocational license or certification issued by government or industry and 21 department-approved electives.

   ### Computer Applications
   Complete the following:
   CIOS F130—Microcomputer Word Processing....................3
   CIOS F135—Microcomputer Spreadsheets 3
   CIOS F240—Microcomputer Databases........................3
   CIOS F146—Using Internet Tools and Technologies (3)
      or CITS F220—Implementing Internet Tools and
      Technologies (3)...3
   CIOS F233—Desktop Publishing (3)
      or CIOS F255—Microcomputer Graphics (3) 3
   ABUS, ACCT, BA, CITS or CIOS electives........................6

Entrepreneurship
Complete the following:
ABUS F201—Principles of Accounting II (3)
   or ABUS F210—Income Tax (3)
   or ABUS F220—QuickBooks Accounting (3)
   or ABUS F221—Microcomputer Accounting (3)
   or ABUS F235—Fund Accounting for Non-Profits (3)..................3
ABUS F233—Financial Management (3)
   or ABUS F234—Introduction to Investing (3)..........................3
ABUS F265—Seminar in Applied Marketing......................3
ABUS F272—Small Business Planning...........................3
ABUS F273—Managing a Small Business.........................3
ABUS F274—E-commerce.....................................3
ABUS, ACCT, BA, CITS or CIOS electives........................3

Finance
Complete the following:
ABUS F160—Principles of Banking............................3
ABUS F201—Principles of Accounting II.......................3
ABUS F210—Income Tax....................................3
ABUS F220—QuickBooks Accounting (3)
   or ABUS F221—Microcomputer Accounting (3)..................3
ABUS F233—Financial Management...........................3
ABUS F234—Introduction to Investing 3
ABUS F272—Small Business Planning..........................3

Health Care Management
Complete the following:
HLTH F100—Medical Terminology............................3
HLTH F110—Professional Skills for the Workplace 2
HLTH F132—Administrative Procedures I......................2
HLTH F208—Human Diseases.................................3
HLTH F234—Administrative Procedures II......................4
HLTH F235—Medical Coding 4
HLTH F236—Outpatient Health Care Reimbursement 3

Human Resources
Complete the following:
ABUS F141—Payroll Accounting..............................3
ABUS F178—Professionalism.................................3
ABUS F231—Introduction to Personnel (3)
   or BA F307—Introductory Human Resource Management (3) 3
ABUS F242—Employment Law (3)
   or BA F317—Employment Law (3)...........................3
CIOS F135—Microcomputer Spreadsheets 3
CIOS F240—Microcomputer Databases........................3
ABUS, ACCT, BA or CIOS electives 3

Management
a. Complete the following:
ABUS, ACCT, BA, ECON, MATH or STAT or other
department-approved electives 21

b. Recommended courses include:
MATH F161X, MATH F262, ECON F100X, ECON F200, ECON F201, ECON F202, ECON F227, BA F254, STAT F200X, ABUS F201, ABUS F202, etc.

Marketing
Complete the following:
ABUS F178—Professionalism.................................3
ABUS F265—Seminar in Applied Marketing......................3
ABUS F274—E-commerce 3
CIOS F233-Desktop Publishing (3)
   or CIOS F255—Microcomputer Graphics (3) 3
CIOS or CITS F200-level or above Internet or web
design elective 3
ABUS, BA or CIOS electives 6

Public Management
Complete the following:
ABUS F235—Fund Accounting 3
PS F100X—Political Economy 3
PS F101—Introduction to American Government and Politics 3
PS F212—Introduction to Public Administration 3
PS F403W—Public Policy (3)
  or ABUS F242—Employment Law (3)
  or BA F317—Employment Law (3) 3
ABUS, ACCT, CIOS or PS electives 6

Recreation and Guiding Management
Complete the following:
ABUS F158—Introduction to Tourism 3
NRM F101—Natural Resources Conservation and Policy................3
NRM F161—Wilderness Leadership Education 3
EMS F152—Emergency Trauma Training First Responder (3)
  or EMS F195—Wilderness First Responder (3)
  or more advanced Emergency First Responder Training (3).........3
EMS F257—Arctic Survival (3)
  or NRM F361—Advanced Wilderness Leadership (3)....................3
RECR electives 6

Tourism
a. Complete the following:
ABUS F158—Introduction to Tourism 3
ABUS F199—Practicum in Applied Business 3
ABUS F265—Seminar in Applied Marketing 3
ABUS F273—Managing a Small Business 3

b. Complete 3 credits from the following electives:
ABUS F256—Small Hotel, Bed and Breakfast, and
Lodge Operations .... 1 – 3
ABUS F267—Transportation and Logistics Management .... 1 – 3
ABUS F268—Rural Tourism: Planning and Principles............... 1 – 3
ABUS F269—Food and Beverage Management........................... 1 – 3

c. Complete one of the following elective options:
Option 1
ABUS, ACCT, BA, CAH or CIOS electives...........................6
Option 2
ABUS F299—Practicum in Applied Business (Study Abroad)..........3
Foreign language 3

5. Minimum credits required 60
*   Students must earn a C- grade or better in each course.

Minors

Applied Business — General Business
1. Complete the following:
ABUS F101—Principles of Accounting I...............................3
ABUS F161—Personal and Business Finance.........................3
ABUS F175—Customer Service 3
ABUS F232—Contemporary Management Issues (3)
  or ABUS F272—Small Business Planning (3)
  or ABUS F273—Managing a Small Business (3) 3
ABUS F260—Marketing Practices (3)
  or ABUS F263—Public Relations (3) 3
BA F151—Introduction to Business.....................................3

2. Minimum credits required 18
Note: Other courses specific to individual education and career goals may be
  substituted with program approval.

Applied Business — Recreation and Guiding Management
1. Complete the following:
ABUS F158—Introduction to Tourism 3
ABUS F175—Customer Service 3
NRM F161—Wilderness Leadership Education 3
EMS F152—Emergency Trauma Training First Responder (3)
  or EMS F195—Wilderness First Responder (3)
  or more advanced Emergency First Responder Training (3).........3

2. Complete six credits from the following electives:
RECR electives (1 – 6)
  or NRM F361—Advanced Wilderness Leadership (3)
  or ABUS/NRM/RECR-approved practicum (1 – 6).......................6

3. Minimum credits required 18
Note: Other courses specific to individual education and career goals may be
  substituted with program approval.

BUSINESS MANAGEMENT, APPLIED

College of Rural and Community Development
Department of Applied Business, Paralegal and Accounting
Community and Technical College
907-455-2800
www.ctc.uaf.edu/programs/abus/

Certificate
Minimum Requirements for Certificate: 30 – 36 credits

Planning and preparation are keys to success in business. The applied business management certificate provides students with the basic principles necessary to run a business effectively. Graduates of the program will have the foundation of contemporary management skills needed to successfully lead private, public and non-profit organizations through ever-changing social and economic conditions.

The program covers basic knowledge and skills, emerging technologies, advanced procedures, and interpersonal skills. Course work includes accounting, management, human relations, math, communications, customer service, computers, law, finance and logic. The curriculum also serves as the first year of training toward the AAS degree in applied business.

Potential careers for graduates include entrepreneurship and entry-level positions in business management, tourism, human resources, public administration and office administration.

Certificate Program

Concentrations: Computer Applications, Finance, General Business, Human Resources, Marketing, Office Administration, Public Management, Recreational Guiding, Retail Management, and Tourism.

1. Complete the general university requirements (page 95).

2. Complete the following certificate requirements:
a. Complete 3 credits from the following communication courses:
ABUS F170—Business English (3)
  or ABUS F271—Business Communications (3)
  or ENGL F111X—Introduction to Academic Writing (3)
  or ENGL F212—Business, Grant and Report Writing (3) 3
b. Complete one of the following computation requirements:
ABUS F155—Business Math (3)
  or any MATH course at the F100-level or above (3).......................3
c. Complete an AAS-approved human relations course:
ABUS F154—Human Relations (recommended) 3

3. Complete the following general business courses:
ABUS F101—Principles of Accounting I..3
ABUS F161—Personal and Business Finance......................................3
BA F151—Introduction to Business...3

4. Complete one of the following concentrations:
Computer Applications
CIOS F130—Microcomputer Word Processing..................................3
CIOS F135—Microcomputer Spreadsheets 3
CIOS F240—Microcomputer Databases...3
CIOS F146—Using Internet Tools and Technologies (3)
  or CITS F220—Implementing Internet Tools and
Technologies (3)...3

Finance
ABUS F160—Principles of Banking 3
ABUS F210—Income Tax...3
ABUS F233—Financial Management...3
ABUS F234—Introduction to Investing 3

General Business
ABUS F201—Principles of Accounting II (3)
   or ABUS F210—Income Tax (3)
   or ABUS F220—QuickBooks Accounting (3)
   or ABUS F221—Microcomputer Accounting (3)
   or ABUS F235—Fund Accounting for Non-Profits (3)...................3
ABUS F179—Fundamentals of Supervision (3)
   or BA F307   Introductory Human Resource Management (3)....3
ABUS F232—Contemporary Management Issues (3)
   or ECON F201   Principles of Economics I: Microeconomics (3)
   or ECON F202   Principles of Economics II:
   Macroeconomics (3)...3
ABUS F260—Marketing Practices (3)
   or ABUS F263—Public Relations (3)
   or BA F343   Principles of Marketing (3)..3

Human Resources
ABUS F141—Payroll Accounting..3
ABUS F179—Fundamentals of Supervision 3
ABUS F231—Introduction to Personnel (3)
   or BA F307—Introductory Human Resource Management (3) 3
ABUS F242—Employment Law (3)
   or BA F317—Employment Law (3)...3

Marketing
ABUS F175—Customer Service 3
ABUS F178—Professionalism..3
ABUS F260—Marketing Practices (3)
   or ABUS F263—Public Relations (3)
   or BA F343—Principles of Marketing (3) 3
CIOS F200-level graphics or web design elective 3

Office Administration
a. Complete the following:
   ABUS F170—Business English 3
   ABUS F182—Office Procedures 3
b. Choose 6 credits from the following:
   ABUS F183—Advanced Job Readiness..2
   ABUS F199—Practicum in Applied Business 1
   CIOS F130—Microcomputer Word Processing..................................3
   CIOS F135—Microcomputer Spreadsheets 3
   CIOS F150—Computer Business Applications....................................3

Public Management
ABUS F235—Fund Accounting 3
PS F100X—Political Economy 3
PS F101—Introduction to American Government and Politics (3)
   or ABUS F232—Contemporary Management Issues (3)................3
PS F212—Introduction to Public Administration 3

Recreational Guiding
ABUS F175—Customer Service 3
NRM F161—Wilderness Leadership Education 3
EMS F152—Emergency Trauma Training First Responder (3)
   or EMS F195—Wilderness First Responder (3)
   or more advanced Emergency First Responder Training (3).........3
RECR electives 3

Retail Management
ABUS F179—Fundamentals of Supervision (3)
   or BA A231*—Fundamentals of Supervision (3) 3
ABUS F231—Introduction to Personnel..3
ABUS F260—Marketing Practices (3)
   or BA A260*   Marketing Practices (3) 3
BA A266*—Retailing Management...3
CIOS F150—Computer Business Applications (3)
   or CIOS A103*—Introduction to Personal Computers (3).............3
COMM F131X—Fundamentals of Oral Communication: Group
Context (3)
   or COMM F141X—Fundamentals of Oral Communication:
   Public Context (3)
   or COMM A111*—Fundamentals of Oral Communication (3)
   or CIOS A261A*—Interpersonal Skills in Organizations (3)
   or COMM A237*—Interpersonal Communication (3)
   or COMM F180—Introduction to Human Communication (3)...3

Tourism
ABUS F158—Introduction to Tourism 3
ABUS F175—Customer Service 3
ABUS F199—Practicum in Applied Business 3
ABUS F256—Small Hotel, Bed and Breakfast, and Lodge
Operations (1 – 3)
   or ABUS F267—Transportation and Logistics Management (1 – 3)
   or ABUS F268—Rural Tourism: Planning and Principles (1 – 3)
   or ABUS F269—Food and Beverage Management (1 – 3).............3

5.   Minimum credits required .... 30 – 36
Note: Other courses specific to individual education and career goals may be
*   substituted with program approval.*
*   *Courses offered via distance delivery from UAA*

COMMUNITY HEALTH

College of Rural and Community Development
Bristol Bay Campus 907-842-5109
Chukchi Campus 907-442-3400
Interior-Aleutians Campus 907-474-5439
Kuskokwim Campus 907-543-4500
Northwest Campus 907-443-2201
Community Health Aide/Practitioner Training Centers:
Anchorage CHA Training Program, ANTHC 907-729-2427
Norton Sound Health Corp., Nome 907-443-3404
Southeast Alaska Regional Health Corp., Sitka 907-966-8758
Yukon-Kuskokwim Health Corp., Bethel 907-543-6120

Certificate; AAS Degree

Minimum Requirements for Certificate: 34 credits;
for Degree: 60 credits

The community health aide/practitioner (CHA/P) training program prepares students to provide primary health care services in villages, under the supervision of a referral physician. As a prerequisite, students entering the program must be employed by a regional health corporation.

    The educational program consists of four basic training sessions, each four weeks long and followed by a field component in the CHA's village clinic. The curriculum includes the knowledge and skills necessary to provide acute care for common medical problems, emergency care, follow-up care for patients with chronic illnesses, and preventive services including prenatal and well-child care. The training also includes state-approved emergency care courses, completion of a skills checklist, a supervised clinical preceptorship, and passing the CHP statewide examination.

    Upon successful completion of all certification requirements, students are awarded a community health practitioner (CHP) certificate by the training center. Students completing the training program

CERTIFICATES & ASSOCIATE DEGREES

also meet the requirements for a university certificate recognizing the credits earned. These credits may be used to satisfy requirements for the AAS degree.

The CHA/P academic review committee (ARC), composed of representatives from the regional health corporations, training centers and university, ensures that the curriculum and certification process is kept uniform throughout the state. The ARC reports to the Association of CHA/P Program Directors and serves in an advisory role to the dean of the College of Rural and Community Development.

For more information about the CHA/P basic training program, contact one of the CHA/P training centers. For more information about the AAS degree, contact the College of Rural and Community Development health programs office at 907-455-2050 or 866-955-2050.

Certificate Program

1. Complete the general university requirements (page 95).

2. Complete the certificate requirements. (See page 97. As part of the certificate requirements, the communication, computation and human relations content is embedded in some of the major required courses for this program.)

3. Complete the following:
   CHP F131—Community Health Aide, Session I 8
   CHP F132—Community Health Aide, Session II 8
   CHP F133—Community Health Aide, Session III...............................8
   CHP F134—Community Health Aide, Session IV................................8
   CHP F135—Community Health Aide, Preceptorship.........................2

4. Minimum credits required 34
   Note: The student may take CHP F082 prior to CHP F131 as an option when regionally available.

Major — AAS Degree

1. Complete the general university requirements (page 95).

2. Complete the AAS degree requirements (page 99).

3. Complete the following program (major) requirements:*
   a. Complete the following:
      CHP F131—Community Health Aide, Session I 8
      CHP F132—Community Health Aide, Session II 8
      CHP F133—Community Health Aide, Session III...............................8
      CHP F134—Community Health Aide, Session IV................................8
      CHP F135—Community Health Aide, Preceptorship.........................2
   b. Complete 5 or more credits from the following:
      CHP F203—Clinical Update for Community Health
      Practitioners.. 1 – 3
      CHP F206—Mental Health and Substance Abuse .... 1 – 3
      CHP F207—Maternal and Infant Health.................................... 1 – 3
      CHP F208—Communicable Diseases... 1 – 3
      CHP F211—Health Education... 1 – 3
      CHP F212—Diabetes: Primary Prevention and Village
      Medical Care .... 1 – 3
      CHP F214—Cancer: Risks, Diagnosis and Treatment........................3
      CHP F215—Death and Dying 3
      CHP F220—Women's Health: Breast and Cervical Cancer
      Screening 2
      CHP F250—Current Issues in Rural Health Care** .... 1 – 3
      CHP F293—Special topic courses
      EMS—any F200-level courses
      HLTH—any F200-level courses

4. Complete electives..6

5. Minimum credits required 60
   * Students must earn a C- grade or better in each course.
   ** May repeat up to 3 credits toward AAS degree.

CONSTRUCTION MANAGEMENT

College of Rural and Community Development
Community and Technical College
907-455-2846
www.ctc.uaf.edu/programs/cm/

AAS Degree
Minimum Requirements for Degree: 65 credits

The construction management program meets growing needs in 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 oversight of construction projects. They are responsible for coordinating and managing people, materials and equipment; budgets, schedules and contracts; and the 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 to maximize profitability. 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 — for public and private owners; on small multi-family projects to the largest of skyscrapers and industrial projects; and on 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.

UAF's construction management program was developed with input from local contractors and professional industry organizations. It provides students with a broad knowledge of building systems and construction techniques. CM graduates understand basic principles of business and know about the technical aspects of the construction industry. Graduates are able to function both in the construction office and on the job site.

The CM AAS degree requires four to five semesters to complete. While not a prerequisite, it is recommended that students applying for admission have experience in the construction industry.

Major — AAS Degree

1. Complete the general university requirements (page 97).

2. Complete the AAS degree requirements. (See page 99. As part of the AAS degree requirement complete ENGL F111X, ENGL F212 and COMM F131X or COMM F141X for the communications requirement, and MATH F107X for the computation requirement. The human relations content is embedded in some of the major required courses for this program.)

3. Complete the following program (major) requirements:*
   ABUS F101—Principles of Accounting I............................3
   ABUS F201—Principles of Accounting II...........................3
   CM F102—Methods of Building Construction 3
   CM F123—Codes and Standards 3
   CM F142—Mechanical and Electrical Technology 4
   CM F163—Building Construction Cost Estimating...........3
   CM F201—Construction Project Management 3
   CM F202—Project Planning and Scheduling 3
   CM F205—Construction Safety..3
   CM F213—Civil Technology 4
   CM F231—Structural Technology....................................4
   CM F263—Civil Construction Cost Estimating… 3
   CM F299—Construction Management Internship..............3
   DRT F170—Beginning AutoCAD......................................3
   MATH F108—Trigonometry 3
   PHYS F103X—College Physics 4

4. Minimum credits required 65
   * Students must earn a C- grade or better in each course.

CONSTRUCTION TRADES TECHNOLOGY

College of Rural and Community Development
Interior-Aleutians Campus
907-474-5439
www.uaf.edu/iac/

Certificate; AAS Degree
Minimum Requirements for Certificate: 36.5 credits;
for Degree: 70 – 73 credits

The construction trades technology program is designed to prepare students to work in the construction industry. The program prepares students for employment in areas where there is a projected shortage of skilled workers

    This program provides students with fundamental knowledge of construction industry expectations as well as hands-on training. It responds to the skills targeted by Alaskan employers. Students completing the certificate program will have completed the first year of the AAS degree program. Graduates of the AAS degree program may pursue opportunities with employers as they acquire a higher level of residential construction trade and/or residential construction management skills.

    A strong desire to work in the construction industry is important. Students must be willing to work collaboratively with industry employees in their local communities in order to fulfill the practicum components of courses.

Certificate Program

1. Complete the general university requirements (page 95).

2. Complete the certificate requirements. (See page 97. As part of the certificate requirement, complete 3 credits each in the communication and human relations requirements.)

3. Complete 3 credits from one of the following computation courses:
CTT F106—Construction Mathematics (3)
    or TTCH F131—Mathematics for the Trades (3) 3

4. Complete the following program (major) requirements:
CTT F100—Construction Technology Core (3)
    or CTT F101—Basic Construction Safety (1)
    and CTT F102—Introduction to Hand and Power Tools (1)
    and CTT F103—Introduction to Blueprint Reading (1)
CTT F110—Residential Carpentry — Level One (8.5)
    or CTT F111—Materials and Tools Used in the Trade (2.5)
    and CTT F112—Floor Systems, Wall and Ceiling Framing (2)
    and CTT F113—Roof Framing, Windows and Exterior Doors (2)
    and CTT F114—Introduction to Concrete Materials and
    Forms (2) 8.5
CTT F115—Residential Carpentry — Level Two (12)
    or CTT F116—Reading Plans and Site Layout — Level One (2)
    and CTT F117—Exterior Finish and Moisture Protection (2)
    and CTT F118—Roofing, Stairs and Metal Studs Applications (3)
    and CTT F119—Drywall and Interior Finish Applications (5) ...12
CTT F199—Student Practicum I 3
HLTH F122—First Aid and CPR..1

5. Minimum credits required 36.5

Major — AAS Degree

1. Complete the general university requirements (page 95).

2. Complete the AAS degree requirements. (See page 99. As part of the degree requirements, complete CTT F106 or TTCH F131 for the computation requirement.)

3. Complete the construction trades technology program (major) requirements.

4. Complete one the following concentrations:*
Residential Construction
CTT F150—Plumbing — Level One 4
CTT F155—Plumbing — Level Two 8
CTT F170—Residential Electrical — Level One................................9
CTT F175—Residential Electrical — Level Two..............................8
CTT F299—Student Practicum II...1.5
Residential Construction Project Management
CIOS F150—Computer Business Applications..................................3
CM F205—Construction Safety..3
CTT F104—Basic Communication and Employment Skills 2
CTT F240—Introduction to Project Development for Rural
Residential Construction 3
CTT F241—Introduction to Estimating, Cost Control,
Quality Controls and Residential Construction...........................3
CTT F299—Student Practicum II...1.5
TM F105—Introduction to Tribal Finance Applications 3

5. Complete 3 credits of tribal management-approved electives from the following courses:
TM F101—Introduction to Tribal Management (3)
    or TM F201—Advanced Tribal Management (3)
    or TM F205—Advanced Tribal Finance (3)
    or other CTT advisor-approved TM course (3) 3

6. Complete 6 additional credits of CTT elective courses not taken to fulfill the AAS requirement. 6

7. Minimum credits required .... 70 – 73
*   *Students must earn a C- grade or better in each course.*

CULINARY ARTS AND HOSPITALITY

College of Rural and Community Development
Community and Technical College
907-455-2800
www.ctc.uaf.edu/programs/culinary/

Certificate; AAS Degree
Minimum Requirements for Certificates: 30 credits;
for Degree: 60 credits

The Culinary Arts and Hospitality Department prepares students for careers in this ever-expanding field. Graduates can seek employment in various food service operations or in management of restaurants, bakeries, hotels, hospitals, camps or any other facility that requires food service as part of its operation. Certificates in culinary arts or baking and pastry arts as well as an associate degree in culinary arts are offered.

Certificate Program — Culinary Arts

1. Complete the general university requirements (page 95).

2. Complete the certificate requirements. (See page 97. As part of the certificate requirements, CAH F256 is recommended to complete the computation requirement and CAH F255 is recommended to complete the human relations requirement.)

3. Complete the following:
CAH F101—Introduction to the Culinary Field..............................1
CAH F140—Culinary I — Principles and Techniques.....................4
CAH F146—Introduction to Baking and Pastry 4
CAH F150—Food Service Sanitation...2

4. Complete 10 – 13 credits from the following:
CAH F141—Culinary II — Stocks, Soups and Sauces 4
CAH F154—Food and Beverage Service...2
CAH F160—Principles of Nutrition...2
CAH F170—Gourmet Cooking..2
CAH F172—Gourmet Asian Cooking 2
CAH F174—Vegetarian Cooking...2

CAH F175—Protein Fabrication...3
CAH F176—Heart Healthy and Diabetic Cooking............................2
CAH F230—Menu Planning 1
CAH F242—Culinary III — Vegetables and Starch........................2
CAH F243—Culinary IV — À la Carte Cookery 4
CAH F250—Garde-Manger 4

5. Minimum credits required 30

Certificate Program — Baking and Pastry Arts

1. Complete the general university requirements (page 95).

2. Complete the certificate requirements. (See page 97. As part of the certificate requirements, CAH F256 is recommended to complete the computation requirement and CAH F255 is recommended to complete the human relations requirement.)

3. Complete the following:
CAH F101—Introduction to the Culinary Field.................................1
CAH F140—Culinary I — Principles and Techniques 4
CAH F146—Introduction to Baking and Pastry 4
CAH Fl50—Food Service Sanitation..2
CAH F248—Intermediate Baking and Pastry 4

4. Choose 6 – 9 credits from the following:
CAH F117—Art in Cake Icing 2
CAH F154—Food and Beverage Service......................................2
CAH F160—Principles of Nutrition 2
CAH F161—Pastry Tube Art...1.5
CAH F171—Gourmet Baking...2
CAH F176—Heart Healthy and Diabetic Cooking............................2
CAH F180—Artisan Breads..2
CAH F181—International Breads 2
CAH F230—Menu Planning 1

5. Minimum credits required 30

Major — AAS Degree

1. Complete the general university requirements (page 95).

2. Complete the AAS degree requirements. (See page 99. As part of the degree requirement, CAH F255 is recommended to complete the human relations requirement.)

3. Complete the following program (major) requirements:*
CAH F101—Introduction to the Culinary Field.................................1
CAH F140—Culinary I — Principles and Techniques 4
CAH F141—Culinary II — Stocks, Soups and Sauces 4
CAH F146—Introduction to Bakery and Pastry 4
CAH F150—Food Service Sanitation.......................................2
CAH F154—Food and Beverage Service......................................2
CAH F160—Culinary Nutrition 2
CAH F175—Protein Fabrication 3
CAH F199—Culinary Arts Externship......................................2
CAH F230—Menu Planning 1
CAH F242—Culinary III — Vegetables and Starches 4
CAH F243—Culinary IV — À la Carte Cookery 4
CAH F248—Intermediate Baking and Pastry 4
CAH F250—Garde-Manger 4
CAH F253—Storeroom Purchasing and Receiving 2
CAH F256—Restaurant and Hospitality Cost Management............2

4. Minimum credits required 60
* Students must earn a C- grade or better in each course.

DENTAL HYGIENE

College of Rural and Community Development
Community and Technical College
907-455-2834
www.ctc.uaf.edu/programs/health/dh/

AAS Degree
Minimum Requirements for AAS Degree: 69 credits

The registered dental hygienist is a licensed oral health educator and clinical operator who uses preventive, educational and therapeutic methods to help individuals and groups attain and maintain optimum oral health. The dental hygiene AAS degree is a three-year program with one year of prerequisite 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. Once enrolled as a dental hygiene student, the student can anticipate a four-semester, 40-hour-per-week intensive program. Some evening classes and clinics are scheduled.

The dental hygiene program has received initial accreditation from the Commission on Dental Accreditation of the American Dental Association.

Admission Requirements
Admission to the dental hygiene program is competitive. Six students per year are accepted, based on the following criteria:

1. Complete UAF application.

2. Complete dental hygiene program application.

3. Proof of immunity to rubella, rubeola, varicella, hepatitis A, hepatitis B, tetanus, diphtheria and pertussis.

4. Evidence of freedom from tuberculosis by PPD or chest X-ray within the previous six months.

5. Current CPR certification for health care providers.

6. Complete the required prerequisite with a C or better in each course, and an overall GPA of at least 2.5. GPA is considered in the admission criteria.

7. Scores on the Health Occupational Basic Entrance Test (HOBET).

8. Personal interview for top-tier candidates.

9. Complete prerequisite courses**:
BIOL F213X—Human Anatomy and Physiology I 4
BIOL F214X—Human Anatomy and Physiology II............................4
BIOL F240—Beginnings in Microbiology 4
CHEM F103X—Basic General Chemistry 4
CHEM F104X—Beginnings in Biochemistry: A Survey of Organic Chemistry and Biochemistry 4
HLTH F203—Science of Nutrition 3
PSY F101—Introduction to Psychology 3
** *Courses with equivalent content transferred from another university may be substituted for the above UAF courses.*
Note: Additional information and a complete application packet are available at 907-455-2834 or 907-455-2805, fydh@uaf.edu, or **www.ctc.uaf.edu/programs/health/dh/**. *It is strongly recommended that interested students work with the dental hygiene advisor while preparing to apply to the program.*

Major — AAS Degree

1. Complete the general university requirements (page 95).

2. Complete the AAS degree requirements. (See page 99. As part of the degree requirements, complete SOC F100X for the human relations requirement.)

3. Complete the following program (major) requirements:*
DA F150—Dental Radiography...4
DH F111—Dental Anatomy Embryology and Histology....................2

DH F112—Techniques I for Dental Hygienists 7
DH F114—Anatomy of the Orofacial Structures 2
DH F121—Periodontics I 2
DH F122—Techniques II for Dental Hygienists 4
DH F165—Introduction to Dental Pharmacology 2
DH F181—Clinical Practicum I 4
DH F182—Clinical Seminar I 1
DH F211—Periodontics II 2
DH F212—Techniques III for Dental Hygienists 3
DH F214—Pathology of Oral Tissues 2
DH F224—Principles of Dental Health 3
DH F283—Clinical Practicum II for Dental Hygienists 5
DH F284—Clinical Seminar II 1
DH F285—Clinical Practicum III for Dental Hygienists 6
DH F286—Clinical Seminar III 1
DH F310—Oral Pain Control for Dental Hygienists 3

4. Minimum credits required 69
*   Students must earn a C- grade or better in each course.

DIESEL/HEAVY EQUIPMENT

College of Rural and Community Development
Community and Technical College
907-455-2809
www.ctc.uaf.edu/programs/diesel/

Certificate
Minimum Requirements for Certificate: 36 credits

The diesel and heavy equipment mechanics program offers the student training in the maintenance and repair of trucks, buses and heavy equipment. This one-year certificate program emphasizes hands-on training and in-class experience as students perform preventive maintenance inspections, determine causes of equipment problems and make necessary repairs and adjustments from tune-ups to complete engine and equipment overhauls. Students work on large truck fuel, electrical and air systems, diesel engines, transmissions, differentials, crawler tractor undercarriages, steering and final drives. A student may request credit by examination for any DSLT or MECN class. See department coordinator for details.

Certificate Program

1. Complete the general university requirements (page 95).

2. Complete the certificate requirements. (See page 97. As part of the certificate requirements, the communication, human relations, and computation content is embedded in the major required courses for this program.)

3. Complete the following program (major) requirements:*
DSLT F101—Safety Including Rigging and Lifting 1
DSLT F103—Basic Equipment and Truck Operation 1
DSLT F105—Preventive Maintenance 3
DSLT F107—Basic Electrical Systems and Electrical
Fuel Injection 3
DSLT F110—Basic Industrial Fabrication 2
DSLT F111—Diesel Emissions 2
DSLT F123—Heavy Duty Braking Systems 3
DSLT F154—Diesel Fuel Injection 3
DSLT F201—Manual Transmissions and Differentials 3
DSLT F202—Heavy Duty Automatic Transmissions 2
DSLT F210—Heavy Equipment Fabrication 2
DSLT F254—Engine 5
MECN F103—Starting and Charging Systems 3
MECN F210—Hydraulics 3

4. Minimum credits required 36
*   Students must earn a C grade or better in each course.

DRAFTING TECHNOLOGY

College of Rural and Community Development
Community and Technical College
907-455-2845
www.ctc.uaf.edu/programs/drafting/

Certificate; AAS Degree
Minimum Requirements for Certificate: 33 – 34 credits;
for Degree: 60 – 63 credits

The drafting technology programs combine focused training in computer-aided drafting with a well-rounded exposure to the professions, trades and materials common to construction in Alaska. Courses combine technical CAD training with the vocabulary and knowledge needed to communicate with future employers in the architectural, engineering and construction fields. Students develop skills in mathematics, drawing and multi-functional CAD techniques. Students are instructed in traditional drawing techniques, CAD, and building information modeling technologies, giving them the knowledge and flexibility to work traditionally and with the most recent drafting technologies. Required courses cover many aspects of design and construction, including building materials, codes, and civil, mechanical, electrical and structural technologies. Qualified students have the opportunity to work side-by-side with professionals from the architectural and engineering community in internships, gaining valuable on-the-job experience.

Students entering the certificate program are expected to have computer skills equivalent to CIOS F150.

Certificate Program

1. Complete the general university requirements (page 95).

2. Complete the certificate requirements (page 97).

3. Complete the following certificate requirements:
DRT F101—Introduction to Drafting 3
DRT F121—Construction Documents and Drawings 3
DRT F170—Beginning CAD 3
DRT F210—Intermediate CAD 3
DRT F270—Advanced CAD 3

4. Complete one of the following concentrations:
 a. **Architectural Drafting**
   CM F102—Methods of Building Construction 3
   CM F123—Codes and Standards 3
   DRT F140—Architectural Drafting 3
 b. **Civil Drafting**
   CM F102—Methods of Building Construction 3
   CM F213—Civil Technology 4
   DRT F150—Civil Drafting 3
 c. **Information Technology**
   CITS F203—Information Technology Support
   Fundamentals 4
   CITS F204—Introduction to Network Support and
   Administration 3
   CITS F261—Computer and Network Security 3
 d. **Mechanical and Electrical Drafting**
   CM F102—Methods of Building Construction 3
   CM F142—Mechanical and Electrical Technology 4
   DRT F155—Mechanical and Electrical Drafting 3
 e. **Process Technology**
   PRT F101—Introduction to Process Technology 3
   PRT F110—Introduction to Occupational Safety, Health and
   Environmental Awareness 3
   PRT F117—Drafting for Technicians 3

f. Structural Drafting

CM F102—Methods of Building Construction 3
CM F231—Structural Technology...4
DRT F145—Structural Drafting...3

5. Minimum credits required .... 33 – 34

Note: DRT F260 Drafting Internship may be substituted for concentration-specific DRT courses with program approval.

Major – AAS Degree

1. Complete the general university requirements (page 95).

2. Complete the AAS degree requirements (page 99).

3. Complete the following program (major) requirements:*
DRT F101—Introduction to Drafting...3
DRT F140—Architectural Drafting..3
DRT F150—Civil Drafting...3
DRT F170—Beginning CAD..3
DRT F210—Intermediate CAD...3
DRT F270—Advanced CAD...3
DRT F145—Structural Drafting...3
DRT F155—Mechanical and Electrical Drafting..................................3
CM F102—Means and Methods of Building Construction 3
CM F123—Codes and Standards..3
CM F142—Mechanical and Electrical Technology 4
CM F213—Civil Technology 4
CM F231—Structural Technology 4

4. Complete 3 – 6 credits from the following electives:
DRT F121—Construction Documents and Drawings 3
DRT F260—Drafting Internship.. 3 – 6
CM F201—Construction Project Management 3
ES F101—Introduction to Engineering**...3

5. Minimum credits required .... 60 – 63

*   Students must earn a C- grade or better in each course
**   This elective requires additional math prerequisites.

EARLY CHILDHOOD EDUCATION

College of Rural and Community Development
Bristol Bay Campus 907-842-5109
Chukchi Campus 907-442-3400
Interior-Aleutians Campus 907-474-5207
Kuskokwim Campus 907-543-4500
Northwest Campus 907-443-2201
Community and Technical College 907-455-2883
www.ctc.uaf.edu/programs/e-childhood/

Certificate; AAS Degree

Minimum Requirements for Certificate: 34 credits;
for Degree: 60 credits

This program prepares students for employment as early childhood and child care providers and improves the skills of those already employed in the field. Graduates pursue opportunities with child care centers, head start programs, early childhood education programs, child welfare service agencies, scouting services, staff training, program licensing and public school teacher aide programs. This program meets standards specified by the National Association for the Education of Young Children and leads to state certification as an Early Childhood Education Associate II.

The certification program in early childhood is for students enrolling in college for the first time as well as for those who are educated in other subject areas but desire retraining for employment in this field. Through course work, students gain the knowledge and skills they need to pursue the field-based Child Development Associate Credential and to meet State of Alaska requirements for employment as directors or teachers in licensed centers. Course work also fulfills minor or concentration requirements for degrees in other disciplines.

Students entering either the AAS degree or certificate program should meet with an early childhood advisor to discuss a specific course of study. The required early childhood courses offered by any of the UAF campus sites may be used to meet graduation requirements for the certificate or degree.

An agreement between the UAF College of Rural and Community Development and the University of Alaska Southeast allows students in rural locations to take courses in early childhood education and obtain an AAS degree via distance delivery. Students should contact their advisor for assistance with the selection of general education courses and electives that meet the degree requirements of their campus. The courses for the certificate and AAS degree lay the foundation for the BA in Child Development and Family Studies.

Certificate Program

1. Complete the general university requirements (page 95).

2. Complete the following certificate requirements:
   a. Complete the following communication courses:
   ENGL F111X—Introduction to Academic Writing.............................3
   b. Complete one of the following computation courses:
   ECE F117—Math Skills for Early Childhood Educators (3)
      or any math course at the F100-level or above................................3
   c. Complete the following human relations course:*
   ECE F107—Child Development II: The Preschool and
   Primary Years 3

3. Complete the following program (major) requirements:*
ECE F101—Introduction to Early Childhood Profession..................3
ECE F104—Child Development I: Prenatal, Infants and
Toddlers 3
ECE F110—Safe, Healthy, Learning Environments 3
ECE F119—Curriculum I: Principles and Practices...........................3
ECE F213—Curriculum II: Thinking, Reasoning and
Discovering (3)
   or ECE F214—Curriculum III: Infants and Toddlers (3) 3
ECE F229—Foundations in Nutrition and Physical Wellness..........3
ECE F132—Young Child and the Family 1
ECE F140—Positive Social Development (3).......................................3
ECE F170—Practicum I (3)
   or ECE F115—Responsive and Reflective Teaching (3)
   or ECE F299—Practicum for CDAs (3)...3

4. Minimum credits required 34

*   Students must earn a C- grade or better in each course.

Major — AAS Degree

1. Complete the general university requirements (page 95).

2. Complete the AAS degree requirements. (See page 99. As part of the AAS degree requirement, complete ECE F117 or any course at the F100-level or above in mathematical sciences for the computation requirement, and ECE F107 for the human relations requirement.)

3. Complete the following:*
ECE F101—Introduction to Early Childhood Profession..................3
ECE F104—Child Development I: Prenatal, Infants and Toddlers...3
ECE F110—Safe, Healthy, Learning Environments 3
ECE F119—Curriculum I: Principles and Practices...........................3
ECE F213—Curriculum II: Thinking, Reasoning and
Discovering (3)
   or ECE F214—Curriculum III: Infants and Toddlers (3) 3
ECE F229—Foundations in Nutrition and Physical Wellness..........3
ECE F140—Positive Social and Emotional Development 3
ECE F170—Practicum I (3)
   or ECE F115—Responsive and Reflective Teaching (3)
   or ECE F299—Practicum for CDAs (3)...3
ECE F210—Child Guidance 3
ECE F235—Screening, Assessment and Recording 2

ECE F230—Introduction to Children with Special Needs (3)
    or ECE F240—Inclusion of Children with Special Needs (3) 3
ECE F242—Child and Family Ecology (3)
    or ECE F342—Family Relationships (3)
    or other advisor-approved family class..........................3
ECE F270—Practicum II 3

4.   Complete 7 credits as designated by an ECE advisor/coordinator....7

5.   Minimum credits required 60
*   *Students must earn a C- grade or better in each course.*

Minor

1.   Complete the following:
ECE F101—Introduction to Early Childhood Profession...................3

2.   Complete 15 ECE credits, including a minimum of 6 upper-division ECE credits and excluding special topics (ECE X93) and current issue (ECE F249) courses...................15

3.   Minimum credits required 18

EDUCATOR: PARA-PROFESSIONAL

College of Rural and Community Development
Interior-Aleutians Campus
907-474-5439
www.uaf.edu/iac/

Certificate; AAS Degree

This degree program is presently suspended.

EMERGENCY SERVICES

College of Rural and Community Development
Community and Technical College
907-455-2853
www.ctc.uaf.edu/programs/emergency/

AAS Degree
Minimum Requirements for Degree: 63 – 69 credits

The UAF emergency services program provides classroom education, hands-on training and practical vocational experience through 10 local fire and rescue organizations. The program offers students a fundamental working knowledge of the various aspects of municipal fire, wildland fire, and hazardous materials control.

Instructors provide a high level of technical expertise on a variety of specialty emergency services. The primary goal of this program is to make our students the most attractive candidates for job openings and promotions within fire and other emergency services fields.

Associate degrees in municipal fire control, wildlands fire control, hazardous materials and public safety are offered.

Major — AAS Degree

Concentrations: Hazardous Materials Control, Municipal Fire Control, Public Safety and Wildland Fire Control

Hazardous Materials Control

1.   Complete the general university requirements (page 95).

2.   Complete the AAS degree requirements (page 99). Complete the following program (major) requirements:*
  a. Complete the following:
    EMS F170—EMT: Emergency Medical Technician I 6
    FIRE F110—Introduction to Hazardous Waste Operations and Emergency Response.........................3
    FIRE F121—Fire Behavior and Combustion 3
    FIRE F131—Fire Fighter I Series I.........................3

FIRE F133—Fire Fighter I Series II..................3
FIRE F135—Fire Fighter I Series III 3
FIRE F137—Fire Fighter I Series IV 3
FIRE F203—Hazardous Materials Chemistry I..................3
FIRE F205—Hazardous Materials Chemistry II..................3
FIRE F207—Hazardous Materials Technician..................3
FIRE F209—Hazardous Materials Command/Safety Officer 3
FIRE F210—Fire Administration I 3
  b. Complete 9 credits from the following major elective courses:
    FIRE F212—Building and Fire Codes 3
    FIRE F215—Advanced Hazardous Materials Technician..................3
    FIRE F216—Methods of Instruction for Emergency Services Training..................3
    FIRE F231—Hazardous Materials Tactical Operations..................3
    FIRE F249—Computer Aided Management of Emergency Operations..................3
    FIRE F293—Special Topics..................3

3.   General electives 6

4.   Minimum credits required 69
*   *Students must earn a C- grade or better in each course.*
Note: Major electives and general electives must be approved by the student's advisor.

Municipal Fire Control

1.   Complete the general university requirements (page 95).

2.   Complete the AAS degree requirements (page 99).

3.   Complete the following program (major) requirements:*
  a. Complete the following:
    EMS F170—EMT: Emergency Medical Technician I 6
    FIRE F101—Principles of Emergency Services 3
    FIRE F105—Fire Prevention 3
    FIRE F107—Strategy and Tactics..................3
    FIRE F117—Rescue Practices 3
    FIRE F121—Fire Behavior and Combustion 3
    FIRE F131—Fire Fighter I Series I..................3
    FIRE F133—Fire Fighter I Series II..................3
    FIRE F135—Fire Fighter I Series III..................3
    FIRE F137—Fire Fighter I Series IV 3
    FIRE F202—Fire Protection Hydraulics and Water Supply..................3
    FIRE F203—Hazardous Materials Chemistry I..................3
    FIRE F206—Building Construction for Fire Protection..................3
    FIRE F210—Fire Administration I 3
    FIRE F214—Fire Protection Systems..................3
  b. Complete 6 credits from the following major specialty electives:
    FIRE F115—Fire Apparatus and Equipment..................3
    FIRE F123—Fire Investigations I 3
    FIRE F151—Wildland Fire Control I..................3
    FIRE F205—Hazardous Materials Chemistry II..................3
    FIRE F207—Hazardous Materials Technician..................3
    FIRE F212—Building and Fire Codes 3
    FIRE F216—Methods of Instruction for Emergency Services Training..................3
    FIRE F218—Advanced Rescue Practices 3
    FIRE F232—Fire Fighter II 3
    EMS F261—EMT: Emergency Medical Technician II..................3

4.   Minimum credits required 69
*   *Students must earn a C- grade or better in each course.*
Note: Major electives must be approved by the student's advisor.

Public Safety

1.   Complete the general university requirements (page 95).

2.   Complete the AAS degree requirements (page 99).

CERTIFICATES & ASSOCIATE DEGREES

3. Complete the following program (major) requirements:*

a. Complete the following:

AVTY F231/EMS F257—Arctic Survival 3
EMS F170—EMT: Emergency Medical Technician I 6
EMS F176—Aeromedical Evacuations in Alaska 1
FIRE F101—Principles of Emergency Services 3
FIRE F105—Fire Prevention 3
FIRE F117—Rescue Practices 3
FIRE F127—Vessel Safety: Emergency Equipment
and Procedures 1
FIRE F131—Firefighter I, Series I 3
FIRE F133—Firefighter I, Series II 3
FIRE F135—Firefighter I, Series III 3
FIRE F137—Firefighter I, Series IV 3
FIRE F218—Advanced Rescue Practices 3
JUST F110—Introduction to Justice 3
JUST F340—Rural Justice in Alaska 3
JUST F358—Juvenile Delinquency 3

b. Complete 9 credits from the following major electives:

EMS F261—EMT: Emergency Medical Technician II 3
FIRE F123—Fire Investigations I 3
FIRE F151—Wildland Fire Control I 3
FIRE F212—Building and Fire Codes 3
FIRE F216—Methods of Instruction for Emergency
Services Training 3
JUST F345W—Police Problems 3
JUST F352—Criminal Law 3
JUST F354—Procedural Law 3

4. Minimum credits required 68
* Students must earn a C- grade or better in each course.

Wildland Fire Control

1. Complete the general university requirements (page 95).

2. Complete the AAS degree requirements (page 99).

3. Complete the following program (major) requirements:*

a. Complete the following:

EMS F170—EMT: Emergency Medical Technician I 6
FIRE F151—Wildland Firefighter I 3
FIRE F152   Wildland Firefighter II 3
FIRE F153—Wildland Firefighter III 2
FIRE F154   Basic Wildland Fire Safety 1.5
FIRE F155—Wildland Fire Behavior I 2
FIRE F157—Wildland Air Operations 3
FIRE F159—Wildland Fire Interface Operations 2
FIRE F176   Wildland Fire Ignition Operations 1
FIRE F251   Wildland Firefighter IV 3
FIRE F252—Wildland Fire Prevention I 3
FIRE F254—Incident Finance and Administration 1.5
FIRE F255—Wildland Fire Behavior II 2

b. Complete 15 credits from the following major elective courses:*

FIRE F161—Incident Logistics Function 2
FIRE F163   Wildland Fire Dispatch I 2
FIRE F165—ICS and the Incident Planning Function 2
FIRE F170   Introduction to Incident Information 2
FIRE F216—Methods of Instruction for Emergency
Services Training 3
FIRE F253   Wildland Fire Investigation I 3
FIRE F257—Wildland Fire Helicopter Management 2
FIRE F262—Wildland Fire Tactical Operations 2
FIRE F264—Incident Business Practices 1.5
FIRE F276   Prescribed Fire I 2
FIRE F277   Prescribed Fire II 2
FIRE F279   Prescribed Fire III 2

4. Minimum credits required 63
* Students must earn a C- grade or better in each course.
Note: Major electives and general electives must be approved by the student's advisor.

Minor

1. Complete the following:

FIRE F131—Firefighter I, Series I 3
FIRE F133—Firefighter I, Series II 3
FIRE F135—Firefighter I, Series III 3
FIRE F137—Firefighter I, Series IV 3
EMS F170—Emergency Medical Technician I 6

2. Minimum credits required 18

ENVIRONMENTAL STUDIES

College of Rural and Community Development
Bristol Bay Campus
907-842-5109
www.uaf.edu/bbc/

Certificate

Minimum Requirements for Certificate: 34 – 39 credits

This program addresses many of the environmental issues influencing Alaska communities and provides basic academic preparation for entry-level vocational environmental careers. The program serves as a stepping-stone into science-related associate or baccalaureate programs.

This program may be especially of interest to individuals employed by, and/or interested in employment with state, federal or tribal agencies or other groups providing natural resource management services. It is recommended that students have completed a high school lab-based science, biology or chemistry course as well as algebra due to the science focus of this program.

Certificate Program

1. Complete the general university requirements (page 95).

2. Complete the certificate requirements (page 97).*

3. Complete the following:

a. Complete one of the following communication courses:
ENGL F111X—Introduction to Academic Writing (3)
or ABUS F170—Business English (3) 3

b. Complete the following:
DEVM F105—Intermediate Algebra (3)
or MATH/CS/STAT at the 100 level or higher 3

c. Complete one of the following human relations courses:
ANTH F100X/SOC F100X—Individual, Society and Culture (3)
or ABUS F154—Human Relations (3)
or other program-approved discipline-based human
relations course 3

4. Complete the following program requirements:*

a. Complete two science foundation courses:
BIOL F103X—Biology and Society (4)
or BIOL F104X—Natural History of Alaska (4)
or BIOL F115X—Fundamentals of Biology I (4) 4
CHEM F103X—Basic General Chemistry (4)
or CHEM F105X—General Chemistry I (4) 4

b. Complete the following:
ENVI F101—Introduction to Environmental Science 3
ENVI F110—Introduction to Water Quality I: Measurement 1
ENVI F130—Introduction to the National
Environmental Policy Act 1
ENVI F160—Internship in Environmental Studies .... 1 – 2
ENVI F260—Field Techniques for Environmental Technicians 2
ENVI F265—Introduction to Methods in
Environmental Studies 2
GEOG F111X—Earth and Environment:
Elements of Physical Geography 4

5. Complete 3 – 4 credits from the following electives:
   BIOL F104X—Natural History of Alaska 4
   BIOL F115X—Fundamentals of Biology I.................4
   CHEM F104X—Beginnings in Biochemistry................4
   CHEM F105X—General Chemistry I......................4
   DEVS F100—Introduction to Science 4
   FISH F101—Introduction to Fisheries.....................3
   HLRM F130—Research Field Logistics 2
   NRM F101—Natural Resources Conservation and Policy.................3
   RD F250—Grant Writing for Community Development .... 1 – 3
   STAT F200X—Elementary Probability and Statistics** 3
   Advisor-approved elective*** .... 1 – 3

6. Minimum credits required .... 34 – 39
* *Students must earn a C- grade or better in each course.*
** *Cannot be used for elective credit if used as computational credit.*
*** *Similar level and subject matter.*

ETHNOBOTANY

College of Rural and Community Development
Community and Technical College
Kuskokwim Campus
907-543-4500
Toll-free: 800-478-5822
www.bethel.uaf.edu

Certificate
Minimum Requirements for Certificate: 30 – 32 credits

The ethnobotany certificate program involves interdisciplinary study of the role of native plants in indigenous cultures. Students will learn about native plants and their uses and ecology in the context of their cultural, social and economic importance by combining scientific and anthropological concepts and methods. The program emphasizes culturally relevant, place-based courses that highlight the ways this information contributes to other fields of study, such as cultural and natural resource management, community development, adaptive resilience, and human health. It is also designed to serve as a bridge to a variety of associate and baccalaureate programs in natural sciences and liberal arts.

This program may be especially of interest to individuals employed by or interested in employment with state, federal or tribal agencies or other local entities in rural Alaska which provide natural resource management services.

Admission requires a high school diploma or GED and interest in science-related fields. It is highly recommended that students have completed two high school lab-based science courses, preferably in biology, chemistry or physics.

Students whose ACT/SAT scores are not sufficient for placement into college level courses will be required to take the ASSET or ACCUPLACER test and will be placed into the appropriate developmental level course.

Certificate Program

1. Complete the general university requirements (page 95).

2. Complete the certificate requirements (page 97).*

3. Complete the following:
   a. Complete one of the following communication courses:
   ENGL F111X—Introduction to Academic Writing (3)
      or ABUS F170—Business English (3) 3
   b. Complete one of the following computation courses:
   DEVM F105—Intermediate Algebra (3)
      or MATH F103X—Concepts and Contemporary Applications of Mathematics (3)
      or MATH F107X—Functions of Calculus (4) .... 3 – 4

   c. Complete the following human relations courses:
   ANTH/SOC F100X—Individual, Society and Culture......................3
   ABUS F154—Human Relations...............................3

4. Complete the following program requirements:*
   a. Complete two science foundation courses:
   BIOL F103X—Biology and Society (4)
      or BIOL F104X—Natural History of Alaska (4)
      or BIOL F116X—Fundamentals of Biology II (4)...............4
   and
   CHEM F103X—Basic General Chemistry (4)
      or CHEM F105X—General Chemistry I (4)..................4
   b. Complete the following:
   EBOT F100—Introduction to Ethnobotany...............3
   EBOT F200—Seminar in Ethnobotany 1
   EBOT F210—Ethical Wildcrafting.................1
   EBOT F220—Ethnobotanical Techniques 2
   EBOT F230—Ethnobotanical Chemistry....................3
   c. Complete 3 – 4 credits of approved electives:
   ENGL F212—Business, Grant and Report Writing (3)
      or ENGL F213X—Academic Writing About the Social and Natural Sciences (3) 3
   or
   100 – 200-level advisor-approved electives from the following subject areas: Alaska Native Languages, Alaska Native Studies, Applied Art, Anthropology, Economics, Education, Eskimo, Biology or Natural Resource Management........................ 3 – 4

5. Minimum credits required .... 30 – 32
* *Students must earn a C- grade or better in each course.*

HEALTH, ALLIED

College of Rural and Community Development
Community and Technical College
907-455-2887
www.ctc.uaf.edu/programs/health/

Certificate; AAS Degree
Minimum Requirements for Certificate: 30 – 42 credits;
for Degree: 60 – 61 credits

The occupational endorsement, certificates, degrees and occupational training programs in allied health provide students with the knowledge and technical skills for employment in health care. Course work in phlebotomy is available, as are occupational endorsements in medical billing, medical coding, and medical office reception. Certificates offered include medical assistant, dental assistant, health care reimbursement and medical/dental reception. AAS degrees offered include dental assistant and medical assistant. AAS degrees in nursing and radiologic technology are offered in Fairbanks at the Community and Technical College through the University of Alaska Anchorage.

Special admission, licensing, or certification requirements may apply to students in this program. Applicants should familiarize themselves with these and speak with a faculty advisor if they have any questions or concerns.

Dental Assistant
The dental assistant certificate and AAS degree programs prepare students to become skilled members of the dental health care team. The duties of the dental assistant are among the most comprehensive and varied in the dental office. Upon completion of the course work, students are eligible to take the Dental Assisting National Board (DANB) examination components for radiology and infection control. After 600 hours or six months employment in a dental office, they will be eligible to take the general chairside component of the examination and become Certified Dental Assistants. Prerequisites are graduation

from high school or equivalent (GED) and completion of a dental assisting application form.

Health Care Reimbursement

The health care reimbursement certificate program prepares students for employment as medical billers and coders in medical offices, clinics, hospitals and other medical facilities. Students in the program learn analysis of medical records and the assigning of codes for indexing diagnoses and procedures to provide information for reimbursement purposes. The successful completion of this certificate prepares the student for the national certification exam through the American Academy of Professional Coders. The occupational endorsements in medical billing and medical coding are part of the Health Care Reimbursement Certificate.

Medical Assistant, Medical/Dental Reception

The medical assistant certificate and AAS degree programs prepare students for employment in ambulatory care settings. Students receive education in the theory and skills for both office work and clinical care. Prerequisites for the program include a high school diploma or GED and completion of the medical assistant application. The UAF Community and Technical College medical assistant certificate is accredited by the Commission on Accreditation of Allied Health Education Programs upon recommendation of the Medical Assisting Education Review Board (MAERB), CAAHEP, 353 East Wacker Drive, Chicago, IL 60601, 312-553-9355. The medical assistant certificate incorporates both the medical office reception occupational endorsement and the medical/dental reception certificate.

Phlebotomy

Training is also available in phlebotomy. A student who completes the phlebotomy course may sit for national certification through the American Society for Clinical Pathology to become a certified phlebotomy technician.

Students wishing to enroll in phlebotomy must document proof of immunity to Hepatitis B, measles, mumps, rubella, varicella (chicken pox), document a flu shot, a completed two-step PPD (Purified Protein Derivative) for tuberculosis within the past year, and any other immunizations required by the externship site, prior to registering for the class.

Nursing Qualifications, Pre-

The Allied Health certificate in pre-nursing qualifications is designed to guide students preparing to apply to the University of Alaska Anchorage associate of applied science in nursing. The certificate includes all of the prerequisite and co-requisite courses for the AAS in nursing in addition to a clinical course. Admission to this certificate program requires a high school diploma or GED and test scores sufficient for placement into ENGL F111X and DEVM F105.

Admission to the UAA nursing program is competitive. While this certificate prepares the student to be highly qualified, it does not guarantee admission to the UAA nursing program. Before applying to the UAA AAS program in nursing, students must complete the Nurse Entrance Test and are strongly encouraged to work in a clinical practice. Students should work closely with an advisor while completing this certificate and preparing an application for admission to the nursing program.

Students who have not completed high school chemistry will need to complete either CHEM F103X or CHEM F105X or have instructor permission for to register for BIOL F213X or BIOL F214X.

Registered Nurse

The AAS degree in nursing is offered by the University of Alaska Anchorage at the Community and Technical College in cooperation with the Allied Health department. Graduates of the nursing program are prepared 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. Graduates of this AAS degree are eligible to take the NCLEX examination that grants professional licensure to practice nursing as a Registered Nurse. Additional information is available online at http://nursing.uaa.alaska.edu.

Radiologic Technology

The AAS degree in radiologic technology is offered by the University of Alaska Anchorage in cooperation with the Community and Technical College and Fairbanks Memorial Hospital. Course work for the degree is delivered through a combination of the traditional classroom setting, distance delivery and clinical experience. Upon completion of the program, students may apply to the American Registry of Radiologic Technologists (ARRT) for national certification. Additional information is available online at www.uaa.alaska.edu/alliedhealth/academics/mis/radtech/.

Information on any of the Allied Health programs is available from the Allied Health Division at Community and Technical College, PO Box 758040, Fairbanks, AK 99775; by calling 907-455-2822; by email at fyhealth@uaf.edu; or at www.ctc.uaf.edu/health/.

Dental Assistant — Certificate Program

1. Complete the general university requirements (page 95).

2. Complete the certificate requirements. (See page 97. As part of the certificate requirements, the communication, computation and human relations content is embedded in the major required courses for this program.)

3. Complete the following program (major) requirements:*
   DA F132—Administrative Procedures for the Dental Assistant.......2
   DA F150—Dental Radiography..4
   DA F151—Dental Infection Control...2
   DA F152—Dental Materials and Applications..............................4
   DA F153—Anatomy for Dental Assistants 3
   DA F251—Clinical Chairside I for Dental Assistants.....................6
   DA F252—Clinical Chairside II for Dental Assistants 6
   DA F254—Dental Assistant Practicum 4
   HLTH F110—Professional Skills for the Workplace 2
   HLTH F122—First Aid and CPR...1

4. Minimum credits required 34
*   Students must earn a C- grade or better in each course.

Health Care Reimbursement — Certificate Program

1. Complete the general university requirements (page 95).

2. Complete the certificate requirements. (See page 97. As part of the certificate requirements, the communication and human relations content are embedded in the major required courses for this program.)

3. Complete the following computation requirement:*
   HLTH F116—Mathematics in Health Care 3

4. Complete the following:*
   ENGL F111X—Introduction to Academic Writing (3)
       or ABUS F271—Business Communications (3)...............................3
   CIOS F150—Computer Business Applications (3)
       or HLTH F130—Medical Office Technology (3)...............................3
   HLTH F100—Medical Terminology...3
   HLTH F110—Professional Skills for the Workplace 2
   HLTH F132—Administrative Procedures I..2
   HLTH F208—Human Diseases...3
   HLTH F234—Administrative Procedures II.......................................4
   HLTH F235—Medical Coding...4
   HLTH F236—Outpatient Health Care Reimbursement 3

5. Minimum credits required 30
*   Students must earn a C- grade or better in each course.

Medical Assistant — Certificate Program

1. Complete the general university requirements (page 95).

2. Complete the certificate requirements (page 97).

   a. Complete ENGL F111X for the communications requirement.

   b. Complete 3 credits from one of the following computation courses:
   HLTH F116—Mathematics in Health Care 3
   DEVM F105—Intermediate Algebra 3
   MATH at the 100-level of higher...3

   c. Complete 3 credits from one of the following human relations courses:
   HLTH F106—Human Behavior in Health Care 3
   ABUS F154—Human Relations..3
   SOC F100X—Individual, Society and Culture.....................................3
   PSY F101—Introduction to Psychology...3

3. Complete the following program (major) requirements:*
   HLTH F100—Medical Terminology...3
   HLTH F110—Professional Skills in the Workplace 2
   HLTH F114—Fundamentals of Anatomy and Physiology (4)
       or BIOL F100X—Human Biology (4)..4
   HLTH F118—Medical Law and Ethics...2
   HLTH F122—First Aid and CPR..1
       or current First Aid/CPR card
   HLTH F132—Administrative Procedures I...2
   HLTH F142—Clinical Procedures I 4
   HLTH F234—Administrative Procedures II..4
   HLTH F236— Outpatient Health Care Reimbursement.....................3
   HLTH F244—Clinical Procedures II 4
   HLTH F268—Medical Assisting Practicum (4)
       or HLTH F261—Medical/Dental Office Reception Practicum (2)
       and HLTH F267—Medical Assisting Externship
       Completion (2 – 4)...4

4. Minimum credits required .... 38 – 42
   * Students must earn a C- grade or better in each course.

Medical/Dental Reception — Certificate Program

1. Complete the general university requirements (page 95).

2. Complete the following certificate requirements:*

   a. Complete 3 credits from one of the following communication courses:
   ABUS F271—Business Communications (3)
       or ENGL F111X—Introduction to Academic Writing (3) 3

   b. Complete 3 credits from one of the following computation courses:
   MATH at the F100-level or above (3)
       or HLTH F116—Mathematics in Health Care (3) 3

   c. Complete the following human relations course:
   HLTH F106—Human Behavior in Health Care 3

3. Complete the following:*
   CIOS F150—Computer Business Applications (3)
       or CIOS elective at the F200-level (3)
       or HLTH F130—Medical Office Technology (3)...............................3
   HLTH F100—Medical Terminology...3
   HLTH F110—Professional Skills for the Workplace............................2
   HLTH F118—Medical Law and Ethics...2
   HLTH F122—First Aid and CPR..1
   HLTH F132—Administrative Procedures I...2
   HLTH F234—Administrative Procedures II..4
   HLTH F236— Outpatient Health Care Reimbursement.....................3
   HLTH F261—Medical/Dental Office Reception Practicum 2
   Approved HLTH, CIOS, ABUS, HUMS, DEVS or
   COMM elective..2

4. Minimum credits required .... 30 – 33
   * Students must earn a C- grade or better in each course.

Nursing Qualifications, Pre- — Certificate Program

1. Complete the general university requirements (page 95).

2. Complete the certificate requirements (page 97). As part of the certificate requirements, complete:
   Communications
   ENGL F111X—Introduction to Academic Writing..............................3
   Computation
   DEVM F105—Intermediate Algebra (3)
       or HLTH F116—Mathematics in Health Care (3)
       or MATH at the 100 level or higher (3) 3
   Human Relations
   PSY F101—Introduction to Psychology 3

3. Complete the following program requirements:*
   ENGL F211X—Academic Writing about Literature (3)
       or ENGL F213X (preferred)—Academic Writing
       About the Social and Natural Sciences (3)......................................3
   COMM F131X—Fundamentals of Communication:
   Group Context (3)
       or COMM F141X—Fundamentals of Communication:
       Public Context (3)..3
   PSY F240—Lifespan Developmental Psychology...............................3
   HTLH F203—Science of Nutrition 3
   BIOL F213X—Human Anatomy and Physiology.................................4
   BIOL F214X—Human Anatomy and Physiology II.............................4
   BIOL F240—Beginnings in Microbiology..4

4. Complete one of the following clinical courses (4 – 9 credits)
   HLTH F107—Nurse Aide Training...9
   HLTH F111—Personal Care Attendant..4
   HLTH F113—PCA to CNA Bridge...5
   EMS F170—Emergency Medical Technician I 6
   or other approved clinical course

5. Minimum credits required .... 37 – 42
   * Students must earn a C- grade or better in each course.

Dental Assistant — AAS Degree

1. Complete the general university requirements (page 95).

2. Complete the AAS degree requirements (page 99).

3. Complete the following program (major) requirements:*
   DA F132—Administrative Procedures for the Dental Assistant.......2
   DA F150—Dental Radiography..4
   DA F151—Dental Infection Control..2
   DA F152—Dental Materials and Applications......................................4
   DA F153—Anatomy for Dental Assistants 3
   DA F251—Clinical Chairside I for Dental Assistants..........................6
   DA F252—Clinical Chairside II for Dental Assistants.........................6
   DA F253—Clinical Chairside III for Dental Assistants 3
   DA F254—Dental Assistant Practicum 4
   HLTH F110—Professional Skills for the Workplace............................2
   HLTH F114—Fundamentals of Anatomy and Physiology.................4
   HLTH F122—First Aid and CPR..1
       or first aid/CPR card
   HLTH F203—Science of Nutrition 3
   HLTH F247—Introduction to Pharmacology..2

4. Minimum credits required 61
   * Students must earn a C- grade or better in each course.

Medical Assistant — AAS Degree

1. Complete the general university requirements (page 95).

2. Complete the AAS degree requirements (page 99)*.

3. Complete the following program (major) requirements:*
   CIOS F150—Computer Business Applications (3)
       or appropriate CIOS elective (3)
       or HLTH F130—Medical Office Technology (3)...............................3
   HLTH F100—Medical Terminology...3
   HLTH F110—Professional Skills for the Workplace............................2

CERTIFICATES & ASSOCIATE DEGREES

HLTH F114—Fundamentals of Anatomy and Physiology (4)
   or BIOL F100X—Human Biology (4)..................................4
HLTH F118—Medical Law and Ethics 2
HLTH F122—First Aid and CPR..1
   or current First Aid/CPR card
HLTH F132—Administrative Procedures I........................2
HLTH F142—Clinical Procedures I 4
HLTH F208—Human Diseases 3
HLTH F234—Administrative Procedures II.......................4
HLTH F236— Outpatient Health Care Reimbursement....................3
HLTH F244—Clinical Procedures II 4
HLTH F247—Introduction to Pharmacology....................2
HLTH F268—Medical Assisting Practicum (4)
   or HLTH F261—Medical/Dental Office Reception Practicum (2)
   and HLTH F267—Medical Assisting
   Externship Completion (2 – 4) 4
Approved HLTH, CIOS, ABUS, HUMS, DEVS or
COMM elective.. 3 – 7

4. Minimum credits required 60
*   *Students must earn a C- grade or better in each course.*

HIGH LATITUDE RANGE MANAGEMENT

College of Rural and Community Development
Northwest Campus
907-443-2201
www.nwc.uaf.edu

Certificate

Minimum Requirements for Certificate: 31 credits

A HLRM program certificate represents the completion of at least 31 credits in the conventional field-based techniques to inventory and monitor northern animal and plant populations combining traditional knowledge with contemporary studies necessary for entry-level natural resource jobs statewide. The certificate also emphasizes place-based domesticated ungulate husbandry and health, applicable regionally and statewide. This certificate may also serve as a bridge to a variety of natural science associate and baccalaureate programs

Admission is open to all individuals, especially those employed by or interested in employment with state, federal or tribal agencies or other local entities in rural Alaska which provide natural resources management services.

Students should have a high school diploma or GED and an interest in science-related fields. It is strongly recommended that students seeking admission to this program have completed two high school, lab-based science courses preferably in biology, chemistry or physics.

Students whose ACT/SAT scores are not high enough to place them into regular college level classes will be required to take the ASSET or COMPASS test and will be placed into the appropriate developmental level course.

Certificate Program

1. Complete the general university requirements (page 95).

2. Complete the certificate requirements (page 97)*.

3. Complete the following:
   a. Complete the following communication course:
   ENGL F111X—Introduction to Academic Writing.............................3
   b. Complete one of the following computation courses:
   MATH F103X—Concepts and Contemporary Applications of Mathematics (3)
      or ABUS F155—Business Math (3) 3
   c. Complete one of the following human relations courses:
   ANTH/SOC F100X—Individual, Society, and Culture (3)
      or ABUS F154—Human Relations (3)................................3

4. Complete the following program (major) requirements:*
   NRM F101—Natural Resources Conservation and Policy.................3
   BIOL F104X—Natural History of Alaska 4
   HLRM F120—History of Domesticated Alaskan Ungulates.............1
   HLRM F130—Research Field Logistics 2
   HLRM F140—High Latitude Range Management...........................2
   HLRM F150—Alaskan Ungulate Husbandry 2
   HLRM F160—Meat Production 2
   HLRM F170—Health Issues in Domesticated Ungulates 2
   HLRM F201—Field Techniques for Range Management 2
   HLRM F205—Report Writing in Range Management......................2

5. Minimum credits required 31
*   *Students must earn a C- grade or better in each course.*

HUMAN SERVICES

College of Rural and Community Development
Bristol Bay Campus 907-842-5109
Chukchi Campus 907-442-3400
Interior-Aleutians Campus 907-474-5439
Kuskokwim Campus 907-543-4500
Northwest Campus 907-443-2201
Community and Technical College, Human Services Program
907-455-2842
www.ctc.uaf.edu/programs/hums/

AAS Degree

Minimum Requirements for Degree: 63 credits

Students in the human services program receive skills-based training within a foundation of theory. After completing foundation courses, students select an area of concentration from the following: addictions counseling, behavioral health, or interdisciplinary concentration. Students learn interviewing and assessment, case management, crisis intervention, group counseling techniques and other specific skills needed within their concentration area.

The program prepares students for entry-level positions in human services agencies. Persons with a strong desire to help others, a sincere respect for mankind and a commitment to their own personal growth may find this field rewarding. They must be emotionally stable, flexible and interested in working with people of diverse social, cultural and economic backgrounds. Recovery from life traumas and addictions can be a positive attribute if the student has successfully worked through specific issues and is willing to continue personal growth.

Students who complete an addictions concentration are eligible for certification as chemical dependency counselor technicians through the Alaska Commission for Behavioral Health Certification.

Each concentration is available to BA degree students as a minor. The BA degree student must complete the concentration and three HUMS elective credits. Concentrations provide students with skills needed for employment. See minor requirements.

This degree program is delivered collaboratively within the UA system.

Major — AAS Degree

Concentrations: Addictions Counseling, Behavioral Health and Interdisciplinary Concentration

1. Complete the general university requirements (page 95).

2. Complete the AAS degree requirements (page 99).

3. Complete the following:*
   HUMS F101—Introduction to Human Services................................3
   HUMS F102—Standards of Practice I....................................2
   HUMS F120—Cultural Diversity in Human Services.......................3
   HUMS F125—Introduction to Addictive Processes 3
   HUMS F202—Standards of Practice II.....................................1

HUMS F215—Individual Interviewing 3
HUMS F232—Human Service Practicum I 3
HUMS F233—Human Service Practicum II...........................3
HUMS F301—Ethics in Human Service 3
PSY F101—Introduction to Psychology 3

4. Complete one of the following family courses for Addictions Counseling and Interdisciplinary concentration:*
ECE F342O—Family Relationships.......................................3
HUMS F140—Family Dynamics 3
RHS F120—Family Systems I 2
PSY F240—Lifespan Developmental Psychology...............3

5. Complete one of the following courses for Addictions Counseling and Interdisciplinary concentration:*
HUMS F205—Basic Principles of Group Counseling 3
HUMS F210—Crisis and Grief Counseling 3

6. Complete the following for the Behavioral Health concentration:*
HUMS F205—Basic Principles of Group Counseling 3
HUMS F210—Crisis and Grief Counseling 3

7. Complete one of the following concentrations*:

Addictions Counseling
Complete the following:
HUMS F105—Personal Awareness and Growth 3
HUMS F205—Basic Principles of Group Counseling 3
HUMS F260—History of Alcohol in Alaska.......................1
HUMS F261—Substance Abuse Assessment: ASAM PPC II...........1
HUMS F263—Fetal Alcohol Spectrum Disorder (FASD).................1
HUMS F266—Dual Diagnosis Intervention and Treatment............2
HUMS F305—Substance Abuse Counseling 3
HUMS F250—Current Issues in Human Services 1
    or any 1 credit course approved by the Human Services
    Program 1

Behavioral Health
a. Complete the following:
HUMS F280—Foundations of Community Development and Prevention Practices for the Human Service Professional.................3
HUMS F290—Case Management 3
HUMS F305—Substance Abuse Counseling 3
SOC F242—The Family: A Cross-Cultural Perspective 3
b. Complete 3 elective credits (approved by Human Services Program Coordinator) 3
c. If the student is a social work or justice major, then choose one of the following in place of an elective:
Social Work Majors:
SWK F103—Introduction to Social Work 3
Justice Majors:
JUST F110—Introduction to Justice 3

Interdisciplinary Concentration
a. The interdisciplinary concentration option is made available to students based on their individual needs and goals for specific vocational preparation. The interdisciplinary concentration will include 12 credits at the F200 level or above from the disciplines of social work, psychology, sociology, justice or human services. Three credits from these disciplines can be at the F100 level.
b. The interdisciplinary concentration will be reviewed and approved by the Human Services Program Coordinator, another human services faculty member and a faculty member representing at least one other discipline. Criteria for the approval of the interdisciplinary concentration is based on the candidate's identified vocational and curricular needs.
 • Examples:
   HUMS or other acceptable courses that meet a student's specific need: Workforce Specialty, Family Specialty, Restorative Justice, etc.
 • Courses or a certificate from within the UA system (UAA, RHS, PWSCC, etc.) that are aligned with the human services degree program.

• Example of possible interdisciplinary concentration of human services in restorative justice:
HUMS F210—Crisis and Grief Counseling..............................3
HUMS F290—Case Management 3
JUST F110—Introduction to Justice.......................................3
JUST F251—Criminology...3
SOC F201—Social Problems 3

8. Minimum credits required 63
* Students must earn a C grade or better in each course.

For students with the Rural Human Services Certificate (up to 21 credits accepted as a block of courses):*

1. Complete the general university requirements (page 95).

2. Complete the AAS degree requirements (page 99).

3. Complete the following:*
HUMS F101—Introduction to Human Services 3
HUMS F102—Standards of Practice 2
HUMS F202—Standards of Practice II 1
HUMS F233—Human Service Practicum II.......................3
HUMS F301—Ethics in Human Service 3
PSY F101—Introduction to Psychology 3
PSY F240—Lifespan Developmental Psychology...............3

4. Complete three of the following courses:*
HUMS F280—Foundations of Community Development and Prevention Practices for the Human Services Professional 3
HUMS F290—Case Management...3
HUMS F305—Substance Abuse Counseling 3
HUMS F250—Current Issues in Human Services 3
    or other approved course 3

5. Optional (for BA seeking students):
 • Social Work Majors:
   SWK F103—Introduction to Social Work..........................3
     or other Social Work-approved course 3
 • Justice Majors:
   JUST F110—Introduction to Justice...................................3

6. Minimum credits required 63
* Students must earn a C grade or better in each course.

Minor

Option 1

1. Complete one concentration in human services*.............................15

2. Complete HUMS elective credits* 3

3. Minimum credits required*...18

Option 2

1. Complete HUMS-approved** elective credits.................................18

2. Minimum credits required*...18
* Students must earn a C grade or better in each course.
** Electives for Option 2 must be approved by the human services program coordinator.

Alaska Chemical Dependency Counselor Certification
The Alaska Commission for Behavioral Health Certification has approved the following courses for up to 45 training hours each toward certification or recertification of Chemical Dependency Counselors in the state of Alaska.
HUMS F125—Introduction to Addictive Processes 3
HUMS F205—Basic Principles of Group Counseling 3
HUMS F210—Crisis and Grief Counseling 3
HUMS F215—Individual Interviewing 3
HUMS F260—History of Alcohol in Alaska.......................................1
HUMS F301—Ethics in Human Service 3
HUMS F305—Substance Abuse Counseling 3
Note: Chemical Dependency Counselors currently certified by the Alaska Commission for Behavioral Health Certification are eligible for transfer credit toward the human services degree. Contact the human services program coordinator at 907-455-2842 for more information.

INFORMATION TECHNOLOGY SPECIALIST

College of Rural and Community Development
Community and Technical College
907-455-2800
Department of Computer and Information Technology Systems
www.ctc.uaf.edu/its/

Certificate; AAS Degree

Minimum Requirements for Certificate: 30 credits;
for AAS Degree: 60 credits

The Information Technology Specialist certificate and associate programs teach students how to use, support, implement, and trouble-shoot the computer and information technology systems found in educational, governmental and corporate settings.

The certificate program focuses on foundation-level support skills required to effectively use and troubleshoot computer and information technology systems. Students completing the certificate program will be prepared for entry-level IT positions and to continue their education in the Information Technology Specialist AAS degree program.

The AAS degree program prepares individuals to implement, support, and troubleshoot computer and information technology systems and obtain employment as an IT professional. Associate degrees in computing technology, network and cybersecurity, and network and system administration are offered.

Students entering either the certificate or AAS degree program should meet with a faculty advisor to discuss program content requirements and develop an education plan that matches the current skills and goals of the student.

This degree program is delivered collaboratively within the UA system.

Certificate Program

1. Complete the general university requirements (page 95).

2. Complete the certificate requirements. (See page 97. As part of the certificate requirements, complete ABUS F154 or ANTH F100X/SOC F100X for the human relations requirement.)

3. Complete the following program (major) requirements*:
   CITS F203—Information Technology Support Fundamentals.........4
   CITS F204—Introduction to Network Support and Administration 3
   CITS F212—Server Operating Systems...............................3
   CITS F261—Computer and Information Security 3

4. Complete 8 – 9 credits from the following or program coordinator-approved courses:*
   CIOS F128—Using and Configuring PC Operating Systems 3
   CIOS F130—Microcomputer Word Processing............................ 1 – 3
   CIOS F135—Microcomputer Spreadsheets .... 1 – 3
   CIOS F150—Computer Business Applications............................. 1 – 3
   CIOS F189—Microcomputer Applications: Topics.................. 1 – 3**
   CIOS F233—Desktop Publishing... 1 – 3
   CIOS F240—Microcomputer Databases.................................. 1 – 3
   CIOS F255—Microcomputer Graphics.................................... 1 – 3
   CIOS F258—Digital Photography... 1 – 3
   CITS F201—Microcomputer Operating Systems Support .... 1 – 3
   CITS F219—Microcomputer Operating Systems: Topics......... 1 – 4**
   CITS F220—Implementing Internet Tools and Technologies...........3
   CITS F221—Graphics and Multimedia for the Web.........................3
   CITS F222—Website Design...3
   CITS F240—System and Network Services Administration.............3
   CITS F241—Networking and LAN Infrastructure Basics 4
   CITS F242—Routers and Routing Concepts..............................4
   CITS F262—Cybersecurity Defense and Countermeasures..............3
   CITS F263—Network Security Penetration Testing 3
   CITS F265—Directory Services Administration 3

   CITS F282—IT Troubleshooting Skills.. 1 – 3
   CITS F289—Information Technology: Topics............................. 1 – 3

5. Pass a certification review requiring students to demonstrate proficiency in the following skill areas: operating systems, hardware, and network support and troubleshooting.***

6. Minimum credits required 30

Major — AAS Degree

Concentrations: Computing Technology, Network and Cybersecurity, and Network and System Administration

1. Complete the general university requirements (page 95).

2. Complete the AAS degree requirements. (See page 99. As part of the AAS degree requirements, complete DEVM F105 or any course at the F100-level or above in mathematical sciences (computer science, math or statistics) for the computation requirement, and ABUS F154, ANTH F100X/SOC F100X for the human relations requirement.)

3. Complete the following program (major) requirements:*
   CITS F204—Introduction to Network Support and Administration 3
   CITS F205—Introduction to Microcomputer Programming (1 – 3)
      or CS F103—Introduction to Computer Programming (3)
      or CS F201—Computer Science I (3) 3
   CITS F212—Server Operating Systems...............................3
   CITS F261—Computer and Network Security 3
   CITS F281—Professional Practice in IT...............................3
   CITS F284—Independent Project (1 – 3)
      or CITS F285—Cooperative Work Experience (3) 3

4. Complete an additional 6 credits from CIOS, CITS or CS electives...6

5. Complete one of the following concentrations:*
   Computing Technology
   Complete 21 – 22 credits from the following or from program coordinator-approved courses:
   CITS F201—Microcomputer Technology Support...................... 1 – 3
   CITS F203—Information Technology Support Fundamentals.........4
   CITS F220—Implementing Internet Tools and Technologies...........3
   CITS F221—Graphs and Multimedia for the Web 3
   CITS F222—Website Design... 1 – 3
   CITS F240—System and Network Services Administration 3
   CITS F241—Networking and LAN Infrastructure Basics 4
   CITS F242—Routers and Routing Concepts..............................4
   CITS F243—Intermediate Networking and LAN Infrastructure.....4
   CITS F244—Advanced Networking Infrastructure Services...........4
   CITS F262—Cybersecurity Defense and Countermeasures..............3
   CITS F263—Network Security Penetration Testing 3
   CITS F265—Directory Services Administration 3
   CITS F282—IT Troubleshooting Skills.. 1 – 3
   CITS F289—Information Technology: Topics............................. 1 – 3

   Network and Cybersecurity
   Complete the following:
   CITS F241—Networking and LAN Infrastructure Basics 4
   CITS F242—Routers and Routing Concepts..............................4
   CITS F243—Intermediate Networking and LAN Infrastructure.....4
   CITS F244—Advanced Networking Infrastructure Services...........4
   CITS F262—Cybersecurity Defense and Countermeasures..............3
   CITS F263—Network Security Penetration Testing 3

   Network and System Administration
   Complete the following:
   CITS F240—System and Network Services Administration 3
   CITS F241—Networking and LAN Infrastructure Basics 4
   CITS F242—Routers and Routing Concepts..............................4
   CITS F243—Intermediate Networking and LAN Infrastructure.....4
   CITS F244—Advanced Network Infrastructure Services..................4
   CITS F265—Directory Services Administration 3

6. Pass a certification review requiring students to demonstrate proficiency in the following skill areas: network support and troubleshooting; system administration; cybersecurity; independent thinking; human relations and support; and professional practices.***

7. Minimum credits required 60

* Students must earn a C- grade or better in each course.
** May be repeated for different topics.
*** Prior to graduation, all students are required to pass a certification review that includes a hands-on scenario task and the development and presentation of a portfolio of work.
Note: Upon admission to the certificate or degree program, each student will be assigned a mentor/committee chairperson who will be responsible for determining the student's current level of competency in the various skill areas; assisting the student in determining the courses/experiences necessary for gaining competency in the deficient skill areas; setting up the student's committee to consist of the mentor and at least one other individual who may be a UA faculty member, an adjunct faculty member, or an expert in the student's community; arranging for practical experiences in the student's community; and organizing the committee's final assessment of the student's work and recommending award of the certificate or degree.

INSTRUMENTATION TECHNOLOGY

College of Rural and Community Development
Community and Technical College
907-479-2436
www.ctc.uaf.edu/programs/inst/

Certificate

Minimum Requirements for Certificate: 32 credits

The instrumentation technology program will develop entry-level skills in industrial instrumentation. Courses combine the technical know-how, the use of state-of-the-art equipment and hands-on experience necessary for work in a variety of industrial instrumentation fields.

Students are taught the necessary objectives and skills sets required to take the entry-level Instrumentation, Systems and Automation Society certificate examination. This is a nationally recognized certification by industry partners; individuals holding this certification are sought after by industry partners to fill instrumentation technician positions worldwide.

As the process industries expand and automate, the need for qualified technicians increases. This need is currently being addressed by the Industrial Instrumentation & Controls Technology Alliance. CTC and the process technology program are active members of this national alliance.

Certificate Program

1. Complete the general university requirements (page 95).

2. Complete the certificate requirements (page 97).

3. Complete the following program requirements:
   ELT F101—Basic Electronics: DC Physics.............................4
   ELT F102—Basic Electronics: AC Physics.............................4
   ELT F246—Electronic Industrial Instrumentation 3
   PRT F140—Industrial Process Instrumentation I..............................3
   PRT F144—Industrial Process Instrumentation II 3
   PRT F240—Industrial Process Instrumentation III 3
   PRT F248—Valve Maintenance and Instrumentation........................3

4. Minimum credits required 32

* Students must earn a C grade or better in each course.

INTERDISCIPLINARY STUDIES

Office of Interdisciplinary Programs
907-474-7716
fyinds@uaf.edu
www.uaf.edu/gradsch/classes/interdisciplinary-program/

AAS Degree

Minimum Requirements for Degree: 60 credits

The interdisciplinary program provides flexibility to undergraduate and graduate students who have well-defined goals that do not fit into one of the established majors offered by the university. Interdisciplinary Studies, both graduate and undergraduate programs, is located in the Graduate School office. Help with the application process, contact information for faculty advisors and assistance for interdisciplinary students is available at 907-474-7716 or see **www.uaf.edu/gradsch/classes/interdisciplinary-program/**.

Major — AAS Degree

1. Contact the UAF Office of the Graduate School and Interdisciplinary Programs for materials and procedures.

2. Contact three faculty members to serve as the interdisciplinary studies committee.

3. Prepare rationale/justification letter.

4. Conduct committee meeting to finalize degree proposal, title of degree and assessment plan.

5. Submit proposal to appropriate dean for approval.

6. Submit to the vice provost for final approval.

7. Minimum credits required 60

MINING APPLICATIONS AND TECHNOLOGIES

College of Rural and Community Development
Community and Technical College
907-479-2436
www.ctc.uaf.edu/programs/protech/

Certificate

Minimum Requirements for Certificate: 31 or 37 credits

This program prepares students for employment in the mining technology industry and provides career development and personal enrichment for experienced miners and workers within the mineral industry. Possible career paths for certificate graduates include entry-level positions with exploration, mining, environmental and consulting companies.

Holders of this certificate will be trained to meet the anticipated demand for workers in open pit mining, surface coal mining, underground metal mining, sand and gravel, and placer mining. Two options are available: surface and underground mining techniques is intended for the miner, and mineral processing operations is intended for mineral process operators. After completing AMIT F109 and/or AMIT F129, students will receive the Mine Safety Health Association certificate. Contact the process technology department at 907-455-2868 for information on the MSHA certificate.

Certificate Program

Options: Surface and Underground Mining Techniques or Mineral Processing Operations

1. Complete the general university requirements (page 95).

2. Complete the certificate requirements (page 97).

3. Complete the following requirements for Option A or Option B:

Option A: Surface and Underground Mining Techniques
AMIT F101—Introduction to Mining.........................3
AMIT F109—Underground Mine Safety.....................1
AMIT F110—Underground Mining I 3
AMIT F120—Explosives I 3
AMIT F129—Surface Mine Safety...........................1
AMIT F130—Surface Mining Operations...................3
AMIT F155—Drilling Technology 3
AMIT F210—Underground Mining II........................3
AMIT F220—Explosives II 3
AMIT F230—Field Methods....................................2

Option B: Mineral Processing Operations
AMIT F101—Introduction to Mining.........................3
AMIT F129—Surface Mine Safety...........................1
AMIT F130—Surface Mining Operations...................3
AMIT F135—Introduction to Mining Systems and Equipment 4
AMIT F140—Environmental Permitting.....................1
AMIT F145—Introduction to Mineral Beneficiation 3
AMIT F154—Water Quality and Flocculants 3
AMIT F162—Geochemical Sampling 1
AMIT F230—Field Methods....................................2
AMIT F231—Heap Leaching...................................1
PRT F101—Introduction to Process Technology...........3
PRT F110—Introduction to Occupational Safety, Health and Environmental Awareness....................3
PRT F140—Industrial Process Instrumentation I............3

4. Minimum credits required ....31 or 37

NATIVE LANGUAGE EDUCATION

College of Liberal Arts
Alaska Native Languages Program
907-474-7874
www.uaf.edu/anlc/classes/

Certificate; AAS Degree

Minimum Requirements for Certificate: 30 credits;
for Degree: 60 credits

The Native language education program trains teachers of Native language and culture, providing course work in Athabascan, Inupiaq Eskimo or Central Yup'ik Eskimo. The certificate and degree are recognized by some Alaska school districts and serve as steps toward a four-year degree. Candidates for the Central Yup'ik option must score advanced oral proficiency on an oral proficiency exam before being admitted into the program.

Certificate Program

Concentrations: Athabascan, Inupiaq Eskimo, Central Yup'ik Eskimo

1. Complete the general university requirements (page 95).

2. Complete the certificate requirements. (See page 97. As part of the certificate requirements, the communication, computation, and human relations content is embedded in some of the major required courses for this program.)

3. Complete one of the following concentrations:*

Athabascan
a. Candidates must demonstrate proficiency or complete a two-semester sequence in the language of the degree.

b. Complete the following program (major) requirements:
ANL F108—Beginning Athabascan Literacy...................3
ANL F199—Practicum in Native Language Education..........6
ANL F208—Advanced Athabascan Literacy....................3
ANL F251—Introduction to Athabascan Linguistics...........3

ANL F256—Alaska Native Languages: History, Status and Maintenance....................................3
ANL F287—Teaching Methods for Alaska Native Languages..........3
ANL F288—Curriculum and Materials Development for Alaska Native Languages 3
ED F299—Practicum in Education 6

Inupiaq Eskimo
a. Candidates must demonstrate proficiency or complete a two-semester sequence in the language of the degree.

b. Complete the following program (major) requirements:
ANL F199—Practicum in Native Language Education.........6
ANL F256—Alaska Native Languages: History, Status and Maintenance....................................3
ANL F287—Teaching Methods for Alaska Native Languages..........3
ANL F288—Curriculum and Materials Development for Alaska Native Languages 3
ED F299—Practicum in Education 6
ESK F118—Inupiaq Orthography 3
ESK F218—Inupiaq Composition 3
Eskimo linguistics elective..................................3

Central Yup'ik Eskimo
a. Demonstrate advanced oral/aural proficiency in Yup'ik.

b. Complete the following program (major) requirements:
ESK F109—Central Yup'ik Orthography 3
ESK F130—Beginning Yup'ik Grammar 3
ESK F208—Yup'ik Composition 3
ESK F250—Yup'ik Literature for Children....................3
ESK F251—Teaching Beginning Yup'ik Reading and Writing..........3
ANL F199—Practicum in Native Language Education.........3
ANL F256—Alaska Native Languages: History, Status and Maintenance....................................3
ANL F287—Teaching Methods for Alaska Native Languages..........3
ANL F288—Curriculum and Materials Development for Alaska Native Languages 3
ED F299—Practicum in Education 3

4. Minimum credits required 30

Major — AAS Degree

Concentrations: Athabascan, Inupiaq Eskimo, Central Yup'ik Eskimo

1. Complete the general university requirements (page 95).

2. Complete the AAS degree requirements (page 99).

3. Complete one of the following concentrations:*

Athabascan
a. Candidates must demonstrate proficiency or complete a two-semester sequence in the language of the degree.

b. Complete the following program (major) requirements:
ANL F108—Beginning Athabascan Literacy.....................3
ANL F199—Practicum in Native Language Education..........6
ANL F208—Advanced Athabascan Literacy....................3
ANL F251—Introduction to Athabascan Linguistics...........3
ANL F256—Alaska Native Languages: History, Status and Maintenance....................................3
ANL F287—Teaching Methods for Alaska Native Languages..........3
ANL F288—Curriculum and Materials Development for Alaska Native Languages 3
ED F299—Practicum in Education 6

Inupiaq Eskimo
a. Candidates must demonstrate proficiency or complete a two-semester sequence in the language of the degree.

b. Complete the following program (major) requirements:
ANL F199—Practicum in Native Language Education.........6
ANL F256—Alaska Native Languages: History, Status and Maintenance....................................3
ANL F287—Teaching Methods for Alaska Native Languages..........3

ANL F288—Curriculum and Materials Development for
Alaska Native Languages 3
ED F299—Practicum in Education 6
ESK F118—Inupiaq Orthography 3
ESK F218—Inupiaq Composition 3
Eskimo linguistics elective..3

Central Yup'ik Eskimo

a. Demonstrate advanced oral/aural proficiency in Yup'ik.
b. Complete the following program (major) requirements:
ESK F109—Central Yup'ik Orthography 3
ESK F208—Yup'ik Composition 3
ESK F250—Yup'ik Literature for Children....................3
ESK F251—Teaching Beginning Yup'ik Reading and Writing.........3
ANL F199—Practicum in Native Language Education....................3
ANL F256—Alaska Native Languages: History, Status and
Maintenance..3
ANL F287—Teaching Methods for Alaska Native Languages...........3
ANL F288—Curriculum and Materials Development for
Alaska Native Languages 3
ED F299—Practicum in Education 3

4. Minimum credits required 60
* *Students must earn a C- grade or better in each course.*
See Alaska Native Languages

PARALEGAL STUDIES

College of Rural and Community Development
Community and Technical College
907-455-2835
www.ctc.uaf.edu/programs/paralegal/

AAS Degree
Minimum Requirements for Degree: 61 credits

The paralegal studies program trains students for employment as paralegals to assist in the delivery of legal services under the supervision of a practicing lawyer, and provides continuing education and upgrading of skills for paralegals already employed. In addition, the program offers practical law-related topics for UAF students whose main focus is in other areas of study such as political science and justice.

Paralegals and legal assistants are not authorized to provide direct legal services to the public. However, they are qualified to perform rudimentary legal research and produce drafts of letters, office memoranda, pleadings, contracts, wills and similar documents. Paralegals conduct client and witness interviews, engage in basic fact-finding and investigation, and assist in trial preparation and discovery. At all times they remain cognizant of the ethical responsibilities owed by the supervising lawyer to clients, other lawyers and the court system.

The UAF paralegal studies program does not train lawyers or legal administrators. The associate (AAS) degree is approved by the American Bar Association. The minor is not designed to prepare students to work as paralegals and is not approved by the American Bar Association.

Major — AAS Degree

1. Complete ENGL F111X with a grade of C or better prior to admission to the program.

2. Complete the general university requirements (page 95).

3. Complete the AAS degree requirements (page 99).

4. Complete the following:*
PLS F102—Introduction to Paralegal Studies.....................3
PLS F105—Introduction to Paralegal Ethics.....................2
PLS F201—Practical Paralegal Skills.............................3
PLS F210—Civil Procedure.......................................3

PLS F260—Computers in the Law Office...........................3
PLS F280—Legal Research and Writing for Paralegals.............3
PLS F285—Advanced Legal Writing................................2
PLS F299—Paralegal Studies Internship 3
PS F101—Introduction to American Government (3)
or JUST F110—Introduction to Justice (3) 3

5. Complete either:
PS F303—Politics and the Judicial Process (3)
or PS F300X—Ethics and Society (3)
or JUST F300X—Ethics and Justice (3)............................3

6. Complete either:
PS F435W—Constitutional Law I: Institutions and Government
Powers (3)
or PS F436—Constitutional Law II: Civil Rights and
Civil Liberties (3)
or JRN F413—Mass Media Law (3)................................3

7. Complete five of the following:*
PLS F203—Torts..3
PLS F213—Criminal Law for Paralegals..........................3
PLS F215—Contracts/Real Property...............................3
PLS F240—Family Law..3
PLS F242—Employment and Administrative Law for Paralegals 3
PLS F250—Probate Law 3
PLS F275—Business Organizations................................3
PLS F293—(special topics course)...............................3

8. Minimum credits required 61
* *Students must earn a C- grade or better in each PLS, PS, JUST or JRN course.*
Note: Students interested in the paralegal studies degree should consult the program coordinator before enrolling in paralegal courses. Transfer credits for paralegal courses completed at other institutions are subject to approval by the program coordinator. No more than 15 credit hours of paralegal courses completed at other institutions will be applied toward completion of the AAS degree in paralegal studies at UAF.

Minor

1. Complete the following:
PLS F102—Introduction to Paralegal Studies.....................4
PLS electives 15

2. Minimum credits required 18

PARAMEDICINE

College of Rural and Community Development
Community and Technical College
907-455-2853
www.ctc.uaf.edu/programs/emergency/

AAS Degree
Minimum Requirements for Degree: 69 – 73 credits

The UAF Community and Technical College paramedic program is accredited by the Commission on Accreditation of Allied Health Education Programs upon recommendation of the Committee on Accreditation of Education Programs for EMS Professions, 1361 Park Street, Clearwater, FL 33756, 727-210-2350.

The UAF emergency medical services program offers excellent instruction, clinical experience, state-of-the-art simulation labs and practical vocational experience for the student seeking to become a paramedic. Upon completion of the paramedicine program, students will be able to take the national paramedic exam. After receiving national certification, students can apply for a paramedic license through the Alaska State Medical Board.

An application must be completed for admission into the paramedicine program. Applications are reviewed by the program's medical director and advisory board.

Applicants must have a current EMT basic certification (or have completed EMS F170—Emergency Medical Technician I), and have completed HLTH F114—Fundamentals of Anatomy and Physiology.

Major — AAS Degree

1. Complete the general university requirements (page 95).

2. Complete the AAS degree requirements (page 99).

3. Complete the following:*
   EMS F170—EMT: Emergency Medical Technician I 6
   EMS F181—Clinical Rotation I 4
   EMS F183—Clinical Rotation II 4
   EMS F280—Paramedicine I..12
   EMS F282—Paramedicine II 12
   EMS F283—Paramedic Internship 12
   HLTH F114—Fundamentals of Anatomy and Physiology (4)
       or BIOL F213X—Human Anatomy and Physiology I (4)
           and BIOL F214X—Human Anatomy and
           Physiology II (4) .... 4 – 8

4. Minimum credits required .... 69 – 73
* *Student must earn a C- grade or better in each course.*

PILOTING, PROFESSIONAL

College of Rural and Community Development
Community and Technical College
907-455-2851
www.ctc.uaf.edu/programs/pilot/

AAS Degree

Minimum Requirements for Degree: 60 credits

The professional piloting program offers a series of aviation piloting courses ranging from ground school classes for private through commercial flying, arctic survival, weather and aircraft maintenance. Rated pilots or military aviators may be eligible for credit based upon experience and FAA certificates, which may be applied towards an associate of applied science degree in professional piloting or a minor in aviation technology. See department personnel for details. UAF does not offer flight instruction.

A minor in aviation technology will give students an opportunity to become familiar with the field of aviation, with particular emphasis on the use of aviation as a tool and economic process within the Alaska environment.

Major — AAS Degree

1. Complete the general university requirements (page 95).

2. Complete the AAS degree requirements (page 99).

3. Complete the following program (major) requirements:*
   a. AVTY F100—Private Pilot Ground School 4
      AVTY F102—Commercial Ground Instruction 3
      AVTY F155—Preventive Maintenance for Pilots (3)
         or AFPM advisor-approved course(s) (3)...........................3
      AVTY F200—Instrument Ground School...4
      AVTY F231—Arctic Survival...3
      AVTY F235—Elements of Weather 3
   b. Complete 15 credits of program-approved major specialty electives*
      (see web page or contact department for suggested list of courses,
      many of which the applicant may obtain credit for based upon
      experience or ratings).

4. Complete general electives..10

5. Minimum credits required 60
* *Students must earn a C- grade or better in each course.*

Minor

Aviation Technology

1. Complete the following foundation courses:
   AVTY F100—Private Pilot Ground School 4

2. Complete the following core courses:
   AVTY F155—Preventive Maintenance for Pilots 3
   AVTY F231—Arctic Survival...3
   AVTY F235—Elements of Weather 3

3. Complete 3 credits from the following electives:
   AVTY Elective (3)
      or AFPM advisor-approved elective (3) 3

4. Minimum credits required 16

POWER GENERATION

College of Rural and Community Development
Community and Technical College
907-479-2436
www.ctc.uaf.edu/programs/pgen/

Certificate

Minimum Requirements for Certificate: 37 credits

The power generation program will help students develop entry-level skills needed in industrial and commercial electrical power generation and maintenance. Courses combine the technical know-how and hands-on experience necessary to develop entry level workers in a variety of power generation and industrial fields. Students will become familiar with the operation and maintenance of the standard equipment encountered in the power generation industry.

Certificate Program

1. Complete the general university requirements (page 95).

2. Complete the certificate requirements (page 97).

3. Complete the following program (major) requirements:*
   PGEN F101—Introduction to Power Generation, Distribution
   and Alternative Energy...3
   PGEN F102—Basic Electricity for Power Generation Operators......4
   PGEN F103—Introduction to Power Generation: Maintenance.......4
   PGEN F104—Gas and Steam Turbines; Co-Generation and
   Combined Cycle Technologies 4
   PRT F110—Introduction to Occupational Safety, Health and
   Environmental Awareness 3
   PRT F120—Water Quality Management for Process Industries.......4
   PRT F140—Industrial Process Instrumentation I..............................3
   WMT F103—Welding I 3

4. Minimum credits required 37
* *Students must earn a C grade or better in each course.*

PROCESS TECHNOLOGY

College of Rural and Community Development
Community and Technical College
907-479-2436
www.ctc.uaf.edu/programs/protech/

AAS Degree
Minimum Requirements for Degree: 63 credits

The process technology program prepares students for employment as operations technicians in the process industry, which includes oil and gas production, mining and milling, transportation and refining, chemical manufacturing, power generation, utilities, wastewater treatment facilities maintenance, and food processing.

This AAS degree program incorporates technical and academic courses covering topics such as pumps and turbines, instrumentation, safety and quality control. Summer internships give students valuable practical experience and exposure to the true nature of process technology careers.

Major — AAS Degree

1. Complete the general university requirements (page 95).

2. Complete the AAS degree requirements (page 99).

3. Demonstrate competence in computer technology skills (through the Process Technology program assessment) or complete one of the following:*
   DRT F110—Computer Literacy for Technicians (3)
      or CIOS F150—Computer Business Applications (3)
      or a program advisor-approved computer applications
      course (3) 3

4. Complete the following program (major) requirements*:
   PHYS F115X—Physical Science I (4)
      and CHEM F100X—Chemistry in Complex Systems (4)
      or 8 credits of program advisor-approved natural
      science courses...8
   PRT F101—Introduction to Process Technology.................3
   PRT F110—Introduction to Occupational Safety, Health and Environmental Awareness 3
   PRT F130—Process Technology I: Equipment.....................4
   PRT F140—Industrial Process Instrumentation I................3
   PRT F144—Industrial Process Instrumentation II...............3
   PRT F230—Process Technology II: Systems 4
   PRT F231—Process Technology III: Operations.................4
   PRT F250—Process Troubleshooting.................................3
   PRT F255—Process Technology Quality 1
   Major elective credits**..9

5. Minimum credits required: 63
*   Students must earn a C grade or better in each course.
** Electives must be approved by the Process Technology Program advisor.

RENEWABLE RESOURCES

College of Rural and Community Development
Rural and Economic Development Division
Bristol Bay Campus 800-478-5109 or 907-842-5109
Chukchi Campus 907-442-3400
Interior-Aleutians Campus 907-474-5439
Kuskokwim Campus 907-543-4500
Northwest Campus 907-443-2201
www.uaf.edu/rural/

AAS Degree
Minimum Requirements for Degree: 60 credits

The renewable resources degree program is offered by the College of Rural and Community Development on the Fairbanks campus and through rural campuses. Students interested in the degree should first contact a faculty advisor at the Bristol Bay Campus (toll free number above) to discuss program content, requirements and expectations. This two-year AAS degree program helps students gain employment with state, federal or tribal resource management agencies, Alaska Native Claims Settlement Act (ANCSA) corporations or other entities. For those already employed in this field, this program provides an opportunity to improve job skills.

Major — AAS Degree

1. Complete the general university requirements (page 95).

2. Complete the AAS degree requirements. (See page 99. As part of the AAS degree requirements, complete MATH F103X or MATH F107X, CHEM F103X or CHEM F105X.)

3. Complete the following program (major) requirements:*
   a. Complete the following:
   ECON F235—Introduction to Natural Resource Economics............3
   NRM F101—Natural Resources Conservation and Policy.................3
   NRM F204—Public Lands Law and Policy 3
   RD F255—Rural Alaska Land Issues................................3
   RD F280—Resource Management Research Techniques..................3
   b. Complete one course from each of the following groups:
   Group 1
   BIOL F104—Natural History of Alaska 3
   BIOL F104X—Natural History of Alaska 4
   BIOL F115X—Fundamentals of Biology I...........................4

   Group 2
   GEOG F111—Elements of Physical Geography 3
   GEOG F111X—Earth and Environment: Elements
   of Physical Geography 4
   GEOS F100X—Introduction to Earth Science 4
   NRM F380W—Soils and the Environment 3

   Group 3
   NRM F102—Practicum in Natural Resources Management...... 1 – 2
   WLF F304—Wildlife Internships .... 1 – 3
   c. Complete the following:
   CIOS F100—Introduction to Personal Computers (1)
      and CIOS F111—Computer Software for Beginners (2)
      or CIOS F150—Computer Business Applications (3)....................3
   FISH F101—Introduction to Fisheries (3)
      and WLF F101—Survey of Wildlife Science (1)
      or ABUS F223—Real Estate Law (3)
      and RD F256—Co-Management of Renewable Resources (3)
      or BIOL F271—Principles of Ecology (4)
      and WLF F322W— Principles and Techniques of
      Wildlife Management (3) .... 4 – 7
   d. Complete 9 – 14 credits from the following courses:
   ANS F310—The Alaska Native Lands Settlement................3
   ANTH F242—Native Cultures of Alaska 3

UA is an AA/EO employer and educational institution and prohibits illegal discrimination against any individual: www.alaska.edu/titleIXcompliance/nondiscrimination.

CERTIFICATES & ASSOCIATE DEGREES

BIOL F116X—Fundamentals of Biology II 4
BIOL F150—Introduction to Marine Biology....................3
BIOL F239—Introduction to Plant Biology.......................4
BIOL F271—Principles of Ecology....................................4
CE F112—Elementary Surveying.......................................3
EMS F152—Emergency Trauma Training First Responder..............3
ENGL F314W,O/2—Technical Writing 3
FISH F101—Introduction to Fisheries...............................3
MIN F101—Minerals, Man and the Environment 3
NRM F251—Silvics and Dendrology 4
NRM F304O—Perspectives in Natural Resources Management......3
NRM F340—Natural Resources Measurement and Inventory 3
RD F265—Perspectives on Subsistence in Alaska.................3
RD F492—Rural Development Leadership Seminar 3
STAT F200X—Elementary Probability and Statistics.........3
WLF F101—Survey of Wildlife Science...............................1
WLF F322W— Principles and Techniques of Wildlife
Management..3
Or other advisor-approved renewable resource related
electives ....9 – 14

4. Minimum credits required 60
* *Students must earn a C- grade or better in each course.*
Note: Prerequisites required for many courses.

RURAL HUMAN SERVICES

College of Rural and Community Development
Statewide Programs 907-474-5440
Chukchi Campus 907-442-3400
Interior-Aleutians Campus 907-474-5440
Kuskokwim Campus 907-543-4500
Northwest Campus 907-443-2201
www.uaf.edu/rhs/

Certificate
Minimum Requirements for Certificate: 32 credits

The rural human services programs are designed to develop strong and healthy rural Alaska Native individuals, families and communities. They provide entry-level training for students preparing for careers as natural helpers/healers in village-based public, private and volunteer human service organizations. The curriculum draws extensively on resource people from the Native community and reflects a strong multicultural orientation that validates, incorporates and builds on Native values and principles.

The certificate program is a concentrated course of study focused on rural behavioral health services. Both the Alaska Division of Behavioral Health and the Alaska Native Tribal Health Consortium are currently developing and defining competencies and credentials for Alaska behavioral health care workers.

The certificate program provides additional credentials for service providers who work in related fields and would like additional training in rural behavioral health services. Providers who may want such training could include health aides, family service workers, correctional workers and teachers. Courses are presented as a series of four intensive three-week training sessions at selected delivery sites. A practicum and electives round out the program.

Admission is open to anyone employed by a regional Native health corporation or local entity providing village-based human services, or to individuals recognized by their communities as natural helpers/healers. A high school diploma or GED and/or previous training or work experience in the delivery of village-based human services are recommended but not required.

This degree program is delivered collaboratively within the UA system.

Certificate Program

1. Complete the general university requirements (page 95).

2. Complete the certificate requirements. (See page 97. As part of the certificate requirements, complete RHS F110 and F115 for the human relations requirement. The communication and computation courses must be completed from the certificate requirements.)

3. Complete the following:
   RHS F120—Family Systems I* 2
   RHS F130—Processes of Community Change 2
   RHS F140—Alaska Native Values and Principles...............1
   RHS F150—Introduction to Rural Counseling*..................2
   RHS F220—Family Systems II* 2
   RHS F250—Rural Counseling II*..2
   RHS F260—Addictions: Intervention and Treatment* 2
   RHS F265—Interpersonal Violence*...................................2
   RHS F275—Introduction to Recovery and Mental Illness.................2
   RHS F285—Case Management* 2
   RHS F287—Rural Human Services Practicum.....................4
   RHS F290—Grief and Healing*...2

4. Minimum credits required 32
* *The Alcohol and Drug Abuse Certification review board has approved these courses toward certification or recertification of Substance Abuse Counselors in the state of Alaska.*
Note: Students spend time in intensive study at selected delivery sites.

SAFETY, HEALTH AND ENVIRONMENTAL AWARENESS TECHNOLOGY

College of Rural and Community Development
Community and Technical College
907-479-2436
www.ctc.uaf.edu/osh/

Certificate
Minimum Requirements for Certificate: 37 credits

This program develops entry-level skills in industrial safety, health and environmental awareness. Courses combine the technical know-how, use of state-of-the-art equipment and hands-on experience necessary for students to obtain work in a variety of safety-related industrial fields.

Students are taught the necessary objectives and skills required to take an entry-level Occupational Health and Safety Technologist exam when coupled with other requirements as set forth by the Council on Certification of Health, Environmental and Safety Technologists.

As the process industries expand and automate, the need for qualified safety technicians increases. The Community and Technical College and the Process Technology Program are active members of the American Society of Safety Engineers.

Certificate Program

1. Complete the general university requirements (page 95).

2. Complete the certificate requirements (page 97).

3. Complete the following program requirements:
   PRT F101—Introduction to Process Technology...............3
   PRT F110—Introduction to Occupational Safety,
   Health and Environmental Awareness...............................3
   OSH F108—Injury Prevention and Risk Management.......4
   OSH F110—Program Assessment, Development, and
   Implementation 4
   OSH F120—Safety Program Management and Recordkeeping........3
   OSH F180—Introduction to Industrial Hygiene 4
   OSH F201—Workplace Injury and Incident Evaluations..................4
   OSH F250—Hazardous Material Operation.......................3

4. Minimum credits required 37
* *Students must earn a C grade or better in each course.*

TRIBAL MANAGEMENT

College of Rural and Community Development
Department of Indigenous, Community and Tribal Programs
Interior-Aleutians Campus
907-474-5710
www.uaf.edu/iac/programs/tribal-management/

Certificate; AAS Degree

Minimum Requirements for Certificate: 30 credits;
for AAS Degree: 60 credits

The Tribal Management program teaches the job-related skills and knowledge needed for positions within tribal and local governments and other organizations in rural Alaska. In response to the broad variety of job-related skills needed by tribal councils, administrators and staff, the Tribal Management Certificate and AAS degree programs are designed to allow students to specialize their education to target specific employment related skills. Students perform specific tasks, learn basic management rationale and explore issues in tribal government. The Tribal Management program provides students with fundamental knowledge of tribal governance and finance as well as hands-on education and training in subject areas important to tribal governments. Students work closely with their academic advisor to choose courses that target their employment based needs and are encouraged to specialize their education to a specific area of study, or take courses from multiple areas of study.

Students entering either the certificate or AAS degree program will meet with a faculty advisor to discuss program content, requirements and planning.

Certificate Program

1. Complete the general university requirements (page 95).

2. Complete the certificate requirements (page 97).

3. Complete the following program requirements:
   TM F101—Introduction to Tribal Management 3
   TM F105—Introduction to Tribal Finance Applications 3
   TM F199—Tribal Management Practicum I 3

4. Complete 12 credits from the following courses. Students can specialize in one area of study or can choose from multiple areas of study. Course substitutions relevant to Tribal Management may be made with the approval of the Tribal Management faculty advisor.

   #### Environmental and Natural Resource Management
   BIOL F104X—Natural History of Alaska 4
   ENVI F101—Introduction to Environmental Science 3
   FISH F101—Introduction to Fisheries 3
   NRM F101—Natural Resources Conservation and Policy.................3
   RD F265—Perspectives on Subsistence in Alaska 3
   TM F120—Introduction to Tribal Natural Resource Management .3
   TM F140—Introduction to Geospatial Data 1
   TM F141—Practical GIS for Rural Alaska 2
   TM F182—Introduction to NEPA for Rural Transportation.............1

   #### Community Health and Wellness
   ANS F242—Native Cultures of Alaska 3
   HUMS F101—Introduction to Human Services................................3
   HUMS F105—Personal Awareness and Growth 3
   HUMS F260—History of Alcohol in Alaska....................................1
   PSY F101—Introduction to Psychology 3
   RHS F130—Process of Community Change.....................................2
   RHS F140—Alaska Native Values and Principles............................1
   RNS F101—Rural Nutrition and Health Change.............................1
   RNS F105—Nutritional Science for the Generations......................3
   RNS F120—Alaska Native Food Systems..3
   RNS F201—Community Nutrition Interventions............................2
   RNS F210—Introduction to Rural Nutrition Counseling................2

Tribal Governance and Law
PS F100X—Political Economy 3
PS/NORS F205—Leadership, Citizenship and Choice.....................3
PS F263—Alaska Native Politics 3
RD F110—ANCSA: Land Claims in the 21st Century.......................1
TM F110—Tribal Court Development for Alaska Tribes 1
TM F111—Children's Topics in Tribal Justice................................1
TM F112—Federal Indian Law for Alaska Tribes............................1
TM F114—Tribal Justice Responses to Community and
Domestic Violence..1
TM F115—Tribal Court Administration 1
TM F250—Current Topics in Tribal Government 1

Community and Economic Development
ABUS F101—Principles of Accounting I..3
ABUS F151—Village Based Entrepreneurship .... 1 – 3
ABUS F158—Introduction to Tourism .... 1 – 3
ABUS F179—Fundamentals of Supervision 3
ABUS F235—Fund Accounting for Non-Profits 3
BA F151—Introduction to Business...3
CTT F104—Basic Communication and Employability Skills 2
ECON F100X—Political Economy..3
ECON F111—Economics of Rural Alaska 3
RD F250—Grant Writing for Community Development .... 1 – 3
TM F130—Introduction to Utility Management..............................2
TM F131—Organizational Management for Utilities.......................2
TM F134—Financial Management for Utilities................................2

Tribal Planning
ABUS F179—Fundamentals of Supervision 3
ABUS F272—Small Business Planning..3
CTT F240—Introduction to Project Development for Tribal
Residential Construction 3
RD F250—Grant Writing for Community Development 3
RD F268—Rural Tourism: Planning and Principles .... 1 – 3
TM F138—Planning for Utilities 2
TM F271—Rural Transportation Planning.......................................1

Tribal Transportation
TM F170—Fundamentals of Rural Transportation 3
TM F171—Introduction to Indian Reservations Road Program 1
TM F172—Conducting a Transportation Inventory.........................1
TM F173—Traffic Monitoring for Rural Transportation 1
TM F174—Basics of a Good Gravel Road 1
TM F182—Introduction to NEPA for Rural Transportation............1
TM F271—Rural Transportation Planning.......................................1
TM F272—Finance Applications for Rural Transportation 1
TM F273—Transportation Improvement Programs and
Control Schedules...1
TM F274—Road Inventory Field Data Systems 1
TM F276—Project Management for Rural Transportation..............4

5. Minimum credits required 30

Major — AAS Degree

1. Complete the general university requirements (page 95).

2. Complete the AAS degree requirements (page 99).

3. Complete the following program (major) requirements:
   TM F101—Introduction to Tribal Management 3
   TM F105—Introduction to Tribal Finance Applications 3
   TM F199—Tribal Management Practicum I 3
   TM F201—Advanced Tribal Management 3
   TM F205—Advanced Tribal Finance Applications...........................3
   TM F299—Tribal Management Practicum II 3

CERTIFICATES & ASSOCIATE DEGREES

4. Complete 27 credits from the following courses:
Students can specialize in one area of study or can choose from multiple areas of study. Course substitutions relevant to tribal management may be made with the approval of the tribal management faculty advisor.

Environmental and Natural Resource Management
BIOL F104X—Natural History of Alaska 4
ENVI F101—Introduction to Environmental Science 3
FISH F101—Introduction to Fisheries........................3
FISH F261—Introduction to Fisheries Utilization 3
NRM F101—Natural Resources Conservation and Policy........................3
NRM F204—Public Lands Law and Policy 3
RD F245—Fisheries Development in Rural Alaska 3
RD F255—Rural Alaska Land Issues........................3
RD F265—Perspectives on Subsistence in Alaska........................3
RD F280—Resource Management Research Techniques........................3
TM F120—Introduction to Tribal Natural Resource Management........................3
TM F140—Introduction to Geospatial Data 1
TM F141—Practical GIS for Rural Alaska 2
TM F142—Practical GIS Project Design........................2
TM F182—Introduction to NEPA for Rural Transportation........................1
TM F225—Cross Connections: Adapting and Integrating Principles of Management and Conservation........................3

Community Health and Wellness
ANS F242—Native Cultures of Alaska 3
ANS F330—Yup'ik Parenting and Development........................ 1 – 3
HUMS F105—Personal Awareness and Growth 3
HUMS F120—Cultural Diversity in Human Services........................3
HUMS F205—Basic Principles of Group Counseling 3
HUMS F260—History of Alcohol in Alaska........................1
HUMS F265—Substance Abuse and the Family .... 1 – 2
PSY F101—Introduction to Psychology 3
RHS F130—Process of Community Change........................2
RHS F140—Alaska Native Values and Principles........................1
RHS F150—Introduction to Rural Counseling 2
RHS F275—Introduction to Recovery and Mental Illness........................2
RHS F280—Case Management 2
RNS F101—Rural Nutrition and Health Change........................1
RNS F105—Nutritional Science for the Generations........................3
RNS F120—Alaska Native Food Systems........................3
RNS F201—Community Nutrition Interventions........................2
RNS F210—Introduction to Rural Nutrition Counseling........................2
SWK F103—Introduction to Social Work 3
SWK F220—Ethics, Values and Social Work Practice........................3
SWK F320W—Rural Social Work........................3

Tribal Governance and Law
ANS F310—Indigenous Land Settlements........................3
ANS F325—Native Self Government........................3
PS F100X—Political Economy 3
PS/NORS F205—Leadership, Citizenship and Choice........................3
PS F212—Introduction to Public Administration 3
PS F263—Alaska Native Politics 3
RD F110—ANCSA: Land Claims in the 21st Century........................1
RD F265—Perspectives on Subsistence in Alaska........................3
TM F110—Tribal Court Development for Alaska Tribes 1
TM F111—Children's Topics in Tribal Justice........................1
TM F112—Federal Indian Law for Alaska Tribes........................1
TM F113—Tribal Code Development........................1
TM F114—Tribal Justice Responses to Community and Domestic Violence........................1
TM F115—Tribal Court Administration 1
TM F116—Juvenile Justice in Tribal Court 1
TM F117—Tribal Court Enforcement of Decisions........................1
TM F118—Tribal Community and Restorative Justice........................1
TM F250—Current Topics in Tribal Government 1

Community and Economic Development
ABUS F101—Principles of Accounting I........................3
ABUS F151—Village Based Entrepreneurship .... 1 – 3
ABUS F158—Introduction to Tourism .... 1 – 3
ABUS F161—Personal and Business Finance........................3
ABUS F179—Fundamentals of Supervision........................3
ABUS F235—Fund Accounting for Non-Profits 3
ABUS F263—Public Relations........................3
BA F151—Introduction to Business........................3
CTT F104—Basic Communication and Employability Skills 2
ECON F100X—Political Economy........................3
ECON F111—Economics of Rural Alaska 3
RD F110—ANCSA: Land Claims in the 21st Century........................1
RD F250—Grant Writing for Community Development .... 1 – 3
TM F130—Introduction to Utility Management........................2
TM F131—Organizational Management for Utilities........................2
TM F134—Financial Management for Utilities........................2
TM F136—Personnel Management for Utilities........................2

Tribal Planning
ABUS F179—Fundamentals of Supervision........................3
ABUS F272—Small Business Planning........................3
CTT F240—Introduction to Project Development for Tribal Residential Construction 3
RD F250—Grant Writing for Community Development 3
RD F268—Rural Tourism: Planning and Principles .... 1 – 3
RD F351—Strategic Planning for Rural Communities........................3
TM F138—Planning for Utilities 2
TM F271—Rural Transportation Planning........................1

Tribal Transportation
TM F170—Fundamentals of Rural Transportation 3
TM F171—Introduction to Indian Reservations Road Program 1
TM F172—Conducting a Transportation Inventory........................1
TM F173—Traffic Monitoring for Rural Transportation 1
TM F174—Basics of a Good Gravel Road 1
TM F182—Introduction to NEPA for Rural Transportation........................1
TM F271—Rural Transportation Planning........................1
TM F272—Finance Applications for Rural Transportation 1
TM F273—Transportation Improvement Programs and Control Schedules 1
TM F274—Road Inventory Field Data Systems 1
TM F276—Project Management for Rural Transportation 4

5. Minimum credits required 60

VETERINARY SCIENCE

College of Rural and Community Development
Interior-Aleutians Campus 907-474-5439
Chukchi Campus 907-442-3400
www.uaf.edu/drumbeats/veterinary-science/

Certificate

This program is presently suspended.

WELDING AND MATERIALS TECHNOLOGY

College of Rural and Community Development
Community and Technical College
907-455-2932
www.ctc.uaf.edu/programs/weld/

Welding is an important industrial skill with applications in agriculture, mining, transportation, aviation, oil and gas, and construction. Training ranges from welding basics to advanced pipe and metal plate fabrication.

Classes are small to offer hands-on training and maximum interaction between the student and instructor. Students may request credit by examination for any WMT class. Advanced students may work toward American Welding Society certification or pursue advanced projects. Contact the department for details.

The following courses are part of the welding and materials technology program:

WMT F101—Introduction to Welding.....................................3
WMT F102—Intermediate Welding.......................................3
WMT F103—Welding I 3
WMT F105—Welding II 3
WMT F106—Heat Treating/Metal Finishing/Knife Making I 3
WMT F117—Oxy-Acetylene Welding and Cutting 3
WMT F130—Shielded Metal Arc Welding (SMAW) .... 1 – 3
WMT F150—Gas Tungsten Arc Welding (GTAW).................. 1 – 3
WMT F160—Gas Metal Arc Weld Alum (GMAW) .... 1 – 3
WMT F170—Military Training Welding I................................3
WMT F206—Heat Treating/Metal Finishing/Knife Making II........3
WMT F210—Uphill Pipe Welding 3
WMT F241—Gas Tungsten Arc and Gas Metal Arc Welding...........3
WMT F270—Military Training Welding II 3
WMT F280—Military Training Welding III 3
WMT F290—Welding Proficiency Maintenance 3

*   *Students must earn a C grade or better in each course.*

YUP'IK LANGUAGE PROFICIENCY

College of Liberal Arts
Alaska Native Languages Program
907-474-7874
www.uaf.edu/anlc/classes/
Program available at Kuskokwim Campus only

Certificate; AAS Degree

Minimum Requirements for Certificate: 30 credits;
for Degree: 60 credits

The Yup'ik language proficiency program is designed to provide students with the opportunity to pursue structured study of Yup'ik in order to develop intermediate-level speaking and listening skills, as well as basic reading and writing abilities in the language. The certificate may serve as a step on the way to a two-year or four-year degree.

Certificate Program

1. Complete the general university requirements (page 95).

2. Complete the certificate requirements. (See page 97. As part of the certificate requirements, the communication, computation and human relations content is embedded in some of the major required courses for this program.)

3. Complete the following:
  a. ESK F208—Yup'ik Composition 3
      ESK F130—Beginning Yup'ik Grammar 3
      ESK F240—Introduction to Reading Yup'ik......................3
  b. Complete one of the following sequences:
      ESK F121—Elementary Central Yup'ik Apprenticeship I 4
      ESK F122—Elementary Central Yup'ik Apprenticeship II 4
      ESK F123—Elementary Central Yup'ik Apprenticeship III...............4
      or
      ESK F103—Conversational Central Yup'ik............................3
      ESK F104—Conversational Central Yup'ik............................3
      ESK F203—Intermediate Central Yup'ik..............................3
      ESK F204—Intermediate Central Yup'ik..............................3
  c. Complete one of the following sequences:
      ESK F221—Intermediate Central Yup'ik Apprenticeship I 3
      ESK F222—Intermediate Central Yup'ik Apprenticeship II..............3
      ESK F223—Intermediate Central Yup'ik Apprenticeship III...........3
      or
      ESK F205—Regaining Fluency in Yup'ik 3
      ESK F206—Regaining Fluency in Yup'ik 3
      ESK F223—Intermediate Central Yup'ik Apprenticeship III...........3

4. Minimum credits required 30

Major — AAS Degree

1. Complete the general university requirements (page 95).

2. Complete the AAS degree requirements (page 99).

3. Complete the following program (major) requirements:*
  a. Complete the following:
      ESK F208—Yup'ik Composition 3
      ESK F130—Beginning Yup'ik Grammar 3
      ESK F240—Introduction to Reading Yup'ik......................3
  b. Complete one of the following sequences:
      ESK F121—Elementary Central Yup'ik Apprenticeship I 4
      ESK F122—Elementary Central Yup'ik Apprenticeship II 4
      ESK F123—Elementary Central Yup'ik Apprenticeship III...............4
      or
      ESK F103—Conversational Central Yup'ik............................3
      ESK F104—Conversational Central Yup'ik............................3
      ESK F203—Intermediate Central Yup'ik..............................3
      ESK F204—Intermediate Central Yup'ik..............................3
  c. Complete one of the following sequences:
      ESK F221—Intermediate Central Yup'ik Apprenticeship I 3
      ESK F222—Intermediate Central Yup'ik Apprenticeship II..............3
      ESK F223—Intermediate Central Yup'ik Apprenticeship III...........3
      or
      ESK F205—Regaining Fluency in Yup'ik 3
      ESK F206—Regaining Fluency in Yup'ik 3
      ESK F223—Intermediate Central Yup'ik Apprenticeship III...........3

4. Minimum credits required 60

*   *Students must earn a C- grade or better in each course.*