

# Course Descriptions



**ACCT - Accounting**

*Offered through the College of Business & Public Policy  
Edward & Cathryn Rasmuson Hall (RH), Room 203, 786-4100  
[www.cbpp.uaa.alaska.edu/accounting.asp](http://www.cbpp.uaa.alaska.edu/accounting.asp)*

Students taking any ACCT, BA, CIS, ECON, LGOP, LOG or PADM course will be charged a single lab fee of \$25 for the semester. Applies to Elmendorf Air Force Base or Fort Richardson classes only when specifically noted on UAOnline. Does not apply to Chugiak-Eagle River classes.

**ACCT A101 Principles of Financial Accounting I 3 CR**

Contact Hours: 3 + 0

Registration Restrictions: MATH A055 with minimum grade of C or approved UAA mathematics placement test score.

Special Note: ACCT A101 and ACCT A102 will satisfy requirement for ACCT A201. AAS accounting majors must take ACCT A101 and ACCT A102.

First semester introductory financial accounting. Emphasizes procedures for recording, analyzing, and summarizing accounting transactions. Includes discussion of the following asset categories: cash, accounts receivable, and inventory. Taught from the perspective of the accountant or bookkeeper who is responsible for recording accounting transactions.

**ACCT A102 Principles of Financial Accounting II 3 CR**

Contact Hours: 3 + 0

Prerequisites: ACCT A101 with minimum grade of C.

Special Note: ACCT A101 and ACCT A102 will satisfy requirement for ACCT A201. AAS accounting majors must take ACCT A101 and ACCT A102.

Second semester introductory financial accounting. Emphasizes procedures for recording, analyzing, and summarizing accounting transactions dealing with long-term assets, current and long-term liabilities, as well as stockholder and partnership equity transactions, and the statement of cash flows. Taught from the perspective of the accountant/bookkeeper who is responsible for recording accounting transactions.

**ACCT A120 Bookkeeping for Business I 3 CR**

Contact Hours: 3 + 0

Special Note: May be offered as either classroom or open-entry, individualized course.

Basic concepts and procedures of practical bookkeeping. Fundamental principles and practices necessary to record and report financial data in a service and merchandising business for manual systems and computerized systems.

**ACCT A201 Principles of Financial Accounting 3 CR**

Contact Hours: 3 + 0

Registration Restrictions: MATH A105 with minimum grade of C or approved UAA mathematics placement test score.

Special Note: ACCT A101 and ACCT A102 will satisfy the requirement for ACCT A201. AAS accounting majors must take ACCT A101 and ACCT A102.

Introduction to financial accounting concepts and principles. Emphasizes the recognition and recording of financial information, the creation and understanding of financial statements, and the role accounting information takes in business and society.

**ACCT A202 Principles of Managerial Accounting 3 CR**

Contact Hours: 3 + 0

Prerequisites: CIS A110 and [ACCT A101 with minimum grade of C and ACCT A102 with minimum grade of C] or ACCT A201 with minimum grade of C.

Studies the generation and analysis of accounting information and its use by managers as they engage in planning, control, and decision-making activities in business and non-business organizations. Topics include product costing, cost-volume-profit analysis, profit planning, variance analysis, and relevant costs for decision making.

**ACCT A210 Income Tax Preparation 3 CR**

Contact Hours: 3 + 0

Prerequisites: [ACCT A101 and ACCT A102] or ACCT A201 and CIS A110.

Preparation of individual income tax returns, manually and computerized (using the latest in tax preparation software). Tax research and tax planning with emphasis on primary and administrative sources of income tax law. Emphasis is on the sources and interpretation of the tax laws and principles as well as how they apply to individuals.

**ACCT A216 Accounting Information Systems I 3 CR**

Contact Hours: 3 + 0

Prerequisites: [ACCT A101 with minimum grade of C and ACCT A102 with minimum grade of C] or ACCT A201 with minimum grade of C.

Studies the role and importance of the Accounting Information System (AIS) within an organization, including an in-depth examination of the accounting cycle from transaction initiation through financial statement preparation and analysis. Includes manual practice sets for hands-on application. Exposure to systems documentation, internal controls, fraud process, and classic accounting frauds and scandals.

**ACCT A222 Introduction to Computerized Accounting 3 CR**

Contact Hours: 3 + 0

Prerequisites: [ACCT A101 and ACCT A102] or ACCT A201 and CIS A110. Special Fees.

Introduction to processing accounting information using commercial accounting software. Illustrates conversion from manual to computerized accounting system; includes maintenance of chart of accounts and all master files; processing sales, receivables, and cash receipts, purchases, payables, and cash payments; preparation of financial statements and other reports. Includes only minimal coverage of the payroll function.

**ACCT A225 Payroll Accounting 3 CR**

Contact Hours: 3 + 0

Prerequisites: [ACCT A101 and ACCT A102] or ACCT A201 and CIS A110. Special Fees.

Introduces students to the federal and state laws and regulations that affect payroll and employment practices. Topics covered include calculation of wages, withholding taxes, health, retirement, and other voluntary deductions and preparation of payroll tax reports. Also includes recording and posting payroll information to accounting records.

**ACCT A230 Workpaper Preparation and Presentation 3 CR**

Contact Hours: 3 + 0

Prerequisites: [ACCT A101 with minimum grade of C and ACCT A102 with minimum grade of C] and ACCT A222 with minimum grade of C and CIS A110 with minimum grade of C.

Emphasizes preparation and analysis of workpapers to support year-end corporate financial statements. Includes an in-depth analysis of major balance sheet accounts and a study of financial statement presentation formats and requirements.

**ACCT A295 Entry-Level Accounting Internship 3 CR**

Contact Hours: 0 + 9

Prerequisites: [ACCT A101 with minimum grade of C and ACCT A102 with minimum grade of C] and ENGL A111 and [COMM A111 or COMM A235 or COMM A237 or COMM A241].

Registration Restrictions: Permission of College of Business & Public Policy Accounting Faculty Internship Coordinator; Cumulative GPA of 2.75 or higher; must be an AAS Accounting major.

Grade Mode: Pass/No Pass.

Special Fees.

Special Note: May be repeated for credit, but only 3 credits will apply to degree requirements.

Work experience in an approved bookkeeping or clerical position with supervision and training in various phases of accounting.

**ACCT A301 Intermediate Accounting I 3 CR**

Contact Hours: 3 + 0

Prerequisites: ACCT A202 with minimum grade of C and ACCT A216 with minimum grade of C.

Registration Restrictions: College of Business & Public Policy majors must be admitted to upper-division standing.

In-depth study of the accounting sequence, principles and rules governing financial statements and balance sheet accounts including cash; receivables; inventory; property, plant and equipment; and intangibles.

**ACCT A302 Intermediate Accounting II 3 CR**

Contact Hours: 3 + 0

Prerequisites: ACCT A301 with minimum grade of C.

Registration Restrictions: College of Business & Public Policy majors must be admitted to upper-division standing.

A continuation of the study of intermediate accounting including the principles governing financial reporting of investments, liabilities, stockholders' equity, revenues and cash flows.

<p><b>ACCT A310</b>                      <b>Income Tax</b>    <b>3 CR</b>  Contact Hours: 3 + 0  Prerequisites: ACCT A202 with minimum grade of C and ACCT A216 with minimum grade of C.  Registration Restrictions: College of Business &amp; Public Policy majors must be admitted to upper-division standing.  Special Fees.  A study of the federal income tax law as it applies to individuals, sole proprietors, and property transactions. Emphasis is on research, theory, application, and tax planning.</p>	<p><b>ACCT A495</b>                      <b>Advanced Accounting Internship</b>    <b>3 CR</b>  Contact Hours: 0 + 9  Prerequisites: ACCT A301 with minimum grade of C.  Registration Restrictions: Must be admitted to the BBA Accounting Program; Permission of College of Business &amp; Public Policy Accounting Faculty Internship Coordinator; upper-division standing; cumulative GPA of 2.75 or higher.  Grade Mode: Pass/No Pass.  Special Fees.  Special Note: May not be used to satisfy upper-division Accounting elective requirement. May be repeated for credit but only 6 credits will apply to degree requirements.  Integrates classroom study with work experience in an approved accounting position with supervision and training in the public and/or private sectors.</p>
<p><b>ACCT A316</b>                      <b>Accounting Information Systems II</b>    <b>3 CR</b>  Contact Hours: 3 + 0  Prerequisites: ACCT A202 with minimum grade of C and ACCT A216 with minimum grade of C and (CIS A305 with minimum grade of C or concurrent enrollment).  Registration Restrictions: College of Business &amp; Public Policy majors must be admitted to upper-division standing.  Studies the Accounting Information System (AIS) as an integral component of an enterprise information system. Emphasizes data modeling and database design of accounting systems using the Resources-Events-Agents (REA) model as the springboard toward the design of AIS components in a relational database. Covers internal controls and systems documentation as aids to database design and modeling. Includes computerized practice set for hands-on application.</p>	<p><b>ACCT A601</b>                      <b>Accounting Foundations for Executives</b>    <b>3 CR</b>  Contact Hours: 3 + 0  Registration Restrictions: Graduate Standing.  Special Note: Offered Fall Semesters.  A traditional survey of accounting for the core requirement in the MBA program. Covers common financial and managerial topics with brief exposure to systems, auditing, non-profit, partnerships and joint ventures.</p>
<p><b>ACCT A342</b>                      <b>Managerial Cost Accounting</b>    <b>3 CR</b>  Contact Hours: 3 + 0  Prerequisites: ACCT A202 with minimum grade of C.  Registration Restrictions: College of Business &amp; Public Policy majors must be admitted to upper-division standing.  Accounting as a planning and control device is studied by applying the concepts of cost flow, job order and process costing, flexible budgeting, standard cost analysis and relevant costing models.</p>	<p><b>ACCT A650</b>                      <b>Seminar in Executive Uses of Accounting</b>    <b>3 CR</b>  Contact Hours: 3 + 0  Prerequisites: ACCT A601 with minimum grade of C and BA A603 with minimum grade of C and ECON A601 with minimum grade of C.  Level Restriction: Must be Graduate - UAA level.  Registration Restrictions: Admission to MBA program or permission of instructor.  Examines the correct use and interpretation of accounting data at the executive and board of directors level. Discusses company goals, human behaviors associated with accounting choices, and the difficulties of establishing financial controls that produce fair and informative audits. Explores misconduct, financial mismanagement, shenanigans and ethical dilemmas in financial reporting. Also examines value creation, forecasting and performance evaluations.</p>
<p><b>ACCT A401</b>                      <b>Advanced Accounting</b>    <b>3 CR</b>  Contact Hours: 3 + 0  Prerequisites: ACCT A302 with minimum grade of C.  Registration Restrictions: College of Business &amp; Public Policy majors must be admitted to upper-division standing.  The study of accounting for expanded business entities. Topics include: corporate purchase consolidations; partnership formation and dissolution; and foreign currency transactions, translations, and hedges.</p>	<p><b>ADT - Automotive &amp; Diesel Technology</b>  <i>Offered through the Community &amp; Technical College  Auto &amp; Diesel Technology Building (ADT), Room 207, 786-1485  <a href="http://www.uaa.alaska.edu/ctc/programs/transportation/index.cfm">www.uaa.alaska.edu/ctc/programs/transportation/index.cfm</a></i></p>
<p><b>ACCT A410</b>                      <b>Advanced Income Tax</b>    <b>3 CR</b>  Contact Hours: 3 + 0  Prerequisites: ACCT A302 with minimum grade of C and ACCT A310 with minimum grade of C.  Registration Restrictions: College of Business &amp; Public Policy majors must be admitted to upper-division standing.  Special Fees.  The study of the federal income tax law as it applies to partnerships and corporations. Emphasis is on research, theory, application, and tax planning.</p>	<p><b>ADT A071</b>                      <b>Fundamentals of Diesel Engines</b>    <b>2 CR</b>  Contact Hours: 2 + 0  Offered only at Kodiak College.  Survey of different types, uses, operating conditions, and maintenance of diesel engines.</p>
<p><b>ACCT A420</b>                      <b>Fraud Examination</b>    <b>3 CR</b>  Contact Hours: 3 + 0  Prerequisites: ACCT A301.  Registration Restrictions: College of Business and Public Policy majors must be admitted to upper-division standing.  Discusses nature of fraud and its impact on individuals and businesses. Examines fraud detection, investigation, and prevention techniques. Analyzes various types of fraud including employee embezzlement, management fraud, investment scams, vendor fraud, and customer fraud. Emphasizes the need for strong internal control systems, codes of ethics, and financial statement analysis techniques.</p>	<p><b>ADT A102</b>                      <b>Introduction to Automotive Technology</b>    <b>3 CR</b>  Contact Hours: 2 + 2  Special Fees.  Provides career information in the automotive and diesel industry. Covers shop safety, hand tools, fasteners, fittings, and the major automotive systems.</p>
<p><b>ACCT A430</b>                      <b>Governmental and Not-for-Profit Accounting</b>    <b>3 CR</b>  Contact Hours: 3 + 0  Prerequisites: ACCT A301 with minimum grade of C.  Registration Restrictions: College of Business &amp; Public Policy majors must be admitted to upper-division standing.  Accounting and financial reporting for governmental and not-for-profit entities, including state and local governments, the federal government, colleges and universities, and health care organizations. The fund structure provides a foundation for understanding these entities.</p>	<p><b>ADT A121</b>                      <b>Basic Electrical Systems</b>    <b>3 CR</b>  Contact Hours: 2 + 3  Special Fees.  Special Note: Students are expected to provide the basic hand tools needed to participate in lab activities. See faculty advisor for tool list.  Covers history and origins of electrical theory through the generation of electricity, diagnosis, minor repair, and general service of alternators, starters, and batteries.</p>
<p><b>ACCT A452</b>                      <b>Auditing</b>    <b>3 CR</b>  Contact Hours: 3 + 0  Prerequisites: ACCT A302 with minimum grade of C and ACCT A316 with minimum grade of C.  Registration Restrictions: College of Business &amp; Public Policy majors must be admitted to upper-division standing. Completion of all GER Tier 1 (basic college-level skills) courses.  Course Attributes: UAA GER Integrative Capstone.  Study of professional standards applicable to independent auditor's examination of financial statements and related expression(s) of opinion.</p>	<p><b>ADT A122</b>                      <b>Engine Theory and Diagnosis</b>    <b>3 CR</b>  Contact Hours: 2 + 2  Prerequisites: ADT 102.  Special Fees.  Introduces students to fundamental aspects of engine design, general diagnosis, and engine-related service. Includes combustion process, engine noise, basics of exhaust emissions, vacuum/pressure, compression, intake and exhaust systems, and valve and ignition timing.</p>
	<p><b>ADT A131</b>                      <b>Auto Electrical II</b>    <b>3 CR</b>  Contact Hours: 2 + 2  Prerequisites: ADT A121.  Special Fees.  Theory, diagnosis and repair of automotive electrical systems, to include testing tools, schematics, and computers.</p>

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<p><b>ADT A140 Automotive Engine Repair 3 CR</b>            Contact Hours: 2 + 2            Prerequisites: ADT A102.            Special Fees.            Introduces skills essential to diagnose, repair, overhaul, and recondition automotive internal combustion engines. Includes cylinder head, valve train, and engine block service.</p>	<p><b>ADT A202 Auto Fuel and Emissions Systems 4 CR</b>            Contact Hours: 3 + 2            Special Fees.            Presents combustion chemistry, volumetric efficiency, design and function of emission control devices, laws and regulations concerning vehicle emissions. Emphasis on interfacing with on-board computers, automotive computer networking, and 4- and 5-gas analysis.</p>
<p><b>ADT A150 Brake Systems 4 CR</b>            Contact Hours: 2 + 4            Prerequisites: (ADT A121 or concurrent enrollment).            Special Fees.            Theory, diagnosis, and repair of automotive brake systems.</p>	<p><b>ADT A222 Automotive Engine Performance 3 CR</b>            Contact Hours: 2 + 2            Prerequisites: ADT A122.            Special Fees.            Presents strategies for diagnosing fuel and ignition systems, manifold design, superchargers, automotive computers and multiplexing, communication strategies, on-board diagnostics, testing and diagnosis of engine performance related components.</p>
<p><b>ADT A151 Medium/Heavy Duty Engine Repair 3 CR</b>            Contact Hours: 3 + 0            Corequisite: ADT A153.            Introduces theory of design, operation, diagnosis, disassembly, repair, and service procedures of engines used on medium and heavy equipment.</p>	<p><b>ADT A225 Auto Heating and A/C 3 CR</b>            Contact Hours: 2 + 2            Prerequisites: ADT A131.            Special Fees.            Theory, diagnosis and repair of automotive heating and air conditioning systems.</p>
<p><b>ADT A152 Heavy Duty Suspension and Steering 4 CR</b>            Contact Hours: 2 + 4            Special Fees.            Special Note: Students are expected to provide the basic hand tools needed to participate in lab activities. See faculty advisor for tool list.            Introduces the design, operation, diagnosis, disassembly, repair, and service procedures to the suspension and steering systems on medium and heavy duty equipment.</p>	<p><b>ADT A227 Auto Electrical III 3 CR</b>            Contact Hours: 2 + 2            Prerequisites: ADT A131.            Special Fees.            Special Note: Specialty tools required.            Theory, diagnosis and repair of automotive electrical and electronic systems, to include accessories.</p>
<p><b>ADT A153 Medium/Heavy Engine Lab 3 CR</b>            Contact Hours: 0 + 9            Corequisite: ADT A151.            Special Fees.            Special Note: Students are expected to provide the basic hand tools needed to participate in lab activities. See faculty advisor for tool list.            Applies principles of design, operation, diagnosis, disassembly, hands-on repair and service procedures on medium/heavy duty engines.</p>	<p><b>ADT A260 Electronic and Automatic Transmissions 3 CR</b>            Contact Hours: 2 + 2            Prerequisites: ADT 131.            Special Fees.            Applies theory, diagnosis, and repair of modern automatic transmissions, including application devices, friction materials, seals, gaskets, electronic controls, adaptive strategies, and valve bodies.</p>
<p><b>ADT A155 Heavy Duty Brake Systems 4 CR</b>            Contact Hours: 2 + 4            Special Fees.            Special Note: Students are expected to provide the basic hand tools needed to participate in lab activities. See faculty advisor for tool list.            Introduces theory, operation, diagnosis, repair, and service procedure of brake systems on medium and heavy duty equipment.</p>	<p><b>ADT A266 Heavy Duty Power Systems Lab 4 CR</b>            Contact Hours: 0 + 12            Prerequisites: ADT A156.            Special Fees.            Special Note: Students are expected to provide the basic hand tools needed to participate in lab activities. See faculty advisor for tool list.            Covers design, operation, repair, service procedures and testing of hydraulics, pneumatics, drive train, buckets, blades, undercarriages, and diesel engines used in medium and heavy duty applications.</p>
<p><b>ADT A156 Heavy Duty Maintenance Inspection 6 CR</b>            Contact Hours: 2 + 8            Prerequisites: ASSET Numerical Skills with score of 43 and ASSET Reading Skills with score of 43 and ASSET Writing Skills with score of 47.            Registration Restrictions: Student must be eligible to enroll in English A111 and Math A055.            Special Fees.            Special Note: Students are expected to provide the basic hand tools needed to participate in lab activities. See faculty advisor for tool list.            Introduces regulations and maintenance procedures on medium and heavy duty equipment. Includes hands on maintenance, applications of maintenance scheduling, safety procedures and Department of Transportation compliance, verification, and documentation.</p>	<p><b>ADT A267 Heavy Duty Fuel Systems 4 CR</b>            Contact Hours: 2 + 4            Prerequisites: ADT A156.            Special Fees.            Special Note: Students are expected to provide the basic hand tools needed to participate in lab activities. See faculty advisor for tool list.            Covers design, operation, diagnosis, repair, and service procedures of fuel systems on engines used in the medium and heavy duty diesel industry.</p>
<p><b>ADT A160 Manual Drive Trains and Axles 4 CR</b>            Contact Hours: 2 + 4            Prerequisites: ADT A102.            Special Fees.            Introduces theory, diagnosis, and repair of manual drive train components and drive axles. Content includes clutches, manual transmissions and transaxles, 4-wheel drive components, and drive axles.</p>	<p><b>ADT A268 Hydraulics and Pneumatics 4 CR</b>            Contact Hours: 2 + 4            Prerequisites: ADT A156.            Special Fees.            Special Note: Students are expected to provide the basic hand tools needed to participate in lab activities. See faculty advisor for tool list.            Presents design, operation, diagnosis, disassembly, repair, and service procedures of hydraulic and pneumatic systems on mid to heavy duty equipment.</p>
<p><b>ADT A162 Suspension and Alignment 4 CR</b>            Contact Hours: 2 + 4            Prerequisites: ADT A121.            Special Fees.            Modern automotive suspension, alignment, and steering theory, inspection, service, and adjustments including four wheel alignment.</p>	<p><b>ADT A269 Heavy Duty Drive Trains 4 CR</b>            Contact Hours: 2 + 4            Prerequisites: ADT A156.            Special Fees.            Special Note: Students are expected to provide the basic hand tools needed to participate in lab activities. See faculty advisor for tool list.            Presents design, operation, diagnosis, disassembly, repair, and service procedures of transmissions and drive trains on medium and heavy duty equipment.</p>
<p><b>ADT A195 Automotive Practicum I 1-6 CR</b>            Contact Hours: 0 + 5-30            Registration Restrictions: At least 12 credits of advisor approved ADT program technical courses and a valid Alaska driver's license.            Special Note: Although students may enroll in a maximum of 18 credits of Practicum I, only 6 credits apply to the Certificate in Automotive Technology, Non-Transcripted Departmental Certificate of Completion in Automotive Electrical; Automotive Brakes; Suspension and Alignment; and Automotive Power Trains; and the AAS degree in Automotive Technology.            Provides supervised workplace experience in selected industry settings. Integrates knowledge and practice to achieve basic-level skill competencies.</p>	<p><b>ADT A295 Automotive Practicum II 3 CR</b>            Contact Hours: 0 + 17            Prerequisites: ADT A195.            Registration Restrictions: Department approval and valid Alaska driver's license.            Provides supervised workplace experience in industry settings. Integrates advanced level knowledge and practice to achieve skill competencies.</p>

## AEST - Applied Environmental Science & Technology

*Offered through the School of Engineering*

*Engineering Building (ENGR), Room 201, 786-1900*

*www.engr.uaa.alaska.edu/programs/environmental*

### AEST A601 Aquatic Process Chemistry 3 CR

Contact Hours: 3 + 0

Registration Restrictions: Registrants must be enrolled in the AEST, CE, or BIOL graduate programs, or gain instructor approval.

Special Fees.

An introduction to fundamental aquatic chemistry concepts frequently encountered in environmental science and engineering. An equilibrium approach with an emphasis on treatment process and natural water chemistry is employed. Both a qualitative and quantitative understanding of equilibrium calculations and the ability to apply both graphical and algebraic/numerical solution techniques to chemistry problems.

### AEST A602 Water Quality Management 3 CR

Contact Hours: 3 + 0

Registration Restrictions: Registrants must be enrolled in the AEST, CE, or BIOL graduate programs, or gain instructor approval.

Special Fees.

An assessment of the rationale, concepts, institutions, and engineering aspects of water quality management. Regulatory processes, monitoring strategies and statistics, flow and mixing characteristics, pollutant chemistry, assessment strategies, point and nonpoint source characteristics, the Total Maximum Daily Load (TMDL) process, and mitigation measures are covered.

### AEST A603 Solid Waste Management 3 CR

Contact Hours: 3 + 0

Registration Restrictions: Registrants must be enrolled in the AEST, CE, or BIOL graduate programs, or gain instructor approval.

Planning, collecting and disposing of solid waste; techniques of collection, transportation, disposal and resource recovery; solid waste environmental regulations and relationships to water, air, and land pollution; hazardous waste management.

### AEST A604 Environmental Law, Regulations and Permitting 3 CR

Contact Hours: 3 + 0

Registration Restrictions: Bachelor of Science degree in a science or engineering discipline.

Introductory graduate level course on understanding and navigating environmental laws and regulations. Students will learn the principles of the major environmental laws in the U.S., practice interpreting regulations, and prepare permits.

### AEST A605 National Environmental Policy Act 3 CR

Contact Hours: 3 + 0

Registration Restrictions: Bachelor of Science degree in a science or engineering discipline.

Special Fees.

Examines the National Environmental Policy Act (NEPA) requirements, including process, roles and responsibilities of involved parties, impact analysis, alternative development, stakeholder involvement and environmental conflict resolution. Subject matter experts from State and Federal agencies, industry, environmental nongovernmental organizations and utilities will provide their perspectives on NEPA.

### AEST A606 Clean Water Act 3 CR

Contact Hours: 3 + 0

Registration Restrictions: Bachelor of Science degree in a science or engineering discipline.

Examines the Clean Water Act and its impact on the environment. The course will explore the history of the Act, and various programs established by the Act, including the Section 404 wetlands program and the National Pollutant Discharge Elimination System (NPDES) pollution control program. Subject matter experts from State and Federal agencies, industry, environmental nongovernmental organizations and utilities will provide their perspectives on the Clean Water Act and its effectiveness.

### AEST A607 Environmental Permitting Project 3 CR

Contact Hours: 3 + 0

Prerequisites: AEST A604 with minimum grade of B and AEST A605 with minimum grade of B and AEST A606 with minimum grade of B.

Registration Restrictions: Admission to Applied Environmental Science and Technology graduate program.

Explores the complex relationship between environmental regulatory and permitting requirements and their application to engineering and science projects.

### AEST A608 Fundamentals of Air Pollution 3 CR

Contact Hours: 3 + 0

Registration Restrictions: Registrants must be enrolled in the AEST, CE, or BIOL graduate programs, or gain instructor approval.

Special Fees.

Air pollution terminology and their definitions. Sources and effects of air pollution. Meteorology and its relationship to air pollution. Pollution modeling and prediction. Combustion generated air pollution. Energy and air pollution. Regulations at the federal, state, and local levels. Indoor air quality.

### AEST A613 Remediation 3 CR

Contact Hours: 3 + 0

Registration Restrictions: Registrants must be enrolled in the AEST, CE, or BIOL graduate programs, or gain instructor approval.

Special Fees.

Fundamentals and applications of technologies for the remediation of contaminated sites. Site characterization techniques and fundamental microbial, chemical, and physical concepts are presented to provide a basis for the design and operation of specific on-site and in-situ technologies.

### AEST A698 Individual Research 1-6 CR

Contact Hours: 1-6 + 0

Registration Restrictions: Registrants must be enrolled in the AEST, CE, or BIOL graduate programs, or gain instructor approval.

A course to be designed between the student and faculty member to allow the student the chance to pursue special advanced interests in engineering at the graduate level.

### AEST A699 AEST Thesis 1-6 CR

Contact Hours: 1-6 + 0

Registration Restrictions: Registrants must be enrolled in the AEST graduate program.

Arranged between the advisor and the student. Generally the student has been admitted to candidacy for the master's degree and a thesis committee is formed. The student must take an oral exam defending the thesis.

## AET - Architectural & Engineering Technology

*Offered through the Community & Technical College*

*University Center (UC), Room 130, 786-6465*

*www.uaa.alaska.edu/ctc/construction/aet*

### AET A100 Fundamentals of Drafting 3 CR

Contact Hours: 1 + 2

Offered only at Matanuska-Susitna College.

Special Fees.

Special Note: For non-majors only.

Basic course in college drafting, designed to provide students with the fundamental skills and knowledge necessary to communicate using language of industry.

### AET A101 Fundamentals of CADD for Building Construction 4 CR

Contact Hours: 2 + 4

Prerequisites: (MATH A105 with minimum grade of C or concurrent enrollment).

Registration Restrictions: Proof of eligibility for placement into ENGL A111.

Appropriate SAT, ACT or UAA-approved Math Placement Test scores may be used in lieu of MATH A105.

Crosslisted with: CM A101.

Special Fees.

Introduces basic CADD (computer aided drafting and design) skills necessary in civil, architectural, structural, mechanical, and electrical drafting within the construction industry. Defines the working relationship between design and construction professionals and drafters/technicians.

### AET A102 Methods of Building Construction 3 CR

Contact Hours: 3 + 0

Registration Restrictions: Proof of eligibility for placement into MATH A105 and ENGL A111.

Crosslisted with: CM A102.

Special Fees.

Introduces basic knowledge of building materials, technical specifications, techniques, and systems. Outlines structural systems, construction processes, and assemblies. Includes a field project involving student team research of current Alaskan building type.

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<p><b>AET A111</b>                      <b>Civil Drafting</b>                      <b>3 CR</b>            Contact Hours: 2 + 3            Prerequisites: AET A102 and AET A181.            Special Fees.            Introduces technical skills needed by drafters and technicians to work with civil engineers and surveyors. Includes office practices, staff relationships, and civil drawing production. Develops computer-aided drafting skills for mapping used in site development.</p>	<p><b>AET A213</b>                      <b>Civil Technology</b>                      <b>4 CR</b>            Contact Hours: 2 + 4            Prerequisites: [AET A101 with minimum grade of C or CM A101 with minimum grade of C] and [AET A102 with minimum grade of C or CM A102 with minimum grade of C] and MATH A105 with minimum grade of C.            Registration Restrictions: Appropriate SAT, ACT or UAA-approved Math Placement Test scores may be used in lieu of the MATH A105 prerequisite.            Special Fees.            Outlines elements of civil design, including soils and soil mechanics, foundations, roads, and utilities using local, state and federal regulations. Introduces elements of construction surveying.</p>
<p><b>AET A121</b>                      <b>Architectural Drafting</b>                      <b>3 CR</b>            Contact Hours: 2 + 3            Prerequisites: AET A102 and AET A181.            Special Fees.            Introduces technical skills needed by architectural drafters and technicians to work with architects. Includes office practices, staff relationships, and architectural drawing production. Develops computer-aided drafting skills in architectural drawing symbols, conventions, dimensioning systems, reference systems, sheet organization, code requirements, and research methods for detailing light commercial buildings.</p>	<p><b>AET A231</b>                      <b>Structural Technology</b>                      <b>4 CR</b>            Contact Hours: 2 + 4            Prerequisites: [AET A101 with minimum grade of C or CM A101 with minimum grade of C] and [AET A102 with minimum grade of C or CM A102 with minimum grade of C] and MATH A105 with minimum grade of C.            Registration Restrictions: Appropriate SAT, ACT or UAA-approved Math Placement Test scores may be used in lieu of the MATH A105 prerequisite.            Crosslisted with: CM A231.            Special Fees.            Examines structural theory and the physical principles that underlie structural behavior. Includes the use of materials in a manner to maintain structural stability against natural forces such as gravity, wind, snow and earthquakes. Covers connection details and code requirements for wood, steel and reinforced concrete.</p>
<p><b>AET A123</b>                      <b>Codes and Standards</b>                      <b>3 CR</b>            Contact Hours: 3 + 0            Prerequisites: AET A101 and AET A102.            Crosslisted with: CM A123.            Special Fees.            Provides an introduction and overview of the fundamental provisions of the building codes used for plan review, life-safety evaluation of the buildings, and community development.</p>	<p><b>AET A282</b>                      <b>Advanced CADD Techniques</b>                      <b>4 CR</b>            Contact Hours: 2 + 4            Prerequisites: AET A181.            Special Fees.            Continues skill development in CADD (computer-aided design and drafting) at an advanced level for the production of architectural, civil, structural, mechanical, and electrical drawings used in construction. Includes 3-D space, shading, rendering, and animation techniques.</p>
<p><b>AET A131</b>                      <b>Structural Drafting</b>                      <b>3 CR</b>            Contact Hours: 2 + 3            Prerequisites: AET A102 and AET A181.            Special Fees.            Introduces technical skills needed by structural drafters and technicians to work with structural engineers. Includes office practices, staff relationships, and structural drawing production. Develops computer-aided drafting skills in symbols, conventions, dimensioning systems, sheet organizations, code analysis and research methods for steel, wood, and reinforced concrete buildings.</p>	<p><b>AET A283</b>                      <b>CADD Software Customization</b>                      <b>3 CR</b>            Contact Hours: 2 + 3            Prerequisites: AET A181.            Special Fees.            Presents the skills and knowledge necessary to modify and customize the CADD user interface, create customized CADD features for diverse domains, and manage CADD standards and projects in professional environments.</p>
<p><b>AET A142</b>                      <b>Mechanical and Electrical Technology</b>                      <b>4 CR</b>            Contact Hours: 3 + 2            Prerequisites: [AET A101 with minimum grade of C or CM A101 with minimum grade of C] and [AET A102 with minimum grade of C or CM A102 with minimum grade of C] and MATH A105 with minimum grade of C.            Registration Restrictions: Appropriate SAT, ACT or UAA-approved Math Placement Test scores may be used in lieu of the MATH A105 prerequisite.            Crosslisted with: CM A142.            Special Fees.            Introduces the basic mechanical and electrical systems required in all buildings for the safety, health, comfort and convenience of the occupants. Emphasizes design criteria, code requirements, interpretation of construction drawings and building energy usage.</p>	<p><b>AET A286</b>                      <b>Design Project</b>                      <b>4 CR</b>            Contact Hours: 2 + 4            Prerequisites: AET A181 and [AET A111 or AET A121 or AET A131 or AET A143].            Special Fees.            Provides a culminating problem-solving situation for students from the various certificate programs. The problem will be taken from community-generated enterprise and solved in a project-based learning environment.</p>
<p><b>AET A143</b>                      <b>Mechanical and Electrical Drafting</b>                      <b>3 CR</b>            Contact Hours: 2 + 3            Prerequisites: AET A102 and AET A181.            Special Fees.            Introduces technical analysis, theory, code requirements, CADD techniques, and construction drawing methodology to produce construction drawings for mechanical and electrical building systems. Includes drafting conventions, drawing symbols, terminology, and research methods for residential and commercial building mechanical and electrical systems and equipment.</p>	<p><b>AET A290</b>                      <b>Architectural and Engineering Technology Selected Topics</b>                      <b>1-6 CR</b>            Contact Hours: 0-6 + 0-12            Registration Restrictions: Department Permission required.            Grade Mode: Pass/No Pass.            Special Note: May be repeated for credit under different topic.            Provides theoretical and/or experiential learning in selected areas of Architectural and Engineering Technology. Provides technical information on current industry trends.</p>
<p><b>AET A171</b>                      <b>Building Your Own Home</b>                      <b>3 CR</b>            Contact Hours: 1 + 1            Registration Restrictions: Basic high school English and math skills recommended.            Special Fees.            Special Note: Does not meet AET certificate or degree requirements.            Introduces practical techniques and methods for planning, designing, constructing and remodeling owner-built single-family houses.</p>	<p><b>AET A295</b>                      <b>Architectural and Engineering Technology Internship</b>                      <b>1-3 CR</b>            Contact Hours: 0 + 5-15            Registration Restrictions: Sophomore standing and faculty permission.            Grade Mode: Pass/No Pass.            Special Fees.            Places students in generalized and specialized architectural, engineering or building construction offices related to student educational program and occupational objectives. Direct supervision by architect, engineer, or contractor professional, program faculty, and Cooperative Education Director.</p>
<p><b>AET A181</b>                      <b>Intermediate CADD for Building Construction</b>                      <b>4 CR</b>            Contact Hours: 2 + 4            Prerequisites: AET A101 or CM A101.            Special Fees.            Develops intermediate level CADD (computer-aided design and drafting) skills for architectural, civil, structural, mechanical and electrical drawings used in building construction. Includes 3-D space coordinate systems, surface modeling, and solid modeling.</p>	<p><b>AET A490</b>                      <b>Architectural and Engineering Technology Selected Topics</b>                      <b>1-6 CR</b>            Contact Hours: 0-6 + 0-12            Registration Restrictions: Department approval required.            Grade Mode: Pass/No Pass.            Special Fees.            Special Note: May be repeated for credit under different topic.            Provides advanced theoretical and/or experiential learning in selected areas of Architectural and Engineering Technology. Provides technical information on current industry trends.</p>

## AGRI - Agriculture

*Offered through Community & Technical College*

*Chugiak-Eagle River Campus, 694-3313*

*www.uaa.alaska.edu/ctc/eagleriver*

### AGRI A115 Basic Horse Behavior and Training I 3 CR

Contact Hours: 3 + 0

Offered only at Matanuska-Susitna College.

Introduces principles necessary for understanding horse behavior and physical development of the riding horse. Presents principles and procedures of communication, and horse training from halter training to mounted work. Includes actual handling and training of horses.

### AGRI A136 Introduction to Horticulture 3 CR

Contact Hours: 3 + 0

Offered only at Matanuska-Susitna College.

Reviews plant structure and growth; soils; plant nutrition; plant propagation; potting media; fertilizers; indoor plant care; light management; container gardening; interior landscaping; greenhouse growing and plant forcing.

### AGRI A138 Organic Gardening 1-3 CR

Contact Hours: 1-3 + 0

Grade Mode: Pass/No Pass.

Introduces organic methods and materials for ecological agriculture covering soil management, crop rotations, weed control, pest management, garden planning, planting, harvesting, storage, French intensive methods, and compost.

### AGRI A139 Modern Home Gardening 3 CR

Contact Hours: 3 + 0

Principles of gardening--comprehensive coverage of plants, soils and climates, the basic elements with which the gardener must deal. Practices of gardening--the manipulation of the basic elements; growing of important vegetables, herbs, perennial food plants and flowers.

### AGRI A141 Home Greenhouse Gardening 1 CR

Contact Hours: 1 + 0

Grade Mode: Pass/No Pass.

Introduction to home greenhouse design and operation. Covers construction design and size, plant growth environment, pest prevention and control, water, soil and nutrient requirements, and managing greenhouse crops.

### AGRI A227 Landscape Design: A Home Owner's Approach 1 CR

Contact Hours: 1 + 0

Registration Restrictions: AGRI A136 or AGRI A139 recommended.

Grade Mode: Pass/No Pass.

Designed for the beginning home landscaper. Covers the first phases of landscape design including site inventory, site analysis, conceptual design, and preliminary design. Construction phasing, final design components, and additional resources will be discussed briefly.

### AGRI A240 Greenhouse Operation and Management 3 CR

Contact Hours: 3 + 0

Offered only at Matanuska-Susitna College.

Covers principles of management and operation of both home and commercial greenhouses. Includes greenhouse construction, heating, cooling, root media, root media pasteurization, watering, fertilization, carbon dioxide fertilization, light and temperature management, chemical growth regulation, insect and disease control, and the management of several selected crops.

### AGRI A245 Master Gardener 3 CR

Contact Hours: 3 + 0

Offered only at Kenai Peninsula College.

Course will teach volunteers (master gardeners) to extend the gardening information and resources of cooperative extension service to area gardeners.

## AIRS - Aerospace Science

*Offered through the Community and Technical College,*

*Aviation Complex (AVNC), 2811 Merrill Field Drive, Room 116, 786-7266*

*www.uaa.alaska.edu/ctc/programs/afrotc*

### AIRS A101 Foundations of the United States Air Force I 1 CR

Contact Hours: 1 + 0

Corequisite: AIRS A150.

Introduces basic military concepts. Covers key events in US Air Force history, military customs and courtesies, ethics, and communication skills.

### AIRS A102 Foundations of the United States Air Force II 1 CR

Contact Hours: 1 + 0

Corequisite: AIRS A150.

Describes the organization structure of Air Force major commands and operational wings. Covers facilities and services available at Air Force installations. Introduces Air Force writing formats.

### AIRS A150 US Air Force Leadership Laboratory 1 CR

Contact Hours: 0 + 4

Registration Restrictions: Students must be enrolled in AFROTC academic classes unless they have completed all ROTC academic courses for program completion. Corequisites are AIRS A101 or AIRS A102 or AIRS A201 or AIRS A202 or AIRS A301 or AIRS A302 or AIRS A401 or AIRS A402.

Grade Mode: Pass/No Pass.

Special Note: This is a required course for Air Force ROTC students seeking an officer's commission. Students must be eligible for military service to take this course.

Provides practical leadership experience and military training to Air Force ROTC cadets. Includes field trips to different Air Force Bases, and requires weekly physical fitness training, marching, and leadership exercises.

### AIRS A201 Evolution of Air and Space Power I 2 CR

Contact Hours: 2 + 0

Corequisite: AIRS A150.

Examines the evolution of air and space combat technology, doctrine, historical context and practice from the first use of dirigibles to the development of Intercontinental Ballistic Missiles and long-range bombers in the early 1960s.

### AIRS A202 Evolution of Air and Space Power II 2 CR

Contact Hours: 2 + 0

Corequisite: AIRS A150.

Builds upon previous (AIRS A201) coursework and examines the evolution of air and space combat technology, doctrine, and practice from the early 1960s to the present.

### AIRS A301 US Air Force Leadership and Management I 3 CR

Contact Hours: 3 + 0

Registration Restrictions: Departmental approval

Corequisite: AIRS A150.

Special Note: This is a mandatory course for students seeking an Air Force officer commission.

Analyzes leadership, management fundamentals, professional knowledge, Air Force personnel and evaluation systems, leadership ethics, and communication skills required of an Air Force junior officer.

### AIRS A302 US Air Force Leadership and Management II 3 CR

Contact Hours: 3 + 0

Prerequisites: AIRS A301.

Registration Restrictions: Departmental approval

Corequisite: AIRS A150.

Special Note: This is a mandatory course for students seeking an Air Force officer commission.

Examines concepts of military professionalism and officership. Analyzes the application of military ethics to various combat and non-combat scenarios. Covers officer evaluation, promotion and assignment systems.

### AIRS A401 National Security Affairs I 3 CR

Contact Hours: 3 + 0

Prerequisites: AIRS A302.

Registration Restrictions: Departmental approval

Corequisite: AIRS A150.

Special Note: This is a mandatory course for students seeking an Air Force officer commission.

Analyzes the relationship of the military to society and the role of the Executive and Congressional branches in military affairs. Examines the capabilities of the US Air Force, Navy and Army. Outlines US national security goals, commitments, and issues in Europe and East Asia.

### AIRS A402 National Security Affairs II/Prep for Active Duty 3 CR

Contact Hours: 3 + 0

Prerequisites: AIRS A401.

Registration Restrictions: Departmental approval

Corequisite: AIRS A150.

Special Note: This is a mandatory course for students seeking an Air Force officer commission.

Outlines US national security goals, commitments, and issues in the Middle East, Latin America and the former Soviet Union. Analyzes non-traditional military operations and covers various personnel, legal and leadership topics.

## AKNS - Alaska Native Studies

*Offered through the College of Arts and Sciences*

*Social Sciences Building (SSB), Room 378, 786-6135*

[www.uaa.alaska.edu/native](http://www.uaa.alaska.edu/native)

### AKNS A101A Elementary Central Yup'ik Language I 4 CR

Contact Hours: 4 + 0

Course Attributes: UAA GER Humanities Requirement.

Special Fees.

Introductory course for students with little, or no, prior knowledge of the Central Yup'ik language. Develops listening, speaking, reading, and writing skills in Central Yup'ik for effective communication at the elementary level. Addresses history of Alaska Native languages and culture.

### AKNS A101B Elementary Tlingit Language I 4 CR

Contact Hours: 4 + 0

Course Attributes: UAA GER Humanities Requirement.

Special Fees.

Introductory course for students with little, or no, prior knowledge of the Tlingit language. Develops listening, speaking, reading, and writing skills in Tlingit for effective communication at the elementary level. Addresses history of Alaska Native languages and cultures.

### AKNS A101C Elementary Alaska Native Language I 4 CR

Contact Hours: 4 + 0

Course Attributes: UAA GER Humanities Requirement.

Special Fees.

Special Note: May be repeated one time with a different language.

Introductory course for students with little, or no, prior knowledge of the offered Alaska Native language. Develops listening, speaking, reading, and writing skills in the Alaska Native language for effective communication at the elementary level. Addresses history of Alaska Native languages and cultures.

### AKNS A102A Elementary Central Yup'ik Language II 4 CR

Contact Hours: 4 + 0

Prerequisites: AKNS A101A.

May be May be stacked with: AKNS A109A.

Course Attributes: UAA GER Humanities Requirement.

Special Fees.

Continuation of introductory course. Further develops elementary listening, speaking, reading, and writing skills in Central Yup'ik for effective communication. Enhances appreciation of Alaska Native and cross-cultural perspectives.

### AKNS A102B Elementary Tlingit Language II 4 CR

Contact Hours: 4 + 0

Prerequisites: AKNS A101B.

May be May be stacked with: AKNS A109B.

Course Attributes: UAA GER Humanities Requirement.

Special Fees.

Continuation of introductory course. Further develops elementary listening, speaking, reading, and writing skills in Tlingit for effective communication. Enhances appreciation of Alaska Native and cross-cultural perspectives.

### AKNS A102C Elementary Alaska Native Language II 4 CR

Contact Hours: 4 + 0

Prerequisites: AKNS A101C.

Registration Restrictions: Same language as taken in AKNS A101C

May be May be stacked with: AKNS A109C.

Course Attributes: UAA GER Humanities Requirement.

Special Fees.

Special Note: May be repeated on time with a different language.

Continuation of introductory course. Further develops elementary listening, speaking, reading, and writing skills in a selected Alaska Native language for effective communication. Enhances appreciation of Alaska Native and cross-cultural perspectives.

### AKNS A109A Central Yup'ik Orthography 4 CR

Contact Hours: 4 + 0

Registration Restrictions: Fluency in Central Yup'ik and instructor approval required.

May be May be stacked with: AKNS A102A.

Special Fees.

Introduction to reading and writing Central Yup'ik for students with oral proficiency in the Central Yup'ik language. Students will be introduced to alphabet and phonetic classification, dialects, and a history of the Central Yup'ik writing system. Enhances cross-cultural perspectives.

### AKNS A109B Tlingit Orthography 4 CR

Contact Hours: 4 + 0

Registration Restrictions: Fluency in Tlingit and instructor approval required.

May be stacked with: AKNS A102B.

Special Fees.

Introduction to reading and writing Tlingit for students with oral proficiency in the Tlingit language. Students will be introduced to alphabet and phonetic classification, dialects, and a history of the Tlingit writing system. Enhances cross-cultural perspectives.

### AKNS A109C Alaska Native Language Orthography 4 CR

Contact Hours: 4 + 0

Registration Restrictions: Fluency in Alaska Native language and instructor approval required. Must be same language as AKNS A101C.

May be stacked with: AKNS A102C.

Special Fees.

Introduction to reading and writing an Alaska Native language for students with oral proficiency in the Alaska Native language. Students will be introduced to alphabet and phonetic classification, dialects, and a history of the selected Alaska Native language writing system. Enhances cross-cultural perspectives.

### AKNS A146 Introduction to Alaska Native Dance 1-2 CR

Contact Hours: 0.5+1 or 1+2

Crosslisted with: DNCE A146.

Special Fees.

Special Note: May be repeated for up to 8 credits.

Beginning course in Alaska Native dance techniques involving movement, sounds/vocal, music, and storytelling. Historical, cultural, and aesthetic context of dances stressed throughout class.

### AKNS A201 Alaska Native Perspectives 3 CR

Contact Hours: 3 + 0

Course Attributes: UAA GER Humanities Requirement.

Special Fees.

Introduction to Alaska Native perspectives on kinship, time, philosophy, symbolism, spirituality, communication, justice, oral traditions, storytelling, material culture, and the relationship to the environment. Students will become familiar with the diversity of Alaska Native peoples, languages, and worldviews and how these influence contemporary and global issues.

### AKNS A215 Music of Alaska Natives and Indigenous Peoples of Northern Regions 3 CR

Contact Hours: 3 + 0

Prerequisites: ENGL A111.

Crosslisted with: MUS A215.

Course Attributes: UAA GER Fine Arts Requirement.

Special Fees.

Special Note: AKNS A201 or MUS A111 recommended.

Explores the music of Alaska Natives and Indigenous Peoples of Northern regions by group, including influences from Euro-American music.

### AKNS A290 Selected Topics in Alaska Native Studies 1-3 CR

Contact Hours: 1-3 + 0

Special Fees.

Special Note: Subtitle varies. May be repeated for credit with a different subtitle.

A topic of contemporary or continuing interest in Alaska Native Studies, treated at an introductory level. Prominent leaders in the Native community are brought into direct classroom contact with students to discuss important issues in rural Alaska and the larger Native community.

### AKNS A346 Alaska Native Politics 3 CR

Contact Hours: 3 + 0

Class Standing Restriction: Must be Junior or Senior.

Registration Restrictions: Upper-division standing.

Crosslisted with: PS A346.

Special Note: May be used to fulfill the Alaska studies requirement for teacher certification.

Introduction to historical relationships among federal, territorial, state and local laws and policies as they affect Alaska Natives and Native/non-Native relations. Includes contemporary issues and comparative case studies.

### AKNS A411 Tribes, Nations, and Peoples 3 CR

Contact Hours: 3 + 0

Prerequisites: AKNS A201 or PS A102.

Crosslisted with: PS A411.

Analyzes and evaluates the history of expansion, invasion, contemporary questions, and issues that confront Indigenous tribes, nations, and peoples, including their political, social, economic, and cultural activities. Investigates corresponding relations with non-Indigenous governments and private entities as well as international developments concerning Indigenous human rights.



<b>AKNS A420</b>	<b>Alaska Native Education</b>	<b>3 CR</b>
Contact Hours: 3 + 0		
Registration Restrictions: Upper-division standing.		
Examination of educational policies as they relate to Native Americans with an emphasis on these policies' historical implementation in Alaska and the contemporary issues which have arisen as a result of those efforts.		
<b>AKNS A490</b>	<b>Selected Topics in Alaska Native Studies</b>	<b>1-3 CR</b>
Contact Hours: 1-3 + 0		
Registration Restrictions: Upper-division standing.		
Special Note: Subtitle varies, may be repeated for credit with a different subtitle.		
A topic of contemporary or continuing interest in Alaska Native Studies, treated at an upper level. Tradition and change in Native social institutions in contemporary society. Methods of identifying and analyzing significant Native social change processes for public understanding.		
<b>AKNS A492</b>	<b>Seminar: Cultural Knowledge of Native Elders</b>	<b>3 CR</b>
Contact Hours: 3 + 0		
Registration Restrictions: AKNS A201 or upper-division standing.		
Special Fees.		
Special Note: Students enrolling in this course should have either upper division class standing with a strong background in the social sciences or appropriate life experience, or a combination of the two prior to enrolling for this course.		
Provides students exposure to and interaction with prominent Alaska Native tradition bearers in order to ascertain knowledge of the traditional values, culture, and world views which comprise the heritage of Alaska Native people. Students will gather information on traditional values, governance, and leadership by eliciting accounts of the elders' experiences, and by comparing Native and "Western" culture, understand the significance of cultural differences in world view, heritage, and communication.		
<b>AKNS A495</b>	<b>Alaska Native Studies Internship</b>	<b>1-3 CR</b>
Contact Hours: 1-3 + 0		
Registration Restrictions: Instructor permission, upper division standing, and knowledge of Alaska Native issues required.		
Special Note: Placement varies, may be repeated for credit with a different placement for up to six credits for the Alaska Native Studies Minor.		
An opportunity for students to apply the subject matter of Alaska Native Studies to the practical life of their community. Internships are available in a variety of governmental, non-profit and profit settings, and require a formal agreement between the student, the faculty member and the supervisor; a work evaluation; and a student report.		

## AMT - Aviation Maintenance Technology

*Offered through the Community & Technical College  
Aviation Complex (AVNC), 2811 Merrill Field Drive, 786-7200  
[www.uaa.alaska.edu/aviation](http://www.uaa.alaska.edu/aviation)*

<b>AMT A170</b>	<b>Aircraft Ground Operations and Safety</b>	<b>1 CR</b>
Contact Hours: 1 + .2		
Registration Restrictions: Formal acceptance into the AMT certificate or degree program.		
Special Fees.		
Examines safety in aviation maintenance including aircraft ground operation and fuel servicing. Presents policies and procedures of the Aviation Maintenance Technology Program, UAA and the FAA.		
<b>AMT A171</b>	<b>Basic Aerodynamics</b>	<b>3 CR</b>
Contact Hours: 3 + 0		
Registration Restrictions: Formal acceptance into the AMT certificate or degree program.		
Introduces the theory of aerodynamics and factors affecting flight of heavier than air fixed and rotary wing aircraft. Emphasizes aircraft weight and balance, aircraft structures, aerodynamics, theory of flight and aircraft rigging.		
<b>AMT A172</b>	<b>Aircraft Publications, Regulations, and Records</b>	<b>3 CR</b>
Contact Hours: 3 + 0		
Registration Restrictions: Formal acceptance into the AMT certificate or degree program.		
Examines the government's involvement in aviation maintenance, and FAA regulations regarding aviation maintenance and approved training programs. Emphasizes the use of maintenance publications, maintenance forms and records, and technicians' privileges and limitations.		

<b>AMT A174</b>	<b>Fundamentals of Aircraft Electronics</b>	<b>3 CR</b>
Contact Hours: 3 + 0		
Prerequisites: MATH A055.		
Corequisite: AMT A174L.		
Examines the theory, derivation, and application of basic DC and AC electrical concepts, definitions, and laws. Introduces passive electrical components, electrical sources, AC waveforms, schematic symbols, and electrical wiring diagrams. Explains troubleshooting fundamentals and circuit analysis of both passive and reactive components.		
<b>AMT A174L</b>	<b>Fundamentals of Aircraft Electronics Lab</b>	<b>2 CR</b>
Contact Hours: 0 + 5		
Prerequisites: MATH A055 and (AMT A170 or concurrent enrollment).		
Corequisite: AMT A174.		
Special Fees.		
Introduces the methods of safe and accurate measurement of DC and AC electrical quantities using basic electrical test equipment. Connecting, testing, and operating a variety of DC and AC circuit components, troubleshooting defective components, observing the characteristics of electrical components in test circuits, and wiring circuits from schematic diagrams.		
<b>AMT A175</b>	<b>Drawing and Precision Measurement</b>	<b>2 CR</b>
Contact Hours: 2 + 0		
Registration Restrictions: Formal acceptance into the AMT certificate or degree program.		
Examines the theory and techniques involved in making and reading aircraft drawings and blueprints. Introduces precision measurement techniques and practice, and the use of blueprint information.		
<b>AMT A176</b>	<b>Aircraft Materials and Processes I</b>	<b>2 CR</b>
Contact Hours: 2 + 2		
Prerequisites: (AMT A170 or concurrent enrollment).		
Registration Restrictions: Formal acceptance into the AMT certificate or degree program.		
Special Fees.		
Introduces aircraft cleaning, corrosion control, materials, and aircraft hardware. Covers the selection of appropriate cleaning chemicals and processes. Describes the identification, selection, and installation of aircraft hardware, fluid lines, and fittings. Examines the performance of aircraft processes such as heat treating and hardness testing.		
<b>AMT A177</b>	<b>Reciprocating Engine Theory</b>	<b>2 CR</b>
Contact Hours: 2 + 0		
Registration Restrictions: Formal acceptance into the AMT certificate or degree program.		
Introduces the theory of operation and construction of the internal combustion engine. Examines the combustion processes, design rationale, cooling and lubrication of internal combustion of reciprocating engines.		
<b>AMT A178</b>	<b>Turbine Engine Theory</b>	<b>2 CR</b>
Contact Hours: 2 + 0		
Registration Restrictions: Formal acceptance into the AMT certificate or degree program.		
Examines the construction and operation of turbine engines. Introduces thrust development and design and environmental factors that influence thrust, along with construction details from inlet to exhaust for representative aircraft turbine engines.		
<b>AMT A181</b>	<b>Aircraft Fuel Systems</b>	<b>3 CR</b>
Contact Hours: 3 + 0		
Prerequisites: AMT A176.		
Corequisite: AMT A181L.		
Examines aircraft fuels, fuel/air mixtures, basic fuel systems and fuel metering devices. Introduces the application of fuels, metering systems, tanks, valves, fuel lines, carburetors, fuel injection systems, turbochargers, and superchargers utilized in a variety of modern aircraft.		
<b>AMT A181L</b>	<b>Aircraft Fuel Systems Lab</b>	<b>1 CR</b>
Contact Hours: 0 + 3		
Prerequisites: AMT A170 and AMT A176.		
Corequisite: AMT A181.		
Special Fees.		
Examines the identification, handling, inspection, servicing, and troubleshooting aircraft fuels, basic fuel systems, and fuel metering devices, including complex aircraft systems, tanks, valves, fuel lines, carburetors, fuel injection systems, turbo-chargers, and superchargers.		
<b>AMT A185</b>	<b>Aircraft Sheetmetal Structures</b>	<b>3 CR</b>
Contact Hours: 3 + 0		
Prerequisites: AMT A176.		
Corequisite: AMT A185L.		
Introduces sheetmetal, its properties, and uses in fabrication of structural and nonstructural components of aerospace vehicles. Inspection techniques are addressed along with fabrication and repair processes of bending, cutting, forming, drilling, and riveting aluminum sheetmetal parts.		

## Course Descriptions

<p><b>AMT A185L Aircraft Sheetmetal Structures Lab</b> 2 CR            Contact Hours: 0 + 5            Prerequisites: AMT A170 and AMT A176.            Corequisite: AMT A185.            Special Fees.            Examines the inspection, fabrication, and repair of aircraft sheetmetal structures including the processes of bending, cutting, forming, drilling, and riveting aluminum sheetmetal parts.</p>	<p><b>AMT A279 Aircraft Turbine Engine Repair and Overhaul</b> 3 CR            Contact Hours: 3 + 0            Prerequisites: AMT A175 and AMT A178.            Corequisite: AMT A279L.            Examination of turbine engine construction details and engine support systems. Examination of operational characteristics and the procedures and practices used to repair or overhaul typical aircraft turbine systems.</p>
<p><b>AMT A186 Aircraft Non-Destructive Inspection Methods</b> 3 CR            Contact Hours: 2 + 2            Prerequisites: AMT A170.            Special Fees.            Introduces the selection and use of appropriate non-destructive testing methods commonly employed in the aircraft industry such as visual, dye penetrant, magnetic particle, eddy current, and ultrasound.</p>	<p><b>AMT A279L Aircraft Turbine Engine Repair and Overhaul Lab</b> 1 CR            Contact Hours: 0 + 3            Prerequisites: AMT A175 and AMT A178.            Corequisite: AMT A279.            Special Fees.            Examines practices involved in the disassembly, assembly, inspection, and repair of aircraft turbine engines. Emphasizes the use of technical data, appropriate tools and inspection devices along with special safety procedures related to the servicing, operation, and repair of turbine engines.</p>
<p><b>AMT A187 Aircraft Reciprocating Engine Overhaul</b> 3 CR            Contact Hours: 3 + 0            Prerequisites: AMT A175 and AMT A177.            Corequisite: AMT A187L.            Introduces the overhaul practices for aircraft internal combustion engines. Includes disassembly, cleaning, non-destructive testing, measurement, lubrication, and assembly of engines.</p>	<p><b>AMT A282 Aircraft Propeller Systems</b> 1 CR            Contact Hours: 1 + 1            Prerequisites: AMT A177 and AMT A178.            Special Fees.            Examines the installation, operation, inspection, performance testing, and troubleshooting of aircraft propeller systems.</p>
<p><b>AMT A187L Aircraft Reciprocating Engine Overhaul Lab</b> 2 CR            Contact Hours: 0 + 5            Prerequisites: AMT A170 and AMT A175.            Corequisite: AMT A187.            Special Fees.            Provides practice in the performance of overhaul of aircraft internal combustion engine. Describes disassembly, cleaning, non-destructive testing, measurement, lubrication, and assembly of internal combustion engine.</p>	<p><b>AMT A283 Aircraft Auxiliary Systems</b> 3 CR            Contact Hours: 3 + 0            Prerequisites: AMT A274 and AMT A274L.            Corequisite: AMT A283L.            Examines the operation, maintenance, servicing, and troubleshooting of auxiliary systems on aircraft. Details the environmental control systems (heat, air conditioning, pressurization, oxygen), ice and rain control systems, instrumentation, fire protection, and associated indicating and warning systems of commuter and transport category aircraft.</p>
<p><b>AMT A272 Aircraft Electrical Hardware and Systems</b> 3 CR            Contact Hours: 2 + 2            Prerequisites: AMT A174 and AMT A174L.            Special Fees.            Examines the operation, application, servicing, and installation practices of aircraft electrical components such as switches, relays, fuses, other circuit protection devices, wires, and connectors. Describes components such as aircraft batteries, power generators (DC and AC), and aircraft electrical distribution systems. Details the methods used in testing, inspecting, and troubleshooting these components.</p>	<p><b>AMT A283L Aircraft Auxiliary Systems Lab</b> 1 CR            Contact Hours: 0 + 3            Prerequisites: AMT A274 and AMT A274L.            Corequisite: AMT A283.            Special Fees.            Examines the operation, maintenance, servicing, inspection, and troubleshooting of auxiliary systems on aircraft. Skill building practice is provided in operating, servicing, and troubleshooting systems using system schematics, wiring diagrams, and maintenance information.</p>
<p><b>AMT A273 Aircraft Fluid Power Systems</b> 2 CR            Contact Hours: 2 + 0            Prerequisites: AMT A176.            Corequisite: AMT A273L.            Introduces fluid power and the application of pressure, force, area, volume, flow and speed, and function of fluid power in aircraft systems. Examines fluids, seals, hoses, tubing, connections, component identification and function, inspection, installation, and overhaul. Explores system operation, inspection, and troubleshooting for hydraulic, pneumatic, and landing gear systems.</p>	<p><b>AMT A284 Aircraft Electrical Machinery</b> 2 CR            Contact Hours: 2 + 0            Prerequisites: AMT A272.            Corequisite: AMT A284L.            Examines the construction, operation, inspection, servicing, and repair of aircraft electrical components such as electric motors, generators, alternators, voltage controls, magnetos, and ignition system components.</p>
<p><b>AMT A273L Aircraft Fluid Power Systems Lab</b> 2 CR            Contact Hours: 0 + 5            Prerequisites: AMT A176.            Corequisite: AMT A273.            Special Fees.            Examines the identification, installation operation, and servicing of fluid power systems and components such as fluids, seals, hoses, tubing, connections, pumps, valves, regulators, filters, reservoirs, and actuators. Analyses of system operation, inspection, and troubleshooting are included for hydraulic, pneumatic, and landing gear systems.</p>	<p><b>AMT A284L Aircraft Electrical Machinery Lab</b> 2 CR            Contact Hours: 0 + 5            Prerequisites: AMT A272.            Corequisite: AMT A284.            Special Fees.            Application of practices in inspecting, servicing, operation, testing, and repair of electrical components such as electrical motors, DC generators, DC alternators, AC alternators, voltage regulators, reverse current relays, generator and alternator protection devices, magnetos, and ignition system components.</p>
<p><b>AMT A274 Aircraft Electronic Systems</b> 5 CR            Contact Hours: 5 + 0            Prerequisites: AMT A174.            Corequisite: AMT A274L.            Examines the use of mechanical and electronic systems in sensing, communicating, and displaying information, along with solid state and digital devices, sensors, and special circuits used in instrumentation systems on aircraft. Analyzes the methods used in testing, inspecting, and troubleshooting those systems.</p>	<p><b>AMT A285 Aircraft Bonded Structures</b> 4 CR            Contact Hours: 4 + 0            Prerequisites: AMT A176.            Corequisite: AMT A285L.            Examines the theory of and techniques used in the fabrication, inspection, repair, and finishing of bonded structures, plastics, wood structures, fabric covering, honeycomb structures, and advanced composite structures.</p>
<p><b>AMT A274L Aircraft Electronic Systems Lab</b> 1 CR            Contact Hours: 0 + 3            Prerequisites: AMT A174L.            Corequisite: AMT A274.            Special Fees.            Provides practice in creating, operating, testing, and analyzing solid state and digital devices, sensors, and special circuits used in instrumentation systems and the mechanical and electrical systems used in sensing, communicating, and displaying information in aircraft.</p>	<p><b>AMT A285L Aircraft Bonded Structures Lab</b> 1 CR            Contact Hours: 0 + 3            Prerequisites: AMT A176.            Corequisite: AMT A285.            Special Fees.            Provides practice in the fabrication, inspection, and repair of bonded structures including plastics, fabric covering, honeycomb structures, advanced composite structures, and painting.</p>

<b>AMT A286</b>	<b>Aircraft Materials and Processes II</b>	<b>2 CR</b>
Contact Hours: 1 + 2 Prerequisites: AMT A176. Special Fees. Examines the theory of and techniques used in the repair of aircraft steel structures, and certain aluminum, magnesium, and titanium components.		
<b>AMT A287</b>	<b>Reciprocating Engine Installation and Operation</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: AMT A181 and AMT A187. Corequisite: AMT A287L. Provides an in-depth study of the installation, operation, and inspection of aircraft reciprocating engines. Examines the application of performance testing and troubleshooting practices commonly used to diagnose and correct aircraft engine problems.		
<b>AMT A287L</b>	<b>Reciprocating Engine Installation and Operation Lab</b>	<b>2 CR</b>
Contact Hours: 0 + 5 Prerequisites: AMT A181L and AMT A187L. Corequisite: AMT A287. Special Fees. Provides practice in the installation, operation, and inspection of aircraft reciprocating engines. Details the application of performance testing and troubleshooting practices commonly used to diagnose and correct aircraft engine problems.		
<b>AMT A289</b>	<b>Turbine Engine Installation and Operation</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: AMT A181 and AMT A279. Corequisite: AMT A289L. Provides an in-depth study of the installation, operation, and inspection of aircraft turbine engines. Examines the application of performance testing and troubleshooting practices commonly used to diagnose and correct aircraft engine problems.		
<b>AMT A289L</b>	<b>Turbine Engine Installation and Operation Lab</b>	<b>2 CR</b>
Contact Hours: 0 + 5 Prerequisites: AMT A181L and AMT A279L. Corequisite: AMT A289. Special Fees. Provides practice in the installation, operation, and inspection of aircraft turbine engines. Details the application of performance testing and troubleshooting practices commonly used to diagnose and correct aircraft engine problems.		
<b>AMT A364</b>	<b>Aircraft Avionics Systems</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: AMT A274. Examines the fundamentals of design, installation, operation, testing, and maintenance of airborne communication, navigation, instrument, and auto flight systems.		
<b>AMT A369</b>	<b>Airframe Assembly and Inspections</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: AMT A185 and AMT A272. Corequisite: AMT A369L. Examines the procedures and rules for performance of scheduled and non-scheduled aircraft inspections and evaluation of the condition of aircraft and their systems to determine air worthiness. Details aircraft disassembly, balancing, reassembly, weight and balance, and the procedures for rigging structural assemblies and flight control systems. Students will conduct research on regulations and conformity data; plan and perform inspections, then analyze and record findings.		
<b>AMT A369L</b>	<b>Airframe Assembly and Inspections Lab</b>	<b>2 CR</b>
Contact Hours: 0 + 5 Prerequisites: AMT A185L and AMT A272. Corequisite: AMT A369. Special Fees. Provides practice in the performance of scheduled and non-scheduled aircraft inspections. Includes practice in the performance of jacking and weighing of aircraft and disassembly, balancing, reassembly, and rigging of aircraft assemblies and flight controls, researching data, inspecting systems and components, evaluating the condition of aircraft and systems to determine air worthiness, recording findings in maintenance records.		

## ANTH - Anthropology

*Offered through the College of Arts and Sciences*

*Beatrice McDonald Hall (BMH), Room 212, 786-6840*

*<http://anthro.uaa.alaska.edu>*

<b>ANTH A101</b>	<b>Introduction to Anthropology</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Course Attributes: UAA GER Social Sciences Requirement. Special Note: Recommended for majors and non-majors. Introduction to fundamentals of the four subfields of anthropology: archaeology, cultural anthropology, biological anthropology and anthropological linguistics. The course introduces basic ideas, methods and findings of anthropology.		
<b>ANTH A200</b>	<b>Natives of Alaska</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Course Attributes: UAA GER Social Sciences Requirement. Introduction to culture and history of Alaska Natives. Includes environmental settings, linguistic subdivisions, traditional sociocultural organization and subsistence patterns, contact with non-Native groups, and contemporary issues, including education, politics, and law.		
<b>ANTH A202</b>	<b>Cultural Anthropology</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Course Attributes: UAA GER Social Sciences Requirement. Introduction to the methods, theories, and fundamental concepts in the study of cultural systems. Includes social relationships, economic organization, political systems, symbols and beliefs, and issues related to gender, power, world systems and colonialism, and the social construction of human lives.		
<b>ANTH A205</b>	<b>Biological Anthropology</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Special Note: Offered Fall and Spring Semesters. Introduction to human behavior, genetics, classification and evolution with comparisons to other primates. Examines distribution, morphological and physiological adaptations of human populations.		
<b>ANTH A210</b>	<b>Introduction to Linguistic Anthropology</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Explores languages as communicative interaction and discourse strategies. Discusses multilingualism, sociolinguistics, language change and variation, language endangerment and revitalization, linguistic typologies, folk taxonomies, and kinship in relation to language and culture.		
<b>ANTH A211</b>	<b>Fundamentals of Archaeology</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Introduction to basic concepts, theories and methods of archaeology with overview of historical development and major findings. Prepares students for archaeological field schools and more specialized courses.		
<b>ANTH A250</b>	<b>The Rise of Civilization</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Course Attributes: UAA GER Social Sciences Requirement. Survey of the emergence of civilization in human cultural development. A foundation course covering biological emergence of modern humans, appearance of complex symbolic culture, domestication, urbanization, trade, ritual and ideology, and state formation. A comparative framework is used covering primary areas of civilization--Sumeria, Egypt, China, Indus River, Mesoamerica, South America--and secondary areas, including Southeast Asia, Japan, Africa, and North America.		
<b>ANTH A270</b>	<b>Women in Cross-Cultural Perspective</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Surveys women in a cross-cultural perspective, exploring the nature of the relationship between gender and sex roles.		
<b>ANTH A290</b>	<b>Special Topics in Anthropology</b>	<b>1-3 CR</b>
Contact Hours: 1-3 + 0 Special Note: May be repeated once for credit with a change in subtitle. Special topics course of general interest in anthropology.		
<b>ANTH A312</b>	<b>North American Archaeology</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ANTH A211. Traces human cultural developments in the New World north of Mexico up to the time of European contact.		

## Course Descriptions

<p><b>ANTH A324 Psychological Anthropology 3 CR</b>            Contact Hours: 3 + 0            Prerequisites: ANTH A101 or ANTH A202.            History, major theories, methods, debates and findings in the intersection of the disciplines of anthropology and psychology regarding the investigation of human psychology in diverse cultural settings. Topics to be covered include: early approaches to the field of culture and personality; exploration of the effects of culture on human emotion, motivation, cognition; notions of the self, culture and mental health/mental disorder, gender, altered states of consciousness, dreams, and culture change.</p> <p><b>ANTH A325 Cook Inlet Anthropology 3 CR</b>            Contact Hours: 3 + 0            Special Note: Offered Alternate Fall Semesters.            Study of the peoples and cultures of the Native, Russian and American periods of the Cook Inlet region. Includes original archaeological studies and ethnohistoric documents.</p> <p><b>ANTH A335 Native North Americans 3 CR</b>            Contact Hours: 3 + 0            Registration Restrictions: ANTH A202 recommended.            Special Note: Offered as Demand Warrants.            Traditional cultures of Native North Americans, effects of contact with Europeans and contemporary adaptations.</p> <p><b>ANTH A336 Peoples and Cultures of South America 3 CR</b>            Contact Hours: 3 + 0            Prerequisites: ANTH A202 or ANTH A211.            Cultural traditions of South American peoples, including origins, prehistory, languages, biological and cultural affiliations, effects of European contact, historical transformations, contemporary adaptations, and current issues.</p> <p><b>ANTH A338 Peoples and Cultures of Scandinavia 3 CR</b>            Contact Hours: 3 + 0            Special Note: Offered as Demand Warrants.            Cultural history and variations of Scandinavian peoples including their origins, prehistory, biological affiliations, major migrations and selected current issues.</p> <p><b>ANTH A354 Culture and Ecology 3 CR</b>            Contact Hours: 3 + 0            Prerequisites: ANTH A202 and ENVI A201.            Registration Restrictions: Completion of GER Tier 1 (basic college-level skills) courses and junior standing.            Course Attributes: UAA GER Integrative Capstone.            Anthropological approaches to the relationships between cultural and ecological systems. Culture as an adaptive system and the role of various cultural subsystems in different adaptations. Application of ecological concepts to human societies; impacts of environmental change on human societies, and impacts of human societies on environments; ethnoecology and traditional ecological knowledge of indigenous communities; values of nature among Western and non-Western societies; and political ecology in relation to the juxtaposition of indigenous peoples within contemporary nation-states.</p> <p><b>ANTH A360 Anthropology of Art 3 CR</b>            Contact Hours: 3 + 0            Prerequisites: ANTH A101 or ANTH A202.            History, major theories, debates, and findings in the intersection of the disciplines of anthropology and art regarding the investigation of visual representations and aesthetics across cultures, and the impacts of globalization and tourism on indigenous art. Study of the cultural goals, production, care, and duration of pictorial representation from multiple perspectives.</p> <p><b>ANTH A361 Language and Culture 3 CR</b>            Contact Hours: 3 + 0            Prerequisites: ANTH A210 or LING A101.            Study of the relationship between language and culture. Includes language variation, meaning in culture, taxonomies and phonemic principles.</p> <p><b>ANTH A365 Modern Human Biological Diversity 3 CR</b>            Contact Hours: 3 + 0            Prerequisites: ANTH A205.            Special Note: STAT A253 strongly recommended.            Survey of modern human biological variation in an evolutionary perspective. Comparison of the differences (and similarities) within and between modern human populations and the distribution of those differences.</p> <p><b>ANTH A371 Selected Topics in Anthropology 1-3 CR</b>            Contact Hours: 1-3 + 0            Special Note: May be repeated for credit.            Topic varies.</p>	<p><b>ANTH A375 Introduction to Cultural Resource Management 3 CR</b>            Contact Hours: 3 + 0            Prerequisites: ANTH A211.            Practical aspects of cultural resource management, from evaluating cultural resources and the appropriate laws to ethical conduct, mapping, and resume writing.</p> <p><b>ANTH A400 Anthropology of Religion 3 CR</b>            Contact Hours: 3 + 0            Prerequisites: ANTH A202.            Descriptive and comparative study of religious phenomena in traditional societies including myth, ritual, magic, witchcraft and shamanism.</p> <p><b>ANTH A410 History of Anthropology 3 CR</b>            Contact Hours: 3 + 0            Registration Restrictions: 12 credits of Anthropology            Development of the science of anthropology, stressing the leaders in the field and the theories developed.</p> <p><b>ANTH A413 Peopling of the Americas 3 CR</b>            Contact Hours: 3 + 0            Prerequisites: ANTH A211.            Special Note: ANTH A434 strongly recommended.            Critical analysis of the literature concerning the origins of the first Americans, the timing and nature of the earliest migrations across the Bering Land Bridge, and the adaptations developed by early peoples in the Americas from 14,000 to 10,000 years ago. Detailed analysis of relevant archaeological sites as well as linguistic and biological data pertaining to Native American origins.</p> <p><b>ANTH A415 Applied Anthropology 3 CR</b>            Contact Hours: 3 + 0            Prerequisites: ANTH A101 or ANTH A202.            May be stacked with: ANTH A615.            The methods, theory and history of the application of cultural anthropology to sociocultural issues and problems with an emphasis on the circumpolar north.</p> <p><b>ANTH A416 Arctic Archaeology 3 CR</b>            Contact Hours: 3 + 0            Prerequisites: ANTH A211.            Origins and development of the prehistoric cultures of northern North America and adjacent northeast Asia.</p> <p><b>ANTH A425 Archaeology of Identity 3 CR</b>            Contact Hours: 3 + 0            Prerequisites: ANTH A211.            Examination of gender, age, social status, and ethnicity using archaeological data.</p> <p><b>ANTH A427 Ethnohistory of Alaska Natives 3 CR</b>            Contact Hours: 3 + 0            Prerequisites: ANTH A200.            May be stacked with: ANTH A627.            Examination of major changes in Alaskan Native societies from initial contact to 1940, through the integration of archaeological evidence, oral traditions, historical narratives and governmental documents.</p> <p><b>ANTH A429 Contemporary Alaska Native Society 1940 - Present 3 CR</b>            Contact Hours: 3 + 0            Registration Restrictions: Junior standing            May be stacked with: ANTH A629.            Special Note: ANTH A200 recommended            Examines continuity and change in Alaska Native society from 1940 to present covering militarization, Alaska statehood, Alaska Native Land Claims, subsistence, tribal movements, cultural revitalization, and impacts of state and federal policies; regional, economic, political, and cultural changes addressed, and key events and players discussed.</p> <p><b>ANTH A430 Research Methods in Cultural Anthropology 3 CR</b>            Contact Hours: 3 + 0            Prerequisites: ANTH A202.            May be stacked with: ANTH A630.            Modes of scientific data gathering, analysis, and interpretation related to sociocultural systems. Includes the logic of scientific inquiry, research design, data recording, data manipulation, field work strategies, ethnographic and report writing, ethics in social science research, and grant proposal preparation.</p>
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<b>ANTH A431</b>	<b>Field Methods in Archaeology</b>	<b>1-8 CR</b>	<b>ANTH A457</b>	<b>Food and Nutrition: An Anthropological Perspective</b>	<b>3 CR</b>
Contact Hours: 0 + 3-24 Prerequisites: ANTH A211. May be stacked with: ANTH A631. Special Fees. Special Note: May be repeated once for credit. Introduction to basic techniques of archaeological survey and excavation, including archaeological data recovery and recording techniques, initial laboratory processing, and preliminary analysis of archaeological materials.			Contact Hours: 3 + 0 Prerequisites: ANTH A202 or ANTH A205. May be stacked with: ANTH A657. Relationship of human culture to food and nutrition. Includes the history of human diet and its relationship to biological and cultural evolution, contemporary human nutrition in cross-cultural perspective, dietary adequacy and nutritional pathology, food-getting and food-preparation technology, and relationship between food and population, gender, ideology and socioeconomic status.		
<b>ANTH A432</b>	<b>Hunting and Gathering Societies</b>	<b>3 CR</b>	<b>ANTH A460</b>	<b>Peace, War, and Violence: An Anthropological Perspective</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ANTH A202. Cross-cultural analysis of hunting and gathering societies, including their prehistory, subsistence, demography, economic and political organization, social structure, and ideology, with special attention given to contemporary issues such as gender roles and aboriginal land rights.			Contact Hours: 3 + 0 Prerequisites: ANTH A202. Special Note: ANTH A211 recommended. A critical evaluation of the archeological and ethnographic record concerning violence, warfare, and peace-making both within and between human societies. Biological, ecological, cultural, and psychological theories of violence and warfare are considered, and the consequences of violence and warfare for human societies are assessed. Various social, political, symbolic, and ritual contexts for both peace-making and legitimization of individual and group violence are considered. Levels and types of violence in band, tribal, chiefdom, and state-level societies are considered, including ethnocide, genocide, and terrorism in contemporary global conflicts.		
<b>ANTH A434</b>	<b>Peoples and Cultures of Northeast Asia</b>	<b>3 CR</b>	<b>ANTH A476</b>	<b>Ethical Issues in Archaeology</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ANTH A101 or ANTH A202. Special Note: ANTH A211 is recommended. Examines cultural traditions of the indigenous peoples of Northeast Asia (Siberia, the Russian Far East, Mongolia, Manchuria, Korea, Japan), including their origins, prehistory, languages, biological affiliations, historical transformations, contemporary cultures, and current problems.			Contact Hours: 3 + 0 Prerequisites: ANTH A211. May be stacked with: ANTH A676. Examination of the ethical issues that confront archaeologists, and the responsibilities they have to the public, the discipline, their colleagues, and member of the cultures with whom they are working.		
<b>ANTH A435</b>	<b>Northwest Coast Cultures</b>	<b>3 CR</b>	<b>ANTH A480</b>	<b>Analytical Techniques in Archaeology</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ANTH A200. Indigenous peoples and cultures of the Northwest Coast, including prehistory, regional variations, key institutions (potlatch, art, slavery, spirituality, warfare), cultural history, ethnohistoric change and contemporary issues such as cultural revitalization, land and resources rights, and self-determination.			Contact Hours: 0 + 9 Prerequisites: ANTH A211. May be stacked with: ANTH A680. Special Fees. Methods and techniques of description, classification and analysis of archaeological data. Laboratory work with archaeological specimens and data is emphasized.		
<b>ANTH A436</b>	<b>Aleut Adaptations</b>	<b>3 CR</b>	<b>ANTH A481</b>	<b>Museum Studies in Anthropology</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ANTH A200. Intensive study of traditional and post-contact Aleut (Unangan) culture. Includes origins, prehistory, biological and cultural adaptations. Also considers contemporary Aleut social, economic and political status.			Contact Hours: 3 + 0 Prerequisites: ANTH A202 or ANTH A205 or ANTH A211. Registration Restrictions: Six credits of Anthropology and/or museum studies. May be stacked with: ANTH A681. History and practice of anthropology in museums. Anthropological and metaphysical dimensions of museums and material culture; the history of ethnographic collecting and research (particularly in North America); critical theory and practice of exhibitions and cultural representation; repatriation and indigenous museums in historical context.		
<b>ANTH A437</b>	<b>Eskimo Adaptations</b>	<b>3 CR</b>	<b>ANTH A482</b>	<b>Historical Archaeology</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ANTH A200. Addresses peoples of the Arctic coastal areas of Alaska and Canada whose traditional languages are of the Inuit-Unangan language family. Students will learn about public debates over the use of the word "Eskimo" and other terms. Focuses on the Inuit and Yup'ik language areas, including the Kalaallit (Greenlanders).			Contact Hours: 3 + 0 Prerequisites: ANTH A211. Special Note: Offered as Demand Warrants. An examination of the field of historical archaeology, the place of historical archaeology within the larger discipline of anthropological archaeology, the history of research on historical sites, the nature of historical data, the uses of non-documentary historical data, and ethnoarchaeology.		
<b>ANTH A438</b>	<b>Tlingit and Haida Adaptations</b>	<b>3 CR</b>	<b>ANTH A483</b>	<b>Archaeology of Animals</b>	<b>4 CR</b>
Contact Hours: 3 + 0 Prerequisites: ANTH A200 or ANTH A435. Comparative analysis of Tlingit and Haida adaptations to the north Pacific Coast including ecological, social, ceremonial, political and cultural characteristics over the period from prehistoric emergence to contemporary conditions in Alaska and British Columbia.			Contact Hours: 3 + 2 Prerequisites: ANTH A211. May be stacked with: ANTH A683. Special Fees. Special Note: ANTH A480 recommended Methods and techniques for, and theoretical approaches to, the description, analysis, and interpretation of animal bone assemblages from archaeological sites. Includes identification and quantification of animal remains, paleoenvironmental and dietary reconstruction, seasonality of site occupation, hunting and herding strategies, and the role of animals in the economy and ideology of human societies.		
<b>ANTH A439</b>	<b>Athabaskan Adaptations</b>	<b>3 CR</b>	<b>ANTH A484</b>	<b>Lithic Technology</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ANTH A200. Traditional and contemporary northern Athabaskan cultures and their history in Alaska and Canada, with relevant information pertaining to Athabascans of the Pacific Northwest. Emphasis on environmental adaptations, commonalities and variations in cultural patterning, the impact of interactions with neighboring peoples and Europeans, and culture changes over time.			Contact Hours: 3 + 0 Prerequisites: ANTH A211. Special Fees. Analysis of stone tool assemblages from archaeological sites, focusing on tool manufacture, use, and discard processes. Includes tool replication as part of learning the manufacturing process.		
<b>ANTH A445</b>	<b>Evolution of Humans and Disease</b>	<b>3 CR</b>			
Contact Hours: 3 + 0 Prerequisites: ANTH A205. May be stacked with: ANTH A645. Special Note: STAT A252 or STAT A253 strongly recommended. Evolution of human response to disease; evolution of disease response to humans. Interrelationships of human behavior, biology and disease.					
<b>ANTH A455</b>	<b>Medical Anthropology</b>	<b>3 CR</b>			
Contact Hours: 3 + 0 Prerequisites: ANTH A202 or ANTH A205. May be stacked with: ANTH A655. Special Note: Offered Alternate Fall Semesters. Study of the relationship of human culture to health and disease. Includes ancient disease and impact on human evolution, interrelationship between biology and culture, alternative health systems, and applicability to contemporary problems.					

## Course Descriptions

<b>ANTH A485</b>	<b>Human Osteology</b>	<b>4 CR</b>	<b>ANTH A627</b>	<b>Ethnohistory of Alaska Natives</b>	<b>3 CR</b>
Contact Hours: 3 + 2 Prerequisites: ANTH A205. May be stacked with: ANTH A685. Special Fees. Methods of human skeletal identification, description, and analysis. Includes identification of age and sex attributes. Lecture and laboratory format.			Contact Hours: 3 + 0 Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Graduate standing. May be stacked with: ANTH A427. Special Fees. Special Note: In addition to meeting all requirements for ANTH A427, graduate students will be required to prepare a research paper from primary sources (oral, written or both) and give a presentation of findings to the class. Not available to students who have taken ANTH A427. Examines major changes in Alaskan Native societies from initial contact through 1940, through the integration of archaeological evidence, oral traditions, historical narratives and governmental documents.		
<b>ANTH A486</b>	<b>Applied Human Osteology</b>	<b>3 CR</b>	<b>ANTH A629</b>	<b>Contemporary Alaska Native Society 1940 - Present</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ANTH A485. May be stacked with: ANTH A686. Special Note: STAT A252 or STAT A253 or STAT A307 recommended Methods and techniques of the applications of human osteology, including paleopathology, bioarchaeology, and forensic anthropology. Includes identification and analysis of age, sex, and population attributes from human skeletal remains.			Contact Hours: 3 + 0 Registration Restrictions: Graduate standing May be stacked with: ANTH A429. Special Fees. Examines continuity and change in Alaska Native society from 1940 to present covering militarization, Alaska statehood, Alaska Native Claims, subsistence, tribal movements, cultural revitalization, and impacts of state and federal policies; regional, economic, political, and cultural changes addressed, and key events and players are discussed. Examines subject matter in light of contemporary anthropological theory and findings.		
<b>ANTH A490</b>	<b>Selected Topics in Anthropology</b>	<b>1-3 CR</b>	<b>ANTH A630</b>	<b>Advanced Research Methods in Cultural Anthropology</b>	<b>3 CR</b>
Contact Hours: 1-3 + 0 Special Note: May be repeated for credit with change of subtitle. Topics in anthropology presented by members of the professional community.			Contact Hours: 3 + 0 Registration Restrictions: Graduate Standing. May be stacked with: ANTH A430. Special Fees. Special Note: Lectures concurrent with ANTH A430. In addition to meeting all requirements for ANTH A430, graduate students will be required to complete a research grant proposal and engage in computer-assisted qualitative data analysis. Offered as Demand Warrants. Modes of scientific data gathering, analysis, and interpretation related to sociocultural systems. Includes the logic of scientific inquiry, research design, data recording, computer assisted qualitative data analysis, field work strategies, ethnographic and report writing, ethics in social science research and grant proposal preparation.		
<b>ANTH A495</b>	<b>Practicum in Anthropology</b>	<b>1-3 CR</b>	<b>ANTH A631</b>	<b>Field Methods in Archaeology</b>	<b>1-8 CR</b>
Contact Hours: 1-3 + 0 Registration Restrictions: 15 credit hours in Anthropology, permission of instructor of record, approval of agency mentor. Special Note: May be repeated once for credit. Application of practical anthropological skills learned under the supervision of a professional anthropologist.			Contact Hours: 0 + 3-24 Prerequisites: ANTH A211. Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Graduate standing. May be stacked with: ANTH A431. Special Fees. Special Note: May be repeated once for credit. Graduate students will supervise the work of less experienced undergraduates under the overall supervision of the project director. They will be responsible for the quality of the excavation and recording of their undergraduate crew. They will be critically evaluated as potential professionals. Advanced techniques of archaeological survey and excavation, including archaeological data recovery and recording techniques, initial laboratory processing, and preliminary analysis of archaeological materials.		
<b>ANTH A499</b>	<b>Senior Thesis in Anthropology</b>	<b>3 CR</b>	<b>ANTH A645</b>	<b>Advanced Evolution of Humans and Disease</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Senior standing in the undergraduate Anthropology major and acceptance into Honors in Anthropology by faculty permission. Special Note: May be repeated once for credit as a part of a two-semester sequence, with permission of thesis advisor. Independent library, laboratory, or field research in anthropology resulting in a substantial, thesis-quality paper.			Contact Hours: 3 + 0 Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Graduate standing. May be stacked with: ANTH A445. Special Fees. Special Note: In addition to meeting all requirements for ANTH A445, graduate students will be required to pursue a major research project, to deliver a presentation of their research findings to the class, and to report their results in written form. Not available to students who have taken ANTH A445. Methods, techniques and theoretical approaches to the evolution of human response to disease and evolution of disease response to humans. Interrelationships of human behavior, biology and disease.		
<b>ANTH A602</b>	<b>Proseminar in Cultural Anthropology</b>	<b>3 CR</b>			
Contact Hours: 3 + 0 Major Restriction: Must be Anthropology major. Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Graduate standing; admission to the UAA Anthropology MA program. Special Fees. Advanced examination of the major theories, concepts and findings in contemporary cultural anthropology covering topics such as materialism, social structure, power, symbols, practice, cognition and postmodern views as well as postcolonial and indigenous critiques and ethical concerns.					
<b>ANTH A605</b>	<b>Proseminar in Biological Anthropology</b>	<b>3 CR</b>			
Contact Hours: 3 + 0 Major Restriction: Must be Anthropology major. Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Graduate standing; admission to the UAA Anthropology MA program. Special Fees. Methods and techniques of and theoretical approaches to topics in biological anthropology. Includes the study of evolution, human genetics, primate biology and behavior, human evolution, and statistical interpretation of biological data.					
<b>ANTH A611</b>	<b>Proseminar in Archaeology</b>	<b>3 CR</b>			
Contact Hours: 3 + 0 Major Restriction: Must be Anthropology major. Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Graduate standing; admission to the UAA Anthropology MA program. Special Fees. Survey of theoretical approaches and practice in contemporary archaeology, including archaeological data analysis and interpretation. Includes case studies, class discussions based on readings and student presentations.					
<b>ANTH A615</b>	<b>Advanced Applied Anthropology</b>	<b>3 CR</b>			
Contact Hours: 3 + 0 Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Graduate standing. May be stacked with: ANTH A415. Special Fees. Special Note: In addition to meeting all requirements for ANTH A415, graduate students will be required to make mixed-media class presentations based on literature research or interviews with local practicing anthropologists. Relates to the methods, theory and history of application of cultural anthropology to sociocultural issues and problems with an emphasis on the circumpolar north.					



**ART - Art**

*Offered through the College of Arts and Sciences*

*Fine Arts Building (ARTS), Room 302A, 786-1783*

*<http://art.uaa.alaska.edu>*

**ART A100 Two-Dimensional Activities 1-3 CR**  
(Topics in Drawing, Design, or Painting)

Contact Hours: 0 + 2-6

Special Fees.

Special Note: Does not satisfy BA or BFA degree requirements. May be repeated 3 times for credit in different topic areas.

Art studio topics in drawing, painting, or design may be offered to introduce possible areas for future concentrated study. Recommended for students seeking initial exposure to studio arts.

**ART A101 Three Dimensional Activities 1-3 CR**  
(3-D Materials and Techniques)

Contact Hours: 0 + 2-6

Special Fees.

Special Note: Does not satisfy BA or BFA degree requirements. May be repeated 3 times for credit in different topic areas.

Art studio topics in sculpture, ceramics, or metalsmithing may be offered to introduce possible areas for future concentrated study. Recommended for students seeking initial exposure to studio arts.

**ART A102 Fiber and Basketry Activities 1-3 CR**  
(Topics in Fibers, Basketry, Weaving or Papermaking)

Contact Hours: 0 + 2-6

Special Fees.

Special Note: Does not satisfy BA or BFA degree requirements. May be repeated 3 times for credit in different topic areas.

Art studio topics in fibers, basketry, weaving, or papermaking may be offered to introduce possible areas for future concentrated study. Recommended for students seeking initial exposure to studio arts.

**ART A103 Replicative Arts 1-3 CR**  
(Topics in Printmaking, Photography, & Digital Arts)

Contact Hours: 0 + 2-6

Special Fees.

Special Note: Does not satisfy BA or BFA degree requirements. May be repeated 3 times for credit in different topic areas.

Art studio topics in printmaking, photography, and digital arts may be offered to introduce possible areas for future concentrated study. Recommended for students seeking initial exposure to studio arts.

**ART A104 Multi-Media Activities 1-3 CR**

Contact Hours: 0 + 2-6

Special Fees.

Special Note: Does not satisfy BA or BFA degree requirements. May be repeated 3 times for credit in different topic areas.

Art studio topics combining two or more disciplines in multi-media art processes to introduce possible areas for future concentrated study. Recommended for students seeking initial exposure to studio arts.

**ART A105 Beginning Drawing 3 CR**

Contact Hours: 0 + 6

Special Fees.

May be stacked with: ART A205, A305, and A405.

Special Fees.

Introduction to elements of drawing based on development of skill using wet and dry media such as pencil, charcoal, conte, ink, and brush. Class and homework assignments in drawing and composition of objects, still lifes, perspective effects, and the human figure.

**ART A111 Two-Dimensional Design 3 CR**

Contact Hours: 0 + 6

Special Fees.

Study of the organization, structure, and composition of form through the use of the basic design elements including color. Emphasis on development of design as related to two-dimensional art.

**ART A112 Color Design 3 CR**

Contact Hours: 0 + 6

Special Fees.

Study of fundamentals of color and two-dimensional visual perception.

Projects will emphasize evaluation and mixing of color.

**ART A113 Three-Dimensional Design 3 CR**

Contact Hours: 0 + 6

Special Fees.

Exploration of three-dimensional design. Focus on terminology, exploration of materials, and appropriate use of hand and power tools. Development of problem-solving skills and methods of self-evaluation.

**ART A160 Art Appreciation 3 CR**

Contact Hours: 3 + 0

Course Attributes: UAA GER Fine Arts Requirement.

Special Fees.

Development of an appreciation of all the visual arts. Emphasis is on the theories, practice, materials and techniques of the visual arts.

**ART A180A Beginning Stained Glass 3 CR**

Contact Hours: 3 + 0

Special Fees.

Special Note: Does not satisfy BA in Art or BFA degree requirements.

Introduces techniques including pattern designing, cutting, and lead came.

**ART A180B Intermediate Stained Glass 1 CR**

Contact Hours: 1 + 0

Prerequisites: ART A180A.

Special Fees.

Special Note: Does not satisfy BA in Art or BFA degree requirements.

Continuation of ART 180A emphasizing advanced use of lead came and copper foil.

**ART A201 Beginning Handbuilt Ceramics 3 CR**

Contact Hours: 0 + 6

May be stacked with: ART A301 and A401.

Special Fees.

Introduction to ceramic materials and processes. Emphasis on handbuilt forming methods and earthenware temperature range. Includes clays, clay bodies, slips, glazes, and firing process. Introduces ceramic history, idea development and creative problem solving.

**ART A202 Beginning Wheelthrown Ceramics 3 CR**

Contact Hours: 0 + 6

Prerequisites: ART A201.

May be stacked with: ART A302 and A402.

Special Fees.

Introduction to ceramic materials and processes. Emphasis on wheelthrowing methods and stoneware temperature range. Includes clays, clay bodies, slips, glazes, and firing process. Introduces ceramic history, idea development and creative problem solving.

**ART A203 Introduction to Art Education 3 CR**

Contact Hours: 3 + 0

Prerequisites: ENGL A111.

Registration Restrictions: Sophomore status.

Special Fees.

Introduction to general art education, museum education, and to theories, issues, and practices in historical and contemporary contexts. Includes rationales for teaching and learning art, theories of children's developmental levels in art, and technology, and teaching practices through text and journal readings.

**ART A204 History and Philosophy of Art Education 3 CR**

Contact Hours: 3 + 0

Prerequisites: ART A203.

Registration Restrictions: Sophomore status.

Special Fees.

Overview of the history and philosophical foundations of art education in the United States and implications in Alaska. Examines the theories and practices of teaching art in the public schools, cultural centers, and museums.

**ART A205 Intermediate Drawing 3 CR**

Contact Hours: 0 + 6

Prerequisites: ART A105.

May be stacked with: ART A105, A305, and A405.

Special Fees.

Expands visual awareness, technical ability and creative/conceptual input. Complex technical and intuitive/creative approaches to drawing will be investigated. Class and homework assignments in drawing objects, still life, perspective effects, and human forms.

**ART A209 Beginning Metalsmithing and Jewelry 3 CR**

Contact Hours: 0 + 6

Prerequisites: ART A105.

May be stacked with: ART A309 and A409.

Special Fees.

Introduction to the basic techniques, tools, and materials, and application of design principles. Includes historical considerations.

**ART A211 Beginning Sculpture 3 CR**

Contact Hours: 0 + 6

Prerequisites: ART A105 and ART A113.

May be stacked with: ART A311 and A411.

Special Fees.

Exploration of fundamental elements of sculpture: form, mass, volume, scale, material, and surface. Introduction to aesthetics and history of modern sculpture. Includes tools, techniques, and materials available to the sculptor.



<p><b>ART A212</b>                    <b>Beginning Watercolor</b>                    <b>3 CR</b>  Contact Hours: 0 + 6  May be stacked with: ART A312 and A412.  Special Fees.  Exploration of aquarelle techniques. Emphasizes composition as affected by color, value, stylistic considerations, and individual expression; exhibition procedures are included.</p>	<p><b>ART A262</b>                    <b>History of Western Art II</b>                    <b>3 CR</b>  Contact Hours: 3 + 0  Prerequisites: ENGL A111.  Course Attributes: UAA GER Fine Arts Requirement UAA GER Humanities Requirement.  Special Fees.  Origins and development of painting, sculpture, and architecture. Covers the history of art from the Renaissance through the modern period with an emphasis on the art of the Western World.</p>
<p><b>ART A213</b>                    <b>Beginning Painting</b>                    <b>3 CR</b>  Contact Hours: 0 + 6  Prerequisites: ART A105.  May be stacked with: ART A313, A413, and A414.  Special Fees.  Special Note: May be repeated once for credit with substantive changes in media or emphasis.  Introduction to materials and traditional techniques as applied to painting as a fine art. Focus on visual awareness, technical ability and conceptual input with investigation of intuitive and creative approaches. Subject matter drawn from still life, landscape/nature, interior spaces and the human form.</p>	<p><b>ART A270</b>                    <b>Beginning Alaska Native Art</b>                    <b>3 CR</b>  Contact Hours: 0 + 6  May be stacked with: ART A370.  Special Fees.  Exposure to and application of indigenous production, rhythms, and attitudes toward making carved art objects. Investigate Alaska Native art history, oral experience, and lifeways. Emphasis on the development of a personal aesthetic and creative design.</p>
<p><b>ART A215</b>                    <b>Beginning Printmaking</b>                    <b>3 CR</b>  Contact Hours: 0 + 6  Prerequisites: ART A105 and ART A111.  May be stacked with: ART A314, A315, and A415.  Special Fees.  Introduces basic skills and concepts of printmaking process. Focuses on creativity and craftsmanship including traditional and contemporary printmaking methods and skills.</p>	<p><b>ART A271</b>                    <b>Beginning Surface Design</b>                    <b>3 CR</b>  Contact Hours: 0 + 6  May be stacked with: ART A371 and A471.  Introduction to resist-dyeing processes using directly applied resists (wax, rice paste) in designing and patterning the art fabric surface.</p>
<p><b>ART A220</b>                    <b>Digital Imaging for Photography</b>                    <b>3 CR</b>  Contact Hours: 0 + 6  Registration Restrictions: Demonstrated computer competency or ART A103  Selected Topic: Creative Digital Darkroom.  Special Note: May be taken concurrently with ART A225.  Post-processing and editing in the digital darkroom for artistic expression and commercial creation of digital photographs.</p>	<p><b>ART A272</b>                    <b>Beginning Fiber Structures</b>                    <b>3 CR</b>  Contact Hours: 0 + 6  Prerequisites: ART A105.  May be stacked with: ART A372 and A472.  Special Fees.  Introduction to hand-constructed textiles and structural forms adapting traditional methodology to the production of contemporary art.</p>
<p><b>ART A224</b>                    <b>Beginning Photography</b>                    <b>3 CR</b>  Contact Hours: 0 + 6  Special Fees.  Basic principles including camera functions for artistic expression through the processing and printing of black and white film.</p>	<p><b>ART A273</b>                    <b>Beginning Woven Forms</b>                    <b>3 CR</b>  Contact Hours: 0 + 6  May be stacked with: ART A373 and A473.  Special Fees.  Special Note: May be repeated once for credit with substantive change in media or emphasis.  Introduction to European floor loom. Various on-loom techniques are utilized in the production of the art fabric.</p>
<p><b>ART A225</b>                    <b>Beginning Photography - Digital</b>                    <b>3 CR</b>  Contact Hours: 0 + 6  Prerequisites: (ART A220 or concurrent enrollment).  Basic principles and essential expertise for artistic and commercial expression in the creation of black and white photographic images with digital single lens reflex cameras.</p>	<p><b>ART A295</b>                    <b>Internship Digital Art</b>                    <b>1-3 CR</b>  Contact Hours: 0 + 2-6  Registration Restrictions: Admitted to program and completed eight program core courses, and three program concentration courses.  Special Note: Offered only at Kenai Peninsula College. May be repeated for a total of six credits.  Internship position. Placement is dependent upon interest, expertise, prerequisites, and appropriateness to the position.</p>
<p><b>ART A228</b>                    <b>Art as a Profession</b>                    <b>3 CR</b>  Contact Hours: 3 + 0  Prerequisites: ART A105 and ART A111 and ART A112 and [ART A205 or ART A257] and ART A261 and ART A262.  Registration Restrictions: At least one Art Studio or Digital Art Program concentration course must be taken in addition to prerequisite list.  Develops awareness of professional presentations and career paths in art disciplines. Students will create a preliminary presentation and working portfolio.</p>	<p><b>ART A295V</b>                    <b>Internship Visual Art</b>                    <b>1-3 CR</b>  Contact Hours: 0 + 3-9  Registration Restrictions: Must have completed four program core courses, at least one upper-division studio course, and must be enrolled in six credits including internship (waived during summer session), and have a 3.0 GPA.  Grade Mode: Pass/No Pass.  Special Note: May be repeated once for a total of six credits. Offered only at Kenai Peninsula College.  Internship position. Placement dependent upon interest, expertise, prerequisites and appropriateness to position.</p>
<p><b>ART A252</b>                    <b>Beginning Graphic Design and Illustration</b>                    <b>3 CR</b>  Contact Hours: 0 + 6  Prerequisites: ART A105 and ART A111.  Special Fees.  Special Note: May be repeated once for credit.</p> <p>Idea development and problem solving skills for the commercial market. Introduction to client identity, printing and production processes.</p>	<p><b>ART A301</b>                    <b>Intermediate Handbuilt Ceramics</b>                    <b>3 CR</b>  Contact Hours: 0 + 6  Prerequisites: ART A105 and ART A113 and ART A201.  Registration Restrictions: Instructor permission.  May be stacked with: ART A201 and A401.  Special Fees.  Special Note: May be repeated once for credit with substantive change in media or emphasis.  Intensified development of handbuilt forming methods with emphasis on form, content, and creative problem solving. Focus on the ceramic process as a vehicle for personal creative expression.</p>
<p><b>ART A257</b>                    <b>Digital Art and Design I</b>                    <b>3 CR</b>  Contact Hours: 0 + 6  Prerequisites: ART A105 and ART A111.  Registration Restrictions: Instructor permission.  Special Fees.  Special Note: May be repeated once for credit with substantive change in media or emphasis with instructor approval.  Introduces basic 2-D digital tools and techniques for creative expression, including vector and raster graphics.</p>	<p><b>ART A302</b>                    <b>Intermediate Wheelthrown Ceramics</b>                    <b>3 CR</b>  Contact Hours: 0 + 6  Prerequisites: ART A105 and ART A113 and ART A201 and ART A202.  Registration Restrictions: Instructor permission.  May be stacked with: ART A202 and A402.  Special Fees.  Special Note: May be repeated once for credit with substantive change in media or emphasis.  Intensified development of wheelthrowing techniques with emphasis on the history, aesthetics, and porcelain temperature range of functional pottery. Focus is on the ceramic process as a vehicle for personal creative expression.</p>
<p><b>ART A261</b>                    <b>History of Western Art I</b>                    <b>3 CR</b>  Contact Hours: 3 + 0  Prerequisites: ENGL A111.  Course Attributes: UAA GER Fine Arts Requirement UAA GER Humanities Requirement.  Special Fees.  Origins and development of painting, sculpture, and architecture. Covers the history of art from prehistory through the Medieval Period of the Western World.</p>	

## Course Descriptions

### ART A303 Curriculum Planning and Interpretation in Art 3 CR

Contact Hours: 3 + 0

Prerequisites: ART A203.

Registration Restrictions: Junior status.

Special Fees.

Introduce K-12 curriculum planning, teaching art criticism and aesthetics. Describe, analyze, interpret and evaluate the major characteristics of art forms, meanings and themes.

### ART A304 Art Experience: Social, Cultural, and Educational 3 CR

Contact Hours: 3 + 0

Prerequisites: ART A203.

Registration Restrictions: Junior status.

Special Fees.

Examines shared human experiences involved in making and responding to visual images and artifacts from different cultural perspectives. Discusses how the understanding, appreciation and interaction of particular images and objects evolve and affect the fundamental processes of perception in different cultural settings.

### ART A305 Advanced Drawing 3 CR

Contact Hours: 0 + 6

Prerequisites: ART A205.

Registration Restrictions: Instructor permission.

May be stacked with: ART A105, A205, and A405.

Special Fees.

Special Note: May be repeated once for credit with substantive change in media or emphasis.

Refinement of advanced drawing and conceptual skills by examining contemporary techniques and materials.

### ART A307 Life Drawing and Composition I 3 CR

Contact Hours: 0 + 6

Prerequisites: ART A205.

Registration Restrictions: Instructor permission.

May be stacked with: ART A407.

Special Fees.

Special Note: May be repeated once for credit with substantive change in media or emphasis.

Drawing from live models to explore possibilities in design, composition and media. Emphasis on form and space using wet and dry media including charcoal, graphite, pen, and brush.

### ART A309 Intermediate Metalsmithing and Jewelry 3 CR

Contact Hours: 0 + 6

Prerequisites: ART A209.

Registration Restrictions: Instructor permission.

May be stacked with: ART A209 and A409.

Special Fees.

Special Note: May be repeated once for credit with substantive change in media or emphasis.

Continued investigation of techniques, tools, and materials used in metalsmithing and jewelry.

### ART A311 Intermediate Sculpture 3 CR

Contact Hours: 0 + 6

Prerequisites: ART A211.

Registration Restrictions: Instructor permission.

May be stacked with: ART A211 and A411.

Special Fees.

Special Note: May be repeated once for credit with substantive change in media or emphasis.

Exploration of sculptural concepts and processes with emphasizing aesthetics and history of modern sculpture. Focus on development of construction skills with access to advanced machines and tools and their applications.

### ART A312 Intermediate Watercolor Painting 3 CR

Contact Hours: 0 + 6

Prerequisites: ART A212.

Registration Restrictions: Instructor permission.

May be stacked with: ART A212 and A412.

Special Fees.

Special Note: May be repeated once for credit with substantive change in media or emphasis.

Intensified development of expressive skills including watercolor painting techniques and refines material uses with the emphasis on individual approaches to traditional and non-traditional pictorial and conceptual problems.

### ART A313 Intermediate Painting 3 CR

Contact Hours: 0 + 6

Prerequisites: ART A213.

Registration Restrictions: Instructor permission.

May be stacked with: ART A213, A413, and A414.

Special Fees.

Special Note: May be repeated once for credit with substantive change in media or emphasis.

Intensified development of expressive skills in painting. Reviews beginning painting techniques and refines material uses with emphasis on individual approaches to pictorial and conceptual problems.

### ART A314 Printmaking--Litho/Serigraphy 3 CR

Contact Hours: 0 + 6

Prerequisites: ART A215.

Registration Restrictions: Instructor permission.

May be stacked with: Art A215, A315, and A415.

Special Fees.

Exploration of lithographic and serigraphic printmaking processes.

Continued development of printing techniques and individual creative concepts in image making.

### ART A315 Intermediate Printmaking 3 CR

Contact Hours: 0 + 6

Prerequisites: ART A215.

Registration Restrictions: Instructor permission. For the study of lithography or serigraphy, ART A314 is required as a prerequisite.

May be stacked with: ART A215, A314, and A415.

Special Fees.

Special Note: May be repeated 3 times for credit with change of printmaking process.

Explores the major processes (lithography, serigraphy, intaglio, and relief processes) linked to contemporary and digital developments.

### ART A323 Color Photography 3 CR

Contact Hours: 0 + 6

Prerequisites: ART A224.

Registration Restrictions: Instructor permission.

Special Fees.

Special Note: May be repeated once for credit with a substantive change in medium or emphasis.

Investigates techniques and conceptual approaches to color photography.

Encourages exploration of diverse approaches to color processes in photography.

### ART A324 Intermediate Photography 3 CR

Contact Hours: 0 + 6

Prerequisites: ART A224.

Registration Restrictions: Instructor permission.

Special Fees.

Investigates intermediate level techniques and conceptual approaches to photography. Encourages exploration of diverse attitudes and approaches in black and white photography for artistic expression, shooting, processing, and printing of black and white film.

### ART A325 Digital Media for Photography 3 CR

Contact Hours: 0 + 6

Prerequisites: ART A323 and [ART A225 or ART A324].

Registration Restrictions: If Art A324 is used as a prerequisite, it must have integrated darkroom/digital content.

Special Note: Offered only at Kenai Peninsula College.

Encourages different creative points of view using digital photographic technology for artistic expression. Includes digital image acquisition with a digital or film camera and film scanner while further developing studio lighting, commercial digital approaches, digital darkroom techniques, and printing digital images.

### ART A331 Experimental Photography 3 CR

Contact Hours: 0 + 6

Prerequisites: ART A324.

Registration Restrictions: Instructor permission.

Special Fees.

Special Note: May be repeated once for credit with substantive change in medium or emphasis.

Investigates experimental techniques and conceptual approaches to photography. Encourages exploration of diverse artistic expression.

### ART A352 Intermediate Graphic Design 3 CR

Contact Hours: 0 + 6

Prerequisites: ART A252.

Registration Restrictions: Instructor permission.

May be stacked with: ART A452.

Special Fees.

Special Note: May be repeated once for credit.

Projects focusing on applied creative approaches in intermediate graphic design.

<b>ART A353</b>	<b>Illustration I</b>	<b>3 CR</b>	<b>ART A370</b>	<b>Intermediate Alaska Native Art</b>	<b>3 CR</b>
Contact Hours: 0 + 6 Prerequisites: ART A257. Registration Restrictions: Instructor permission. May be stacked with: ART A453. Special Fees. Special Note: May be repeated once for credit. Study of methods for the production of illustrations. Study of problem-solving processes balancing personal creative expression with client needs.			Contact Hours: 0 + 6 Prerequisites: ART A270. May be stacked with: ART A270. Special Fees. Workshops and presentations by visiting elders/artists will be used to explore the unique methods of indigenous production and the cultural heritage of the visiting elder/ artist. Students will apply the techniques, design principles and materials of the visiting elder/artist to their projects as a point of departure to develop a personal aesthetic and creative approach to making carved objects.		
<b>ART A357</b>	<b>Digital Art and Design II</b>	<b>3 CR</b>	<b>ART A371</b>	<b>Intermediate Surface Design</b>	<b>3 CR</b>
Contact Hours: 0 + 6 Prerequisites: ART A257. Registration Restrictions: Instructor permission. Special Fees. Special Note: May be repeated once for credit with substantive change in emphasis with faculty approval. Exploration of 2-D digital tools and techniques for creative expression, emphasizing production of hard copy.			Contact Hours: 0 + 6 Prerequisites: ART A271. Registration Restrictions: Instructor permission. May be stacked with: ART A271 and A471. Special Note: May be repeated once for credit with substantive change in media or emphasis. Continued examination of resist dyeing as a culture-rooted art and its place in the contemporary fiber movement. Bound resists (Shibori, fold dyeing, Plangi and Tritik) are utilized as the basis for individual expression and design purposes.		
<b>ART A360A</b>	<b>History of Non-Western Art I</b>	<b>3 CR</b>	<b>ART A372</b>	<b>Intermediate Fiber Structures</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: [ART A261 or ART A262] and ENGL A111. Course Attributes: UAA GER Fine Arts Requirement UAA GER Humanities Requirement. Special Fees. Emphasis on a comparative approach to non-western civilizations including Indian art, Tibetan and Southeastern art, Chinese art, and Japanese art.			Contact Hours: 0 + 6 Prerequisites: ART A272. Registration Restrictions: Instructor permission. May be stacked with: ART A272 and A472. Special Fees. Special Note: May be repeated once for credit with substantive changes in media or emphasis. Explores hand-constructed textiles, traditional percussion textiles and structural forms including paper and felt making as interpreted in a contemporary context.		
<b>ART A360B</b>	<b>History of Non-Western Art II</b>	<b>3 CR</b>	<b>ART A373</b>	<b>Intermediate Woven Forms</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: [ART A261 or ART A262] and ENGL A111. Course Attributes: UAA GER Fine Arts Requirement UAA GER Humanities Requirement. Special Fees. Emphasis on a comparative approach to non-western civilizations including Islamic art, African art, art of Pacific cultures, and art of the Americas.			Contact Hours: 0 + 6 Prerequisites: ART A273. Registration Restrictions: Instructor permission. May be stacked with: ART A273 and A473. Special Fees. Special Note: May be repeated once for credit with substantive change in media or emphasis. Continued exploration of floor loom techniques and their use with off-loom processes for the production of contemporary art.		
<b>ART A361</b>	<b>History of Graphic Design</b>	<b>3 CR</b>	<b>ART A376</b>	<b>CAD for the Arts</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ART A262. Registration Restrictions: Instructor permission. Special Fees. History of graphic design emphasizing its beginnings to the present day including traditional and technological developments.			Contact Hours: 2 + 2 Prerequisites: ART A357 or THR A141. Crosslisted with: THR A376. Special Fees. Concepts and techniques of 2D and 3D computer-aided drafting. Details language and commands shared by most CAD packages with a focus on technical drawings for layout, design, and 3D computer drafting and modeling techniques, with applications to scenic, lighting, and 3D studio arts.		
<b>ART A362</b>	<b>History of Modern Art</b>	<b>3 CR</b>	<b>ART A390</b>	<b>Selected Topics in Studio Art</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ART A262. Registration Restrictions: Instructor permission. Special Fees. Historical development of art from the mid-19th century to the 1930s. Various visual arts are placed within the social and cultural contexts of this period.			Contact Hours: 0 + 6 Registration Restrictions: Instructor permission and 6 credits of upper division coursework in same studio discipline. May be stacked with: ART A490. Special Fees. Special Note: Prerequisites may vary with the different studio topics. May be repeated for credit in different studio topics for a maximum of 9 credits. Selected topics in studio art allowing for concentrated study in a specific area.		
<b>ART A363</b>	<b>History of Contemporary Art</b>	<b>3 CR</b>	<b>ART A392</b>	<b>Selected Topics in Art Education</b>	<b>1-3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ART A262. Registration Restrictions: Instructor permission. Special Fees. Analysis of the work and thought of major artists in painting, sculpture, architecture, performance and installation art from post-World War II to the present. Examines the relationship of visual art to social and cultural trends during this period.			Contact Hours: 1-3 + 0 Registration Restrictions: Instructor permission. Prerequisites will vary depending upon topic. Special Fees. Special Note: May be repeated for credit in different topics for a maximum of 12 credits. Topics in selected areas of art education.		
<b>ART A364</b>	<b>Italian Renaissance Art</b>	<b>3 CR</b>	<b>ART A401</b>	<b>Advanced Handbuilt Ceramics</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ART A262. Registration Restrictions: Instructor permission. Special Fees. Renaissance art from early Florentine beginnings to the High Renaissance of Venice and Mannerist developments.			Contact Hours: 0 + 6 Prerequisites: ART A111 and ART A211 and ART A301. Registration Restrictions: Instructor permission. May be stacked with: ART A201 and A301. Special Fees. Special Note: May be repeated once for credit. Covers functional ceramics, vessel forms and sculptural ceramics. Focus is on the ceramic process as a vehicle for personal creative expression.		
<b>ART A366</b>	<b>Asian Art</b>	<b>3 CR</b>			
Contact Hours: 3 + 0 Prerequisites: ART A261 or ART A262. Registration Restrictions: Instructor permission. Special Fees. Visual arts of Asiatic culture; prehistoric to the present.					
<b>ART A367</b>	<b>History of Photography</b>	<b>3 CR</b>			
Contact Hours: 3 + 0 Prerequisites: ART A262. Special Fees. Investigates the history of photography; its origins, chronology, culture context, and the significant contributions of individual photographers.					

## Course Descriptions

<b>ART A402</b>	<b>Advanced Wheelthrown Ceramics</b>	<b>3 CR</b>	<b>ART A412</b>	<b>Advanced Watercolor Painting</b>	<b>3 CR</b>
Contact Hours: 0 + 6 Prerequisites: ART A111 and ART A211 and ART A302. Registration Restrictions: Instructor permission. May be stacked with: ART A202 and A302. Special Fees. Special Note: May be repeated once for credit. Covers functional wheelthrown ceramics and the vessel form. Focus is on the ceramic process in a variety of firing temperatures as a vehicle for personal creative expression.			Contact Hours: 0 + 6 Prerequisites: ART A312. Registration Restrictions: Instructor permission. May be stacked with: ART A212 and A312. Special Fees. Special Note: May be repeated once for credit. Continued investigation of more advanced watercolor techniques and approaches regarding conceptual/pictorial constructions. Encourages experimentation, research and technical approaches.		
<b>ART A403</b>	<b>Arts and Technology</b>	<b>3 CR</b>	<b>ART A413</b>	<b>Advanced Painting</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ART A203. Registration Restrictions: Junior status. Special Fees. Surveys the growing use of technology in art classrooms and museums. Examines applications for information management in collections and digital imaging, and the use of technology in the service of art education, museum education, and university web-based courses.			Contact Hours: 0 + 6 Prerequisites: ART A313. Registration Restrictions: Instructor permission. May be stacked with: ART A213, A313, and A414. Special Fees. Special Note: May be repeated once for credit. Development of advanced painting techniques. Focus on complex concepts and pictorial constructions including research and experimentation in various media.		
<b>ART A404</b>	<b>Diversity and Visual Culture</b>	<b>3 CR</b>	<b>ART A414</b>	<b>Senior Painting Projects</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ART A203. Registration Restrictions: Junior status. Special Fees. Overview of the issues of diversity arising in art contexts, cultural institutions including museums, community arts organizations, and universities as well as visual culture, educational texts and history. Develop a theoretical foundation based on educational and cultural models of diversity addressing race, gender, class and pedagogical methodologies.			Contact Hours: 0 + 6 Prerequisites: ART A413. Registration Restrictions: Instructor permission. May be stacked with: ART A213, A313, and A413. Special Fees. Special Note: May be repeated once for credit. Expansion of individual ideas and concepts through continued experimentation and research in painting techniques and methodologies. Focus on developing a cohesive body of work.		
<b>ART A405</b>	<b>Experimental Drawing</b>	<b>3 CR</b>	<b>ART A415</b>	<b>Advanced Printmaking</b>	<b>3 CR</b>
Contact Hours: 0 + 6 Prerequisites: ART A305. Registration Restrictions: Instructor permission. May be stacked with: ART A105, A205, and A305. Special Fees. Special Note: May be repeated once for credit. Integrates the development of ideas and personal iconography through experimentation with contemporary techniques and materials in drawing.			Contact Hours: 0 + 6 Prerequisites: ART A314 and ART A315. Registration Restrictions: Instructor permission. May be stacked with: ART A215, A314, and A315. Special Fees. Special Note: May be repeated three times for credit with change of printmaking process. Continued development in major printmaking processes including lithography, serigraphy, intaglio, and relief. Explores connections between various printmaking disciplines and contemporary practices, especially digital development and production of one of a kind projects. Development of individual creative concepts and experimentation in image making is expected. Interdisciplinary approaches encouraged.		
<b>ART A407</b>	<b>Life Drawing and Composition II</b>	<b>3 CR</b>	<b>ART A424</b>	<b>Advanced Photography</b>	<b>3 CR</b>
Contact Hours: 0 + 6 Prerequisites: ART A307. Registration Restrictions: Instructor permission. May be stacked with: ART A307. Special Fees. Special Note: May be repeated once for credit. Drawing from live models to explore advanced possibilities in design, composition and media. Emphasis on form and space using wet and dry media: charcoal, graphite, pen, brush, etc. Special emphasis on conceptual drawing concerns.			Contact Hours: 0 + 6 Prerequisites: ART A324. Registration Restrictions: Instructor permission. Special Fees. Special Note: May be repeated once for credit. Investigates advanced level techniques and conceptual approaches to traditional and digital photography. Encourages exploration of diverse approaches in photography.		
<b>ART A409</b>	<b>Advanced Metalsmithing and Jewelry</b>	<b>3 CR</b>	<b>ART A452</b>	<b>Advanced Graphic Design</b>	<b>3 CR</b>
Contact Hours: 0 + 6 Prerequisites: ART A309. Registration Restrictions: Instructor permission. May be stacked with: ART A209 and A309. Special Fees. Special Note: May be repeated once for credit. Further investigation of advanced techniques, tools, and materials and more advanced design principles. Special emphasis on holloware and forging and understanding of these traditional techniques in a historical context.			Contact Hours: 0 + 6 Prerequisites: ART A352. Registration Restrictions: Instructor permission. May be stacked with: ART A352. Special Fees. Special Note: May be once repeated for credit. Applied, creative and collaborative projects in graphic design.		
<b>ART A411</b>	<b>Advanced Sculpture</b>	<b>3 CR</b>	<b>ART A453</b>	<b>Illustration II</b>	<b>3 CR</b>
Contact Hours: 0 + 6 Prerequisites: ART A311. Registration Restrictions: Instructor permission. May be stacked with: ART A211 and A311. Special Fees. Special Note: May be repeated once for credit. Exploration of concepts and processes emphasizing aesthetics and history of contemporary sculpture. Continued development of construction skills with access to more advanced machines, tools, and welding equipment.			Contact Hours: 0 + 6 Prerequisites: ART A353. Registration Restrictions: Instructor permission. May be stacked with: ART A353. Special Fees. Special Note: May be repeated once for credit. Applied problems in advanced illustration.		
			<b>ART A456</b>	<b>3-D Digital Animation</b>	<b>3 CR</b>
			Contact Hours: 0 + 6 Prerequisites: ART A357. Registration Restrictions: Instructor permission. Special Fees. Studio course in computer animation: geometric modeling, motion specification, lighting, texture mapping, rendering, compositing, using production techniques and systems for computer-synthesized animation.		

<b>ART A471</b>	<b>Advanced Surface Design</b>	<b>3 CR</b>
Contact Hours: 0 + 6 Prerequisites: ART A371. Registration Restrictions: Instructor permission. May be stacked with: ART A271 and A371. Special Note: May be repeated once for credit. Development and refinement of individual problems in resist-dyeing using fluid, bound and print/transfer techniques.		
<b>ART A472</b>	<b>Advanced Fiber Structures</b>	<b>3 CR</b>
Contact Hours: 0 + 6 Prerequisites: ART A372. Registration Restrictions: Instructor permission. May be stacked with: ART A272 and ART A372. Special Fees. Special Note: May be repeated once for credit. Refinement of fiber processes with an emphasis on structural forms, materials, approaches, scale relationships and installations.		
<b>ART A473</b>	<b>Advanced Woven Forms</b>	<b>3 CR</b>
Contact Hours: 0 + 6 Prerequisites: ART A373. Registration Restrictions: Instructor permission. May be stacked with: ART A273 and A373. Special Fees. Special Note: May be repeated once for credit with substantive change in media or emphasis. Further development of advanced loom weaving techniques and refinement of personal imagery and problems related to contemporary approaches to fiber art.		
<b>ART A490</b>	<b>Selected Topics in Studio Art</b>	<b>3 CR</b>
Contact Hours: 0 + 6 Registration Restrictions: Instructor permission and 6 credits of upper division coursework in same studio discipline. May be stacked with: ART A390. Special Fees. Special Note: Prerequisites may vary with the different studio topics. May be repeated for credit in different studio topics for a maximum of 9 credits. Selected topics in studio art allowing for advanced concentrated study in a specific area.		
<b>ART A491</b>	<b>Senior Seminar</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ART A262 and PHIL A401. Registration Restrictions: Instructor permission, Senior status, and completion of GER Tier 1 (basic college-level skills) courses. Course Attributes: UAA GER Integrative Capstone. Special Fees. Special Note: Offered fall semester only. Lectures, discussions, workshops and projects integrating the knowledge of professional and technical practices for the artist. Develops effective communication skills to be a practicing artist. Demonstrates the necessary art historical, aesthetic, and critical tools to resolve and assess creative problem solving approaches.		
<b>ART A492</b>	<b>Art History Seminar</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ART A261 or ART A262 or ART A360. Registration Restrictions: Instructor permission. Special Fees. Special Note: May be repeated 3 times for credit in different topics for a maximum of 12 credits. Seminar in art history.		
<b>ART A495</b>	<b>Practicum</b>	<b>1-3 CR</b>
Contact Hours: 0 + 2-6 Registration Restrictions: Instructor permission and a minimum of 3 credits of 400-level coursework in selected content area and approval of area coordinator. Grade Mode: Pass/No Pass. Special Note: A total of 6 credits may be applied to an art degree. Management and operation of art studio for advanced student seeking an art career. Gain hands-on skills in organization of materials and the physical environment. Some working supervision of students.		
<b>ART A498</b>	<b>Individual Research</b>	<b>1-3 CR</b>
Contact Hours: 0 + 2-6 Registration Restrictions: Instructor permission and minimum of 6 credits upper division studio coursework in selected studio area and approval of area coordinator. Special Fees. Special Note: A total of 6 credits may be applied toward an Art degree. Individual art research focusing on professional development, conceptual growth and awareness, critical thinking, and advanced technical proficiency in any of the major disciplines.		

<b>ART A499</b>	<b>Thesis</b>	<b>3 CR</b>
Contact Hours: 0 + 6 Prerequisites: ART A491. Registration Restrictions: Declared major in BFA in Art and approval of BFA Committee. Grade Mode: Pass/No Pass. Student will produce and exhibit a body of work based on an approved thesis proposal. Exhibition of work will be in designated group show.		

## ASL - American Sign Language

*Offered through the College of Arts and Sciences*

*Administration/Humanities Building (ADM), Suite 287, 786-4030*

*[www.uaa.alaska.edu/languages](http://www.uaa.alaska.edu/languages)*

<b>ASL A101</b>	<b>Elementary American Sign Language I</b>	<b>4 CR</b>
Contact Hours: 4 + 0 Course Attributes: UAA GER Humanities Requirement. Special Fees.		

Introductory course for students with no previous knowledge of ASL. Develops receptive and expressive signing skills in ASL for effective communication at the elementary level. Students gain understanding of basic cross-cultural perspectives. Course conducted in American Sign Language.

<b>ASL A102</b>	<b>Elementary American Sign Language II</b>	<b>4 CR</b>
Contact Hours: 4 + 0 Prerequisites: ASL A101. Course Attributes: UAA GER Humanities Requirement. Special Fees.		

Continuation of introductory course. Further develops elementary receptive and expressive signing skills in ASL for effective communication. Enhances appreciation of cross-cultural perspectives. Course conducted in American Sign Language.

<b>ASL A201</b>	<b>Intermediate American Sign Language I</b>	<b>4 CR</b>
Contact Hours: 4 + 0 Prerequisites: ASL A102. Course Attributes: UAA GER Humanities Requirement. Special Fees.		

Intermediate course for students with basic knowledge of ASL. Enhances receptive and expressive signing skills for effective communication at the intermediate level. Students critically examine diverse cultural perspectives. Course conducted in American Sign Language.

<b>ASL A202</b>	<b>Intermediate American Sign Language II</b>	<b>4 CR</b>
Contact Hours: 4 + 0 Prerequisites: ASL A201. Course Attributes: UAA GER Humanities Requirement. Special Fees.		

Continuation of first semester in intermediate ASL. Further develops receptive and expressive signing proficiency for effective communication and in preparation for advanced study of ASL. Students interpret diverse cultural perspectives. Course conducted in American Sign Language.

## ASTR - Astronomy

*Offered through the College of Arts and Sciences*

*ConocoPhillips Integrated Sciences Building (CPSB), Room 101, 786-1238*

*<http://salt.uaa.alaska.edu>*

<b>ASTR A103</b>	<b>Solar System Astronomy</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: High school algebra and trigonometry or equivalent. Corequisite: ASTR A103L. Course Attributes: UAA GER Natural Sciences Requirement. Special Fees.		

Introduction to solar system astronomy; emphasis on most recent results from space research. History of astronomy, instruments, planetary motion, physical properties of planets, satellites, comets, and solar system evolution.

<b>ASTR A103L</b>	<b>Solar System Astronomy Laboratory</b>	<b>1 CR</b>
Contact Hours: 0 + 3 Registration Restrictions: High school algebra and trigonometry or equivalent. Corequisite: ASTR A103. Course Attributes: UAA GER Natural Sciences Lab Only. Special Fees.		

Introductory astronomy laboratory with experiments in basic observational methods and data analysis applicable to the study of the solar system.

## Course Descriptions

### ASTR A104 Stars, Galaxies and Cosmology 3 CR

Contact Hours: 3 + 0

Registration Restrictions: High school algebra and trigonometry or equivalent.

Corequisite: ASTR A104L.

Course Attributes: UAA GER Natural Sciences Requirement.

Special Fees.

Introduction to solar, stellar, galactic, extragalactic astronomy. Stars, clusters, galaxies, stellar evolution, the universe as a whole, and cosmology.

### ASTR A104L Stars, Galaxies and Cosmology Laboratory 1 CR

Contact Hours: 0 + 3

Registration Restrictions: High school algebra and trigonometry or equivalent.

Corequisite: ASTR A104.

Course Attributes: UAA GER Natural Sciences Lab Only.

Special Fees.

Introductory astronomy laboratory with experiments in basic observational methods and data analysis applicable to the study of the Sun, stellar, galactic, and extragalactic astronomy.

### ASTR A365 Astrobiology 3 CR

Contact Hours: 3 + 0

Prerequisites: BIOL A115 and [PHYS A123 or PHYS A211].

Registration Restrictions: Junior standing; completion of all GER Tier 1 (basic college-level skills) courses.

Crosslisted with: BIOL A365.

Course Attributes: UAA GER Integrative Capstone.

Special Fees.

A comprehensive examination of the possibility of the existence of life (microbial and advanced) outside of the Earth, the probability of discovery of extraterrestrial life (methods of planet detection, chemical signatures of microbial life, and contact with advanced life), and the scientific and cultural implications of such a discovery. Includes the study of star and planet formation rates, habitability zones, origin of life, evolution, and formation of intelligence.

## AT - Aviation Technology

*Offered through the Community & Technical College*

*Aviation Complex (AVNC), 2811 Merrill Field Drive, 786-7200*

*[www.uaa.alaska.edu/ctc/programs/aviation](http://www.uaa.alaska.edu/ctc/programs/aviation)*

### AT A053 Preventive Maintenance for Pilots and Owners 1-4 CR

Contact Hours: 0.5-2 + 2-8

Grade Mode: Pass/No Pass.

Special Fees.

For pilots/owners to gain knowledge and experience in items of aircraft and engine maintenance that they may legally perform. Beneficial to people who intend to buy airplanes.

### AT A272 Aircraft Covering and Finishing 4 CR

Contact Hours: 2 + 6

Grade Mode: Pass/No Pass.

Special Fees.

Identification and application of aircraft fabrics and finishing materials. Approximately 80 percent of class time spent in lab. Students inspect, test, and repair aircraft fabrics, install fabric, and apply appropriate finishing materials to aircraft structures, wings, and flight control surfaces.

### AT A281 Aviation Maintenance: Airframe and Powerplant Mechanic 3 CR

Contact Hours: 2 + 2

Registration Restrictions: Approved FAA Airman Certificate and/or Rating Application FAA Form 8610-2.

Provides advanced work in aviation maintenance records; expands on principles of airframe materials, systems and procedures; and explores powerplant operations and troubleshooting.

### AT A420 Air Transportation System 3 CR

Contact Hours: 3 + 0

Registration Restrictions: Upper Division Standing

Evaluates historical development and analyzes selected contemporary issues, problems, and trends facing the air transportation industry. Includes regulators and associations, the makeup of commercial and general aviation air transportation, and international aviation.

## ATA - Aviation Administration/Management

*Offered through the Community & Technical College*

*Aviation Complex (AVNC), 2811 Merrill Field Drive, 786-7200*

*[www.uaa.alaska.edu/aviation](http://www.uaa.alaska.edu/aviation)*

### ATA A102 Introduction to Aviation Technology 3 CR

Contact Hours: 3 + 0

Introduces all aspects of the aviation transportation industry, including general aviation, airlines, airports, aircraft manufacturing, and government organizations. Emphasizes career opportunities and career paths, certification and job qualifications, concepts and responsibilities of an aviation professional, and self-assessment.

### ATA A132 History of Aviation 3 CR

Contact Hours: 3 + 0

Traces aviation history with particular emphasis on manned-powered flight. Emphasizes the Golden Age of Flight (1900-1945) and the Jet Age (1945-present).

### ATA A133 Aviation Law and Regulations 3 CR

Contact Hours: 3 + 0

Overviews the U.S. legal system, origin of laws (national and international) influencing aviation, case studies of aviation litigation, and organization, authority, responsibility, and/or functions of the government or non-government entities that regulate or influence modern aviation.

### ATA A134 Principles of Aviation Administration 3 CR

Contact Hours: 3 + 0

Introduces business administration in general with an aviation focus. Emphasizes the theories of corporate organization and management. Examines trends in aviation administration.

### ATA A233 Aviation Safety 3 CR

Contact Hours: 3 + 0

Surveys aviation safety to identify primary causes of aviation accidents. Introduces the process of developing and evaluating safety programs. Examines the roles of the National Transportation Safety Board, other agencies, and future concepts in aviation safety.

### ATA A290 Selected Topics in Aviation Technology 1-6 CR

Contact Hours: 0-6 + 0-12

Registration Restrictions: Department permission required.

Provides theoretical and/or experiential learning in all areas of Aviation Technology (aviation maintenance, professional piloting, aviation administration, and air traffic control). Specific course content is determined by current industry trends and student needs. Emphasizes identification, summarization, and application of current technical information by theoretical and/or experiential learning.

### ATA A295 Aviation Internship I 1-3 CR

Contact Hours: 0 + 5-15

Registration Restrictions: Grade of C or better in 12 credits of Aviation Technology-related classes. Department permission required. Proof of accident insurance required.

Grade Mode: Pass/No Pass.

Special Note: Open entry/Open exit. Students must apply to the Aviation Technology Division to coordinate placement prior to course enrollment.

Provides generalized aviation-related work experiences for the purpose of introducing students to the aviation industry. Students are supervised by aviation industry professionals and program faculty.

### ATA A331 Human Factors in Aviation 3 CR

Contact Hours: 3 + 0

Registration Restrictions: AAS in aviation field or aviation-related experience.

Covers the following aspects of human factors: human error, fatigue, body rhythms and sleep, fitness and performance, vision and visual illusions, motivation and speech, attitudes and persuasion, training and training devices, documentation, displays and controls, space and layout, the aircraft cabin and its human payload.

### ATA A335 Airport Operations 3 CR

Contact Hours: 3 + 0

Prerequisites: ATA A102 and ATA A134.

Registration Restrictions: Junior standing

Examines the management and operation of civil airports. Emphasizes master planning, Federal Aviation Regulations dealing with airport operations, environmental issues, land use planning, airport capacity delay and access factors, economics impacts, financial analyses and budgeting systems, security, liability, maintenance, professional qualification, and public relations.

<b>ATA A336</b>	<b>Air Service Operations</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ATA A102 and ATA A134. Registration Restrictions: Junior standing Assesses functions of air service operations. Analyzes organization, financing, revenues and expenses, construction, expansion, safety, and relations with local agencies, including airport management.		
<b>ATA A337</b>	<b>Airline Operations</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ATA A102 and ATA A134. Analyzes airline organization and management, including classifications, management methods, governmental relationships, and financial positions. Examines airline operations, market research, demand determination, and effects of FAA regulations.		
<b>ATA A415</b>	<b>Company Resource Management</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ATA A331. Examines Company Resource Management (CRM) principles and programs in various aviation employment settings, such as piloting, air traffic control, management, and aviation maintenance. Examines how to evaluate human perceptions and the decision-making process in the aviation environment to develop CRM training programs applicable in various aviation employment settings.		
<b>ATA A425</b>	<b>Civil Aviation Security</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Aviation-related work experience or training. Instructor approval. Analyzes applicable civil aviation transportation security regulations and policy; assesses security risks and formulates potential intervention, prevention, or enhancement plans using current and evolving technology.		
<b>ATA A431</b>	<b>Aircraft Accident Investigation</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ATA A233 and ATA A331. Provides a comparative examination of elements and issues used in a field and laboratory investigation of an aircraft accident. Focuses on the application of relevant course material to research, discover, and analyze facts used to determine the probable cause of an aircraft accident and develop corrective action to prevent recurrence.		
<b>ATA A490</b>	<b>Advanced Topics in Aviation Technology</b>	<b>1-6 CR</b>
Contact Hours: 0-6 + 0-12 Registration Restrictions: Department permission required. Special Note: A maximum of 6 credits may be applied toward the BSAT degree. May be repeated for credit under different topic. Provides advanced theoretical and/or experiential learning in all areas of Aviation Technology (aviation maintenance, professional piloting, aviation administration, and air traffic control). Specific course content is determined by current industry trends and student needs. Emphasizes the following applications to current technical information: (1) analysis, (2) evaluation, and (3) synthesis.		
<b>ATA A492</b>	<b>Air Transportation System Seminar</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: BA A488. Registration Restrictions: Completion of GER Tier 1 (basic college-level skills) courses. Junior standing and Division approval required. Course Attributes: UAA GER Integrative Capstone. Analyzes and evaluates current events, issues, globalization, and emerging technologies in the air transportation industry, emphasizing present and future implications for the industry. Integrates technical, business, and general education knowledge to complete research and project assignments.		
<b>ATA A495</b>	<b>Aviation Internship II</b>	<b>1-3 CR</b>
Contact Hours: 0 + 5-15 Registration Restrictions: Minimum grade of C required in 12 credits of Aviation Technology-related classes. Department permission required. Proof of accident insurance required. Junior standing required. Grade Mode: Pass/No Pass. Special Note: Open entry/Open exit. Students must apply to the Aviation Technology Division to coordinate placement prior to course enrollment. Provides specialized aviation-related work experiences pertinent to educational program and future employment objectives. Overseen by aviation industry professional and program faculty. Complete a major industry project specific to student's area of scholastic preparation.		

## ATC - Air Traffic Control

*Offered through the Community & Technical College  
Aviation Complex (AVNC), 2811 Merrill Field Drive, 786-7200  
[www.uaa.alaska.edu/aviation](http://www.uaa.alaska.edu/aviation)*

<b>ATC A143</b>	<b>ATC Regulations</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Introduces Federal Aviation Regulations governing the Air Traffic Control System and the role of air traffic control specialists within the federal system.		
<b>ATC A144</b>	<b>ATC Flight Procedures</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Special Fees: Special Note: One hour in Flight Training Device required. Presents types of navigation aids and their operational characteristics. Introduces navigation tools and references, and their utilization.		
<b>ATC A147</b>	<b>Pilot/Controller Techniques</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ATC A143. Examines methods of airport operations, as well as aeronautical lighting and other airport visual aids, such as airport markings and signs. Includes discussion of varying techniques used by pilots and controllers in all airspace classifications, as well as the various levels of air traffic control ranging from uncontrolled airports to highly complex international airports and the services available to pilots.		
<b>ATC A240</b>	<b>Operations in Flight Service Station</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ATC A143 and ATP A235. Examines fundamentals of weather observation, use of FAA publications in flight planning, phraseologies, and radio frequencies used in air-ground communications. Presents decoding of civil Notice to Airmen (NOTAMS) and operating positions in Flight Service Stations.		
<b>ATC A241</b>	<b>Control Tower Operations</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ATC A143 and ATC A147. Explains operating techniques of ATC airport facilities in visual and instrument conditions. Includes operations of airport lighting systems, proper phraseology, separation requirements, control techniques and emergency actions.		
<b>ATC A241L</b>	<b>Control Tower Operations Lab</b>	<b>1 CR</b>
Contact Hours: 0 + 2 Prerequisites: (ATC A241 or concurrent enrollment). Grade Mode: Pass/No Pass. Special Fees: Employs hands-on time in the control tower simulator. Emphasizes real-life ATC situations to develop techniques for the manipulation of air traffic during taxi, takeoff, and landing.		
<b>ATC A242</b>	<b>ATC Terminal Radar Procedures</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ATC A143 and ATC A144 and ATP A235. Explores RADAR theory fundamentals and systems operation in air traffic control. Examines procedures of instrument traffic control in the terminal radar environment.		
<b>ATC A242L</b>	<b>ATC Terminal Radar Procedures Lab</b>	<b>1 CR</b>
Contact Hours: 0 + 2 Prerequisites: (ATC A242 or concurrent enrollment). Grade Mode: Pass/No Pass. Special Fees: Employs hands-on time in radar laboratory simulators to develop techniques for the separation, vectoring and speed control of air traffic in a terminal radar environment.		
<b>ATC A243</b>	<b>ATC Enroute Procedures</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ATC A242. Explores procedures of instrument traffic control in RADAR and non-RADAR environments. Emphasizes longitudinal, vertical, and lateral separation of air traffic.		
<b>ATC A243L</b>	<b>ATC Enroute Procedures Lab</b>	<b>1 CR</b>
Contact Hours: 0 + 2 Prerequisites: (ATC A243 or concurrent enrollment). Grade Mode: Pass/No Pass. Special Fees: Explores techniques of longitudinal, vertical, and lateral separation of air traffic using lab scenarios designed to develop routine problem solving processes to adapt the student controller to real-life ATC situations.		

## Course Descriptions

### ATC A250 Comprehensive Air Traffic Control Overview 2 CR

Contact Hours: 2 + 0

Prerequisites: ATC A241 with minimum grade of C and ATC A242 with minimum grade of C and ATC A243 with minimum grade of C and ATP A235 with minimum grade of C.

Integrates concepts from all previous air traffic control classes, and examines the relationship between course material and occupational application. Contrasts academic and vocational use of knowledge, and prepares students to apply knowledge in the vocational setting.

### ATC A325 Tools for Weather Briefing 3 CR

Contact Hours: 3 + 0

Prerequisites: ATP A235.

Covers the operation and assessment of observation from three major weather sensors (Doppler RADAR, Weather Satellites, and Automated Surface Observation System), as well as analysis of weather charts and messages. Focuses on determining the state of the atmosphere, formulating trends, and their cause and effect. Qualifying Air Traffic Control majors may receive Weather Observer Certification upon successful completion of Federal Aviation Administration knowledge exams.

### ATC A355 Integrated Radar Techniques 3 CR

Contact Hours: 2 + 2

Prerequisites: ATC A242 with minimum grade of C and ATC A242L with minimum grade of C and ATC A243 with minimum grade of C and ATC A243L with minimum grade of C.

Special Fees.

Contrasts different radar specialties, including tracon, en route, and military. Examines relationship between facilities and focuses on potential problems where responsibilities overlap. Compares military and civilian traffic techniques, and dynamics of adapting to changing flow control standards.

### ATC A440 Facility Operation and Administration 3 CR

Contact Hours: 3 + 0

Prerequisites: BA A361 and BA A461.

Emphasizes effective operation and administration of air traffic service (ATS) facilities and conflict resolution between FAA instructions and the terms of a labor union contract. Evaluates current issues and events, and their potential impact on the National Airspace System.

## ATP - Aviation - Professional Piloting

*Offered through the Community & Technical College*

*Aviation Complex (AVNC), 2811 Merrill Field Drive, 786-7200*

*[www.uaa.alaska.edu/aviation](http://www.uaa.alaska.edu/aviation)*

### ATP A100 Private Pilot Ground School 3 CR

Contact Hours: 3 + 0

Special Fees.

Special Note: Two hours in Flight Training Device required.

Prepares students for FAA Private Pilot Knowledge Test. Includes basic aerodynamics, aircraft engine operation and flight instruments, navigation, weather information and dissemination services. Covers FAA regulations, the Aeronautical Information Manual, radio communication, and navigation.

### ATP A101 Pre-Professional Flying 2 CR

Contact Hours: 1 + 2

Registration Restrictions: ATP A100 or concurrent enrollment, or passing score on Private Pilot Knowledge Test. Department approval required. FAA Student Pilot/Class II Medical Certificate required.

Special Fees.

Special Note: Open-entry/Open-exit. Three hours in Flight Training Device required.

Provides beginning flight instruction for students intending to become professional pilots.

### ATP A104 Flying Alaska Bush 3 CR

Contact Hours: 3 + 0

Registration Restrictions: Private Pilot Certificate or higher rating.

Provides specialized discussion concerning unique flying conditions faced by Alaskan pilots. Covers basic aerodynamics, mountain flying, skis, floats, wheels, judgment of unimproved landing areas, characteristics of Alaskan weather, external loads, and emergency field maintenance.

### ATP A116 Instrument Ground School 3 CR

Contact Hours: 3 + 0

Registration Restrictions: FAA Private Pilot Certificate or equivalent.

Special Fees.

Special Note: Two hours in a Flight Training Device (FTD) is required.

Provides preparation for the Federal Aviation Administration (FAA)

Instrument Pilot Knowledge Test. Includes attitude instrument flying, air traffic control and navigation facilities, pilot responsibilities, Instrument Flight Rules (IFR), en route and approach navigation charts, airspace and airway route system.

### ATP A126 Instrument Flying 2 CR

Contact Hours: 1 + 2

Prerequisites: ATP A101 and (ATP A116 or concurrent enrollment).

Registration Restrictions: Meet course prerequisites or Private Pilot Certificate.

Departmental approval required.

Special Fees.

Special Note: Open-entry/Open-exit. Twelve hours in Flight Training Devices required.

Fulfills FAA flight training requirements for an instrument airplane rating under FAR Part 141.

### ATP A200 Commercial Ground School 3 CR

Contact Hours: 3 + 0

Registration Restrictions: FAA Instrument Rating or equivalent.

Provides preparation for the Federal Aviation Administration (FAA)

Commercial Pilot Knowledge Test. Includes advanced studies of Private Pilot and Instrument Pilot topics, high performance and complex aircraft, commercial flight maneuvers, and commercial Federal Aviation Regulations (FARs).

### ATP A218 Commercial Flying I 1.5 CR

Contact Hours: 1 + 1

Prerequisites: ATP A126 and (ATP A200 or concurrent enrollment).

Registration Restrictions: Private Pilot Certificate. Department approval required.

Special Fees.

Special Note: Open-entry/Open-exit.

Provides flight training to review basic private pilot maneuvers and to introduce the advanced flight maneuvers required of a commercial pilot.

### ATP A219 Commercial Flying II 1.5 CR

Contact Hours: 1 + 1

Prerequisites: ATP A218.

Registration Restrictions: Department approval required.

Special Fees.

Special Note: Open-entry/Open-exit.

Provides flight training to build proficiency and experience in cross-country flying and night operations. Includes introduction to complex airplanes.

### ATP A220 Commercial Flying III 2 CR

Contact Hours: 1 + 2

Prerequisites: ATP A219.

Registration Restrictions: Department approval required. Concurrent enrollment in ATP A305 is required for BSAT Majors.

Special Fees.

Special Note: Open-entry/Open-exit.

Develops proficiency required to pass the FAA Commercial Pilot Practical Flight Test.

### ATP A231 Search, Survival, and Rescue 3 CR

Contact Hours: 3 + 0

Prerequisites: ATA A233.

Deals with situations that develop from lost or downed aircraft; survey of principles of survival in all types of climates, with emphasis on Arctic environments. Organization for search and rescue with emphasis on systems and operational methods used in Alaska.

### ATP A232 Advanced Aviation Navigation 3 CR

Contact Hours: 3 + 0

Prerequisites: ATP A100.

Examines earth's surface and mapping methods, Low, High, and International en route navigation charts and approach plates; examines advanced technology navigation and flight display systems, and the theory and operation of GPS navigation equipment; looks at future trends in aeronautical navigation.

### ATP A235 Elements of Weather 3 CR

Contact Hours: 3 + 0

Defines weather elements and methods of measurement: composition of atmosphere, description of atmospheric processes and their movement, general circulation of atmosphere, wind and secondary circulation, weather reports and forecasts, and weather satellites.

### ATP A300 CFI Ground School 3 CR

Contact Hours: 3 + 0

Registration Restrictions: FAA Commercial Pilot Certificate with Instrument Rating or equivalent.

Prepares students for the Federal Aviation Administration (FAA) Certified Flight Instructor Knowledge Test. Includes principles of teaching and learning, analysis of student motivation, flight training syllabus, and the flight instructor's role and responsibilities. Covers performance and analysis of flight training maneuvers, advanced aerodynamics, fundamentals of instrument flight, flight training publications, and Federal Aviation Regulations (FARs).



<b>ATP A301</b>	<b>CFI Flying</b>	<b>2 CR</b>
Contact Hours: 1 + 2 Prerequisites: ATP A220 and (ATP A300 or concurrent enrollment). Registration Restrictions: Must hold a Commercial Pilot Certificate. Department approval required. Special Fees. Special Note: Open-entry/Open-exit. One hour in Flight Training Device required. Fulfills FAA flight training requirements for obtaining a Certified Flight Instructor Certificate under FAR Part 141.		
<b>ATP A305</b>	<b>Additional Aircraft Rating</b>	<b>2 CR</b>
Contact Hours: 1 + 2 Prerequisites: (ATP A220 or concurrent enrollment). Registration Restrictions: Department approval required. Special Note: Open entry/Open exit. Provides flight instruction for Professional Piloting students seeking additional ratings on their pilot certificates, e.g. Float, Multi-engine, or Type Rating.		
<b>ATP A332</b>	<b>Transport Aircraft Systems</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ATP A200. Describes and examines the components of transport aircraft systems, their design, performance, capabilities, limitations, interrelationships, and contribution to the operation, safety, efficiency and economy of the aircraft.		
<b>ATP A400</b>	<b>ATP Ground School</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Must hold a Commercial Pilot Certificate and comply with FAR Part 61.159. Evaluates the flight environment to justify the Go/No Go decision. Includes TERPS, ATC procedures, and attitude instrument flying. Covers CR series computer, cross-country flight planning, airplane performance, weight and balance, interpreting high-altitude weather charts and forecasts, and applicable FARs.		
<b>ATP A401</b>	<b>ATP Flying</b>	<b>2 CR</b>
Contact Hours: 1 + 2 Prerequisites: (ATP A400 or concurrent enrollment). Registration Restrictions: Must hold a Commercial Pilot Certificate and comply with FAR Part 61.159. Department approval required. Special Fees. Special Note: Open entry/Open exit. Three hours in Flight Training Device required. Fulfills FAA Flight training requirement for obtaining an Airline Transport Pilot Certificate under FAR Part 141.		
<b>ATP A405</b>	<b>Additional CFI Rating</b>	<b>2 CR</b>
Contact Hours: 1 + 2 Registration Restrictions: Certified Flight Instructor Certificate required. Department approval required. Special Note: Open-entry/Open-exit. Provides flight instruction for Professional Piloting students seeking additional ratings on their Flight Instructor Certificate, e.g., Instrument and/or Multi-engine.		
<b>ATP A432</b>	<b>Turbine Airplane Transition</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ATP A332. Special Fees. Special Note: Course will include Cessna Caravan Level B Simulator time and material covered is specific to the Cessna Caravan (CE-208) airplane. Facilitates transition to turbine powered airplanes using a CE-208 Simulator; describes and analyzes the design, theory, and operation of turbine engines to include associated auxiliary systems and appliances; evaluates system malfunctions and formulates corrective action/s.		

## BA - Business Administration

*Offered through the College of Business & Public Policy  
Edward & Cathryn Rasmuson Hall (RH), Room 203, 786-4100  
[www.cbpp.uaa.alaska.edu/busadmin.asp](http://www.cbpp.uaa.alaska.edu/busadmin.asp)*

Students taking any ACCT, BA, CIS, ECON, LGOP, LOG or PADM course will be charged a single lab fee of \$25 for the semester. Applies to Elmendorf Air Force Base or Fort Richardson classes only when specifically noted on UAOnline. Does not apply to Chugiak-Eagle River classes.

<b>BA A131</b>	<b>Personal Finance</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Introduction to consumer finance. Surveys topics such as family budgeting, income tax fundamentals, consumer credit, home buying and financing, auto financing, insurance, investment fundamentals, estate planning, and retirement planning.		

<b>BA A151</b>	<b>Introduction to Business</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Course Attributes: UAA GER Social Sciences Requirement. Introduces students to the fundamentals of business. Explores strategies that allow companies to compete in today's interactive, global marketplace. Covers each of the functional areas of business: management, marketing, finance, and accounting. Students gain some valuable critical-thinking, problem-solving, team-building, and communication skills required in modern business environments.		
<b>BA A155</b>	<b>Personal Investments</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Introduces students to investment of personal income and how to define and reach their financial goals. Surveys topics such as stocks, bonds, mutual funds, banking, annuities, insurance, real estate, estate planning, and taxes.		
<b>BA A166</b>	<b>Small Business Management</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Business planning as key to successful small business management. Examines practical aspects of management for starting and operating a small businesses. Assists students in furthering their understanding of personal finance, business planning, marketing, production, and business finance.		
<b>BA A231</b>	<b>Fundamentals of Supervision</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Introduces students to the supervisor's role in organizations. Emphasizes development of the insights and skills necessary to achieve organizational objectives through others by effectively using the managerial functions of planning, organizing, leading, and controlling. Offers practical experience in decision making in contemporary and relevant situations facing today's supervisors.		
<b>BA A233</b>	<b>Survey of Finance</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: [ACCT A101 or ACCT A102] and MATH A105. Surveys the discipline of finance. Topics covered are: financial markets, financial institutions, financial statements analysis, time value of money, capital budgeting, and methods of short-term and long-term financing.		
<b>BA A241</b>	<b>Business Law I</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Crosslisted with: JUST A241. Introduction to business law. Covers topics such as the American legal system, dispute resolution, constitutional and government regulation of business, torts, contract laws and theory, international law, and business ethics.		
<b>BA A242</b>	<b>Business Law II</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: BA A241 or JUST A241. Crosslisted with: JUST A242. Continuation of Business Law I. Covers topics such as sales and leases, negotiables, debtor-creditor relations, agency, business organizations, and property protection.		
<b>BA A260</b>	<b>Marketing Practices</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: BA A151. Examines the tools, techniques, and principles of marketing and how to apply them. Identifies the significance of connecting with customers. Examines and identifies market factors which create the greatest customer satisfaction possible in the highly competitive environments of the 21st century.		
<b>BA A264</b>	<b>Personal Selling</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Designed for people with or without sales experience. Explores skills all individuals use to sell themselves, products, services, and ideas. Offers opportunities for students to practice selling skills that will help them become better communicators throughout life.		
<b>BA A273</b>	<b>Introduction to Statistics for Business and Economics</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: CIS A110 and [MATH A107 or MATH A172]. Special Note: Students may apply no more than 3 credits from BA A273 or STAT A252 toward graduation requirements for a baccalaureate degree. Introduction to statistics and probability with emphasis on the analysis of business and economic data. Includes descriptive statistics for univariate and bivariate data; elementary probability and sampling distributions; estimation of means, proportions, and simple regression coefficients. Students will be introduced to one or more computer packages for statistical data analysis.		

## Course Descriptions

### **BA A295 Internship in Business Administration 3 CR**

Contact Hours: 0 + 9

Prerequisites: ENGL A111 and [COMM A111 or COMM A235 or COMM A237 or COMM A241].

Registration Restrictions: Permission of Faculty Internship Coordinator; 2.75 GPA. MATH A105 or A107 recommended.

Grade Mode: Pass/No Pass.

Special Fees.

Special Note: May be repeated for credit, but only 3 credits will apply to meeting business administration degree requirements.

Integrates classroom study with planned and supervised work experience in the public and private sectors. Students are exposed to occupational work environment beyond the boundaries of the campus, enhancing self-confidence and career direction.

### **BA A300 Organizational Theory and Behavior 3 CR**

Contact Hours: 3 + 0

Registration Restrictions: College of Business & Public Policy majors must be admitted to upper-division standing.

Centered on developing a working knowledge of the key theories that deal with human behavior in work settings. Content includes: individual differences, personality, attitudes, perception, attribution, and biases. Also includes the major theories of motivation and leadership, dynamics of group interaction, teams, social processes, diversity, organizational culture, and ethics.

### **BA A306 Real Estate Principles 3 CR**

Contact Hours: 3 + 0

Prerequisites: ACCT A201 with minimum grade of C and [BA A131 with minimum grade of C or BA A325 with minimum grade of C] and ECON A201 with minimum grade of C and ECON A202 with minimum grade of C and [MATH A107 with minimum grade of C or MATH A172 with minimum grade of C].

Registration Restrictions: College of Business and Public Policy majors must be admitted to upper-division standing.

Surveys real estate legal analysis, private and public restrictions on ownership, deeds, title examination, contracts, title closings, leases, brokerage, appraisal, property management, commercial and residential land uses, urban and regional economics, residential and commercial property financing, and mathematical mortgage analysis.

### **BA A315 Property Management and Marketing 3 CR**

Contact Hours: 3 + 0

Registration Restrictions: College of Business & Public Policy majors must be admitted to upper-division standing.

Surveys all aspects of property management and marketing. Topics covered are: residential management, shopping center management, office building management, leases, maintenance, landlord-tenant laws, real estate sales, and marketing.

### **BA A320 Real Estate Finance 3 CR**

Contact Hours: 3 + 0

Prerequisites: ACCT A201 with minimum grade of C and [BA A306 with minimum grade of C or BA A325 with minimum grade of C] and ECON A201 with minimum grade of C and ECON A202 with minimum grade of C and [MATH A107 with minimum grade of C or MATH A172 with minimum grade of C].

Registration Restrictions: College of Business and Public Policy majors must be admitted to upper-division standing.

Surveys all aspects of real estate finance. Topics covered are interest rates, mortgages, federal housing policies, secondary mortgage markets, leverage and property valuation, taxation, and real estate in a portfolio context.

### **BA A325 Corporate Finance 3 CR**

Contact Hours: 3 + 0

Prerequisites: ACCT A202 and BA A273 and ECON A202.

Registration Restrictions: College of Business & Public Policy majors must be admitted to upper-division standing.

Surveys the practice of corporate finance. Topics covered are: financial statements analysis, valuation of securities, capital budgeting, risk and return, cost of capital, capital structure, and working capital management.

### **BA A343 Principles of Marketing 3 CR**

Contact Hours: 3 + 0

Registration Restrictions: College of Business & Public Policy majors must be admitted to upper-division standing.

Examines the present role and evolving scope of marketing in organizations and the global economy. Provides a comprehensive delineation of the key marketing terms, concepts, and decision paradigms; offers an overview of the requisite steps, strategic considerations, and essential elements involved in planning, implementing, and evaluating marketing activities and campaigns.

### **BA A361 Human Resource Management 3 CR**

Contact Hours: 3 + 0

Prerequisites: BA A300.

Registration Restrictions: College of Business & Public Policy majors must be admitted to upper-division standing.

Provides students with an overview of human resource management in today's globally competitive and continually changing environment. Students gain an increased understanding of the importance of good human resource management in the current marketplace and learn to view human resource issues from both the strategic and tactical perspectives.

### **BA A375 Statistics for Business and Economics 3 CR**

Contact Hours: 3 + 0

Prerequisites: BA A273 and MATH A272.

Registration Restrictions: College of Business & Public Policy majors must be admitted to upper-division standing.

Intermediate statistics and probability with emphasis on the analysis of business and economic data. Includes multivariate probability models; classic inferences for means, standard deviations, and proportions in one and two populations; analysis of variance; contingency tables; multiple regression and nonparametric statistics. Statistical computer packages are used extensively.

### **BA A377 Operations Management 3 CR**

Contact Hours: 3 + 0

Prerequisites: BA A273 and MATH A272.

Registration Restrictions: College of Business & Public Policy majors must be admitted to upper-division standing.

Introduces management of the operations/production system with an emphasis on quantitative analysis. Characteristics of systems, types of production and service systems, forecasting, planning and scheduling work, facility design and location, and selected topics in operations research will be covered.

### **BA A380 Investment Management 3 CR**

Contact Hours: 3 + 0

Prerequisites: BA A325.

Registration Restrictions: College of Business & Public Policy majors must be admitted to upper-division standing.

Introductory course in investment management covering valuations and techniques of investment in financial securities. Evaluates investment choices including: common stock, preferred stock, bonds, convertibles, mutual funds, closed end funds, hedge funds, and private equity.

### **BA A381 Consumer Behavior 3 CR**

Contact Hours: 3 + 0

Prerequisites: BA A343.

Registration Restrictions: College of Business & Public Policy majors must be admitted to upper-division standing.

Consumer-firm relationship analyzed through the application of concepts drawn from contemporary behavioral science to concrete business cases and practices. Relevant concepts from fields of cultural anthropology, sociology, and psychology applied to problems encountered in marketing to various consumer groups.

### **BA A385 Advanced Corporate Finance 3 CR**

Contact Hours: 3 + 0

Prerequisites: BA A325.

Registration Restrictions: College of Business & Public Policy majors must be admitted to upper-division standing.

Advanced course in corporate finance presenting analytical techniques and concepts. Includes multifactor asset pricing models, free cash flow and corporate valuation, capital budgeting risk analysis and real options, capital structure theory, mergers, and corporate bankruptcies.

### **BA A395 Property Management Internship 3 CR**

Contact Hours: 0 + 9

Registration Restrictions: Permission of faculty internship coordinator

Grade Mode: Pass/No Pass.

Special Fees.

Integrates classroom knowledge with supervised work experience in the property management and related real estate environment.

### **BA A420 Marketing Research 3 CR**

Contact Hours: 3 + 0

Prerequisites: BA A343 and [BA A375 or ECON A412 or ECON A429].

Registration Restrictions: College of Business & Public Policy majors must be admitted to upper-division standing.

Examines the marketing research function and its role in the managerial decision-making process. Course will include an overview of the marketing research process. Includes conducting primary and secondary data collection, analysis of statistical data, and preparing a written and oral research report.

<b>BA A426</b>	<b>Financial Institutions</b>	<b>3 CR</b>	<b>BA A460</b>	<b>Marketing Management</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: BA A325. Registration Restrictions: College of Business & Public Policy majors must be admitted to upper-division standing. Study of the functions, structures, delivery systems, efficiencies, risk managements, and performances of financial institutions including banks, saving and loan associations, credit unions, investment companies, pension funds, mutual funds, and endowments.			Contact Hours: 3 + 0 Prerequisites: BA A343. Registration Restrictions: College of Business and Public Policy majors must be admitted to upper-division standing. Analysis of product, price, promotion, and distribution decisions from a strategic marketing planning perspective. Emphasizes marketing decision models applied to organizations.		
<b>BA A427</b>	<b>International Finance</b>	<b>3 CR</b>	<b>BA A461</b>	<b>Negotiation and Conflict Management</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: BA A325. Registration Restrictions: College of Business & Public Policy majors must be admitted to upper-division standing. Covers foreign exchange determination and forecasting; foreign exchange, translation and transaction risks; hedging and speculation; international portfolio diversification and direct foreign investment; international acquisitions; and international taxation.			Contact Hours: 3 + 0 Registration Restrictions: College of Business & Public Policy majors must be admitted to upper-division standing. Provides students with a forum to develop and practice negotiation skills and offers opportunities to make positive changes in negotiation behavior and habits.		
<b>BA A431</b>	<b>Real Estate Appraisal</b>	<b>3 CR</b>	<b>BA A462</b>	<b>Strategic Management</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: BA A306. Registration Restrictions: College of Business & Public Policy majors must be admitted to upper-division standing. Surveys all aspects of the real estate appraisal. Topics covered are: appraisal process, real estate economics, property inspection, sales comparison approach, cost approach, income approach, reporting appraisal opinion, and the professional appraiser.			Contact Hours: 3 + 0 Prerequisites: BA A273 with minimum grade of C and BA A300 with minimum grade of C and BA A325 with minimum grade of C and BA A343 with minimum grade of C. Registration Restrictions: College of Business & Public Policy majors must be admitted to upper-division standing. Evaluation of external and internal environment to formulate a strategic plan that contributes to achieving above average returns. Analysis of theory and case studies to prepare students to carry out strategic decisions in the global environment.		
<b>BA A432</b>	<b>Real Estate Law</b>	<b>3 CR</b>	<b>BA A463</b>	<b>Promotion Management</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: BA A241 or JUST A241. Registration Restrictions: College of Business & Public Policy majors must be admitted to upper-division standing. Surveys all aspects of the real estate law. Topics covered are: legal system; scope of real property; types of ownership; real estate contracts; title and insurance; financing, closing and taxation; landlord and tenants; and environmental law and regulation.			Contact Hours: 3 + 0 Prerequisites: BA A343. Registration Restrictions: College of Business & Public Policy majors must be admitted to upper-division standing. Examines the concepts of advertising and other promotional tools. Focuses on the design, management, and implementation of promotional strategy.		
<b>BA A447</b>	<b>International Marketing</b>	<b>3 CR</b>	<b>BA A481</b>	<b>Applications in Management</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: BA A343. Registration Restrictions: College of Business & Public Policy majors must be admitted to upper-division standing. Emphasizes concepts of marketing strategy used to achieve competitive advantage in the global marketplace. Focuses on market planning, organizing, coordinating, and on the controlling functions of international marketing management.			Contact Hours: 3 + 0 Prerequisites: BA A300. Registration Restrictions: College of Business & Public Policy majors must be admitted to upper-division standing. An in-depth, hands-on examination of management topics and issues introduced in BA A300. Students are encouraged to develop their own management skills through case analysis, role playing, in-class exercises, and projects that require interaction with practicing managers.		
<b>BA A451</b>	<b>Advanced Investment Strategies</b>	<b>3 CR</b>	<b>BA A487</b>	<b>International Management</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: BA A380 with minimum grade of C. Registration Restrictions: College of Business & Public Policy majors must be admitted to upper-division standing. Advanced course in investment management covering problems and process of evaluating a particular stock. Discusses portfolio construction and management. Analyzes performance evaluation using fundamental, technical, and behavioral models and applies it to the portfolio project.			Contact Hours: 3 + 0 Prerequisites: BA A300 with minimum grade of C. Registration Restrictions: College of Business & Public Policy majors must be admitted to upper-division standing. Emphasizes business and management practices across cultures. Evaluates the skills that a global manager needs to succeed in an international context.		
<b>BA A452</b>	<b>Financial Derivatives</b>	<b>3 CR</b>	<b>BA A488</b>	<b>Environment of Business</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: BA A325. Registration Restrictions: College of Business & Public Policy majors must be admitted to upper-division standing. Advanced course in investment management on financial derivatives. Covers options, futures, options on futures, swap markets, and their use in managing interest rate risk and foreign exchange risk.			Contact Hours: 3 + 0 Major Restriction: Must be Accounting or Economics or Finance or Global Logistics Management or Global Log Supply Chain Management or Marketing or Management or Management Information System major. Registration Restrictions: College of Business & Public Policy majors must be admitted to upper-division standing. Examines the external context in which global businesses operate. Includes an assessment of the ethical, legal, political, and social issues that organizations face in a global environment.		
<b>BA A453</b>	<b>Bond Market Analysis</b>	<b>3 CR</b>	<b>BA A489</b>	<b>Entrepreneurship and New Business Planning</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: BA A325. Registration Restrictions: College of Business & Public Policy majors must be admitted to upper-division standing. Advanced course in investment management covering fixed income securities. Covers bond fundamentals, types of debt instruments, term structure of interest rates, interest rate risks and management, bond portfolio management, indexing, and performance evaluation.			Contact Hours: 3 + 0 Prerequisites: BA A462. Registration Restrictions: College of Business & Public Policy majors must be admitted to upper-division standing. Conceptualizing and planning a new business; entrepreneurship and innovation for new and established organizations; stages in business growth and implications for management. Students are required to work with a new or existing business and provide the needed studies and plans required to establish or expand an existing business.		
			<b>BA A490A</b>	<b>Current Topics in Business</b>	<b>1-6 CR</b>
			Contact Hours: 1-6 + 0 Registration Restrictions: College of Business and Public Policy majors must be admitted to upper-division standing. May be stacked with: BA A690. Special Note: May be repeated for credit with a change of subtitle up to a maximum of 6 credits. Explores current issues, techniques, and trends affecting business.		

## Course Descriptions

<b>BA A491A</b>	<b>Student Managed Portfolio</b>	<b>3 CR</b>	<b>BA A628</b>	<b>Executive Leadership</b>	<b>3 CR</b>
Contact Hours: 1 + 4 Prerequisites: BA A380 and (BA A451 or concurrent enrollment). Registration Restrictions: College of Business and Public Policy majors must be admitted to upper-division standing. Student managed investment portfolios provide students with an opportunity to conduct security analysis and make investment decisions in a realistic environment. The investment objective shall be to outperform the equity market on a risk-adjusted basis, as measured by a suitable benchmark.			Contact Hours: 3 + 0 Registration Restrictions: Admission to MBA Program or permission of instructor. Exploration of characteristics and practice of executive leadership, primarily through interaction with guest executives.		
<b>BA A491B</b>	<b>Institutional Money Management</b>	<b>3 CR</b>	<b>BA A629</b>	<b>Negotiation and Conflict Management</b>	<b>3 CR</b>
Contact Hours: 1 + 4 Prerequisites: BA A491A. Registration Restrictions: College of Business and Public Policy majors must be admitted to upper-division standing. Faculty permission required. Studies institutional aspects of money management such as Request for Proposal preparation, Securities and Exchange Commission requirements, client reporting, and custodial relationships. In addition, students will provide leadership to students enrolled in BA A491A.			Contact Hours: 3 + 0 Registration Restrictions: Admission to MBA Program or permission of instructor. Designed to present students with opportunity to improve their negotiating skills. It is oriented toward providing a forum conducive to practicing these skills and making positive changes in behavior and habits in order to facilitate their success.		
<b>BA A495</b>	<b>Advanced Internship in Business Administration</b>	<b>3 CR</b>	<b>BA A631</b>	<b>Business Environment Analysis</b>	<b>3 CR</b>
Contact Hours: 0 + 9 Registration Restrictions: College of Business & Public Policy majors must be admitted to upper-division standing; Permission of the BA Faculty Internship Coordinator; 2.75 GPA overall; 3.0 GPA in major. Grade Mode: Pass/No Pass. Special Fees. Special Note: May be repeated more than once for credit, but only 3 credits will apply to meeting business majors' degree requirements. Integrates classroom study with planned and supervised work experience in the public and private sectors. Students acquire essential practical skills by being exposed to occupational work environment beyond the boundaries of the campus, enhancing self-confidence and career direction. Students are expected to perform duties commensurate with entry-level management positions.			Contact Hours: 3 + 0 Prerequisites: ECON A602. Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Graduate standing. Introduction to the methodology of business environment scanning, analysis, and forecasting; survey of the current business environment. Impacts of globalization of competition and financial markets, technological change, changing political systems, regulation, demographics, social change, and other change factors on business. Examination of social responsibility, ethics, environmental protection and other accountability issues.		
<b>BA A601</b>	<b>Business Statistics and Data Analysis</b>	<b>3 CR</b>	<b>BA A632</b>	<b>Organizational Behavior and Foundations of Behavioral Science</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Graduate Standing. Data identification, collection, and analysis and presentation of results. Basic statistical tools and models for problem analysis and data-driven decision making are presented in the manager's role in the organization. Emphasis is on the appropriate selection, use and interpretation of statistical analysis for business decision making.			Contact Hours: 3 + 0 Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Graduate standing. A detailed interdisciplinary study of those organizational behavior and human resource factors that contribute centrally to the firm's success. Examines current and future developments regarding key concepts such as motivation, leadership, power and authority, organizational processes and culture, selections and placement, performance appraisal, compensation, and human development. Surveys the scientific foundations of organizational behavior, including research methods, attribution theory, social cognition, attitudes, emotion, and cooperation and competition in social groups.		
<b>BA A603</b>	<b>Fundamentals of Finance</b>	<b>3 CR</b>	<b>BA A633</b>	<b>Problem Formulation and Decision Analysis</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ACCT A601 and BA A601. Registration Restrictions: Graduate Standing. Special Note: This is a foundational course for MBA students who have not taken any course in finance at the baccalaureate level. Does not count towards MBA degree. Surveys the practice of corporate finance. Topics covered are: financial statements analysis, valuation of securities, capital budgeting, risk and return, cost of capital, capital structure, and working capital management.			Contact Hours: 3 + 0 Prerequisites: BA A601 and ECON A602. Registration Restrictions: Graduate standing. Identification and formulation of business problems with alternative approaches to modeling and analysis. Students will undertake data collection and utilize appropriate software tools for optimization, forecasting, and simulation of business processes. Focuses on formal quantitative modeling with strong recognition of the behavioral and political contexts of decision making in complex organizations.		
<b>BA A610</b>	<b>Business Intelligence and Analytics</b>	<b>3 CR</b>	<b>BA A634</b>	<b>Organizational Design and Development</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Graduate standing. Data identification, collection, analysis and presentation of results. Basic statistical tools and models for problem analysis and data-driven decision making are presented from the perspective of a manager. Emphasis is on the appropriate selection, use and interpretation of statistical analysis for business decision making. Computer software will be intensively used to analyze business datasets.			Contact Hours: 3 + 0 Prerequisites: BA A632. Registration Restrictions: Graduate standing. Explores factors, conditions, and practices that lead to creating and maintaining organizational success. Examines alternative methods of determining organizational effectiveness. Presents organizational design based on contingency theory perspective and examines major organizational dilemmas and dysfunctions. Surveys and applies critical tools available for organizational development.		
<b>BA A615</b>	<b>Real Estate Investment Analysis</b>	<b>3 CR</b>	<b>BA A635</b>	<b>Current Marketing Issues Seminar</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: BA A603. Registration Restrictions: Graduate standing Provides coverage of the analytical techniques for valuing real estate investments at the micro and macro levels. Covers primary and secondary mortgage markets and securitization of residential and commercial real estate mortgages.			Contact Hours: 3 + 0 Registration Restrictions: Graduate standing. Explores the origin, nature, and ramifications of current issues in marketing that are redefining the role and scope of applied marketing management practices in contemporary organizations. Discusses the major ongoing socio-cultural and technological issues and trends impacting marketing research, competitive strategies, product/service design, pricing, promotion, and distribution.		
<b>BA A617</b>	<b>Technology Management</b>	<b>3 CR</b>	<b>BA A636</b>	<b>Financial Decision Making</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Graduate standing. Crosslisted with: ESM A617. Issues and case studies of policy development, strategy, planning and management of technology in the overall corporate environment.			Contact Hours: 3 + 0 Prerequisites: BA A603. Registration Restrictions: Graduate Standing. Special Fees. Advanced course in financial decision making presenting analytical techniques and concepts. Includes multifactor asset pricing models; free cash flow and corporate valuation; capital budgeting risk analysis and real options; working capital management, capital structure theory, mergers, and corporate bankruptcies.		

<b>BA A640</b>	<b>Global Marketing</b>	<b>3 CR</b>	<b>BA A690</b>	<b>Advanced Topics in Business</b>	<b>1-6 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Graduate standing. Apply the concepts of marketing strategy to achieve competitive advantage in the global marketplace. Primary focus includes market planning, organizing, coordinating, and controlling functions of international marketing management.			Contact Hours: 1-6 + 0 Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Faculty permission and graduate standing. May be stacked with: BA A490A. Special Note: May be repeated for credit with a change in subtitle up to a maximum of 6 credits. Examines current issues, techniques, and trends affecting business and applies advanced theories to analyze and solve business problems.		
<b>BA A641</b>	<b>Advanced Consumer Behavior</b>	<b>3 CR</b>	<b>BA A691</b>	<b>Student Managed Investment</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Graduate standing. Explores the relationship between consumers and firms. Applies the concepts of contemporary behavioral science to business practices. Applies relevant concepts from the fields of cultural anthropology, sociology, and psychology to problems encountered in different consumer groups.			Contact Hours: 1 + 4 Prerequisites: (BA A685 or concurrent enrollment). Registration Restrictions: Graduate standing. Includes students' management of investment portfolios and provides opportunities to conduct security analyses and make investment decisions in a realistic environment. The investment objective shall be to outperform the equity market on a risk-adjusted basis as measured by a suitable benchmark.		
<b>BA A648</b>	<b>Business Intelligence and Data Mining</b>	<b>3 CR</b>	<b>BA A692</b>	<b>Investment Seminar (Subtitle Varies)</b>	<b>3 CR</b>
Contact Hours: 2 + 2 Prerequisites: BA A273 or BA A601. Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Graduate standing Covers basic business intelligence and data mining warehousing and querying. Focuses on applying business intelligence and data mining techniques including marketing campaigns, fraud, and terrorism detection. Popular data mining software will be used to illustrate decision trees, classification algorithms, and other data mining techniques. This is a core course for Data Mining Certification.			Contact Hours: 3 + 0 Prerequisites: BA A603. Registration Restrictions: Graduate standing. Provides coverage of the products, analytical techniques for valuing investment securities, and quantifying their exposure to changes in economic conditions, as well as portfolio strategies for achieving an investor's objectives.		
<b>BA A652</b>	<b>International Comparison of Business Practices</b>	<b>3 CR</b>	<b>BA A695</b>	<b>Graduate Internship</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Graduate standing. A study of global business issues and international and cross-cultural management. An evaluation of leadership, management practices, business cultures, and strategy in an international context.			Contact Hours: 3 + 0 Registration Restrictions: Graduate standing; completion of MBA core courses Integrates classroom knowledge with supervised work experience.		
<b>BA A653</b>	<b>Multinational Financial Management</b>	<b>3 CR</b>	<b>BA A698</b>	<b>Individual Research</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: BA A603. Registration Restrictions: Graduate standing Covers foreign exchange determination and forecasting; foreign exchange, translation and transaction risks; hedging and speculation; international portfolio diversification and direct foreign investment; cross-border acquisitions; multinational working capital management, and international taxation.			Contact Hours: 3 + 0 Registration Restrictions: Graduate standing; completion of MBA core courses Independent primary research project conducted under the supervision of a faculty advisor.		
<b>BA A655</b>	<b>Strategic Management Seminar</b>	<b>3 CR</b>	<b>BA A699</b>	<b>Thesis</b>	<b>3/6 CR</b>
Contact Hours: 3 + 0 Prerequisites: BA A632 and BA A635 and BA A636. Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Graduate Standing. Analysis of the strategic environment; formulation and implementation of strategy. Role of top management and other stakeholders in setting the organization's fundamental direction. Structure and control system design for strategic support.			Contact Hours: 3 or 6 + 0 Registration Restrictions: Graduate standing; completion of MBA core courses. Independent research project conducted under supervision of a thesis advisor and committee, culminating in a formal thesis and oral defense.		
<b>BA A656</b>	<b>Management Project</b>	<b>3 CR</b>	<b>BIOL - Biological Sciences</b>		
Contact Hours: 3 + 0 Registration Restrictions: Completion of MBA core courses. Management research project designed to integrate policy concepts, research methods, and practical problem solving techniques.			<i>Offered through the College of Arts and Sciences ConocoPhillips Integrated Sciences Building (CPSB), Room 101, 786-4770 <a href="http://www.uaa.alaska.edu/biology">www.uaa.alaska.edu/biology</a> The WWAMI/Biomedical program may be found at <a href="http://biomed.uaa.alaska.edu">http://biomed.uaa.alaska.edu</a></i>		
<b>BA A685</b>	<b>Advanced Investment Management</b>	<b>3 CR</b>	<b>BIOL A074</b>	<b>Field Natural History</b>	<b>1-3 CR</b>
Contact Hours: 3 + 0 Prerequisites: BA A603. Registration Restrictions: Graduate standing. An advanced course in investment management covering problems and processes of evaluating stocks. Analyzes performance evaluation using fundamental, technical, and behavioral models. Includes analytical techniques for constructing and evaluating the portfolio's performance.			Contact Hours: 0 + 3-9 Grade Mode: Pass/No Pass. Special Note: May include extensive hiking and camping. Community service course. A short course on field natural history. Classes may focus on fungi, invertebrates, fish, mammals, birds, mosses and lichens, tracking, ecosystems and/or climate.		
<b>BA A686</b>	<b>Management Simulation</b>	<b>3 CR</b>	<b>BIOL A075</b>	<b>Local Flora</b>	<b>1 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Graduate standing; completion of undergraduate or graduate course in finance and accounting. Provides the opportunity to gain valuable hands-on experience in running a business as a member of a senior management team. Students define strategies and apply strategic concepts and techniques within a practical decision-making framework. The simulation demonstrates how a firm's production, marketing, R&D, HR, and financial operations interact, and how key decisions impact business performance within a competitive market. Students compete simultaneously with fellow classmates and student teams from universities around the world.			Contact Hours: 0 + 3 Grade Mode: Pass/No Pass. Special Note: May include preparation of pressed plant specimens and field trips. Community service course. The study of local plants with emphasis on identification and use.		
			<b>BIOL A100</b>	<b>Human Biology</b>	<b>3 CR</b>
			Contact Hours: 3 + 0 Special Note: Primarily for non-science majors. Not accepted for GER or biology major baccalaureate credit. Survey of biological principles as applied to human anatomy, physiology and genetics.		

## Course Descriptions

<b>BIOL A102</b>	<b>Introductory Biology</b>	<b>3 CR</b>	<b>BIOL A116</b>	<b>Fundamentals of Biology II</b>	<b>4 CR</b>
Contact Hours: 3 + 0 Course Attributes: UAA GER Natural Sciences Requirement. Special Note: Primarily for non-science majors. Satisfies CAS B.S. degree requirements. Selected introductory biological concepts including the chemical basis of life, cell structure, energetics, physiology, genetics, biotechnology, evolution, ecology and scientific methodology. This course will provide the non-biologist with a working knowledge of life science that will be useful in making informed decisions on health and the environment.			Contact Hours: 3 + 3 Prerequisites: BIOL A115 and CHEM A105 and CHEM A105L and (CHEM A106 or concurrent enrollment) and (CHEM A106L or concurrent enrollment). Corequisite: BIOL A116L. Course Attributes: UAA GER Natural Science w/ Lab. Special Note: One 3-hour lab per week. BIOL A115 and A116 are core courses in biology and are prerequisites to further courses in biological sciences. Continuation of topics addressed in BIOL A115, with emphasis on biodiversity, ecology, and survey of life, relating structure to function in the context of evolution.		
<b>BIOL A103</b>	<b>Introductory Biology Laboratory</b>	<b>1 CR</b>	<b>BIOL A124</b>	<b>Biota of Alaska: Selected Topics</b>	<b>1-4 CR</b>
Contact Hours: 0 + 3 Prerequisites: (BIOL A102 or concurrent enrollment). Course Attributes: UAA GER Natural Sciences Lab Only. Special Fees. Special Note: Primarily for non-science majors. Satisfies CAS B.S. degree requirements. Selected introductory biological concepts including the chemical basis of life, cell structure, energetics, physiology, genetics, biotechnology, evolution, ecology and scientific methodology. This course will provide the non-biologist with a working knowledge of life science that will be useful in making informed decisions on health and the environment. Laboratory supplement of BIOL A102. Exercises are designed to illustrate principles and concepts developed in BIOL A102.			Contact Hours: 1-4 + 0-12 Special Fees. Special Note: May include extensive hiking and camping. Can be repeated once with a change of subtitle for a maximum of 4 credits. Explores characteristics of animals, plants, fungi and protists of Alaska. Can include life history, habitat, ecology and behavior.		
<b>BIOL A111</b>	<b>Human Anatomy and Physiology I</b>	<b>4 CR</b>	<b>BIOL A126</b>	<b>Birds in Field and Laboratory</b>	<b>3 CR</b>
Contact Hours: 3 + 3 Corequisite: BIOL A111L. May be stacked with: BIOL A113. Course Attributes: UAA GER Natural Science w/ Lab. Special Note: Does not apply for Biology major credit. Satisfies CAS B.S. requirements. One 3-hour lab per week. An introduction to human structure and function. The integumentary, skeletal, muscular, nervous and endocrine systems are considered.			Contact Hours: 1 + 6 Special Note: May include field trips involving study projects. General biology, ecology and behavior of birds. Emphasis on characteristics, observation and recording information about birds.		
<b>BIOL A112</b>	<b>Human Anatomy and Physiology II</b>	<b>4 CR</b>	<b>BIOL A141</b>	<b>Introduction to Medicine and the Health Professions</b>	<b>4 CR</b>
Contact Hours: 3 + 3 Prerequisites: BIOL A111. Corequisite: BIOL A112L. May be stacked with: BIOL A114. Course Attributes: UAA GER Natural Science w/ Lab. Special Note: Does not apply for Biology major credit. Satisfies CAS B.S. requirements. One 3-hour lab per week. A continuation of BIOL A111. The circulatory, lymphatic, immune, respiratory, digestive, urinary and reproductive systems are considered.			Contact Hours: 3 + 3 Registration Restrictions: Admission to the Alaska WWAMI biomedical program's Della Keats/UDoC program. Provides students with skills to succeed at college and to proceed into medicine, nursing or another health profession. Includes modules in oral communication, written communication, medical terminology, how to succeed in college, biomedical ethics, microbiology, genetics, anatomy and physiology. Supplemented with guest lectures by medical faculty, nursing faculty and other health professionals, tours of medical and teaching facilities, and job-shadowing of doctors, nurses and other health professionals.		
<b>BIOL A113</b>	<b>Lectures in Human Anatomy and Physiology I</b>	<b>3 CR</b>	<b>BIOL A150</b>	<b>Introduction to Marine Biology</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Current Alaska registered nurse license and permission of both the Associate Dean of Nursing and the course instructor. May be stacked with: BIOL A111. BIOL A113 is the lecture portion of BIOL A111 without the laboratory.			Contact Hours: 3 + 0 Special Note: May include field trips and extensive hiking. An elementary course in marine natural history with emphasis on intertidal, coral reef and estuarine organisms. Also focuses on planktonic, benthic and pelagic organisms, including protists, invertebrates, fish, seabirds and marine mammals.		
<b>BIOL A114</b>	<b>Lectures in Human Anatomy and Physiology II</b>	<b>3 CR</b>	<b>BIOL A178</b>	<b>Fundamentals of Oceanography</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: BIOL A111 or BIOL A113. Registration Restrictions: Current Alaska registered nurse license and permission of both the Associate Dean of Nursing and the course instructor. May be stacked with: BIOL A112. A continuation of BIOL A113. BIOL A114 is the lecture portion of BIOL A112 without the laboratory.			Contact Hours: 3 + 0 Registration Restrictions: Placement into MATH A105 or higher. Crosslisted with: GEOL A178. Course Attributes: UAA GER Natural Sciences Requirement. Principles of oceanography, with emphasis on the ocean's biological, physical, chemical, and geological processes, and how ocean processes affect the atmosphere.		
<b>BIOL A115</b>	<b>Fundamentals of Biology I</b>	<b>4 CR</b>	<b>BIOL A179</b>	<b>Fundamentals of Oceanography Laboratory</b>	<b>1 CR</b>
Contact Hours: 3 + 3 Prerequisites: (CHEM A105 or concurrent enrollment) and (CHEM A105L or concurrent enrollment). Registration Restrictions: One year of high school biology, one year of high school chemistry, and working knowledge of the metric system. Corequisite: BIOL A115L. Course Attributes: UAA GER Natural Science w/ Lab. Special Note: One 3-hour lab per week. BIOL A115 and A116 are core courses in biology and are prerequisites to further course in biological sciences. A survey of molecular biology, genetics, and homeostasis in the context of evolution.			Contact Hours: 0 + 3 Registration Restrictions: Placement into MATH A105 or higher. Crosslisted with: GEOL A179. Course Attributes: UAA GER Natural Sciences Lab Only. Special Fees. Laboratory exercises designed to illustrate principles and concepts developed in BIOL A178/GEOL A178.		
			<b>BIOL A198</b>	<b>Individual Research</b>	<b>1-6 CR</b>
			Contact Hours: 0 + 3-18 Registration Restrictions: Faculty permission required. Special Note: May be repeated once for a maximum of 6 credits. Lab and field investigations on specific subjects in biology. Topic for study to be approved and directed by a faculty member in biological sciences.		
			<b>BIOL A200</b>	<b>Introduction to Complexity</b>	<b>3 CR</b>
			Contact Hours: 3 + 0 Prerequisites: MATH A107 or MATH A172. Crosslisted with: CPLX A200. Course Attributes: UAA GER Natural Sciences Requirement. An introduction to the science of complexity, currently used to predict system behavior in the physical, life, and social sciences.		

<b>BIOL A240</b>	<b>Introductory Microbiology for Health Sciences</b>	<b>4 CR</b>	<b>BIOL A310</b>	<b>Principles of Physiology</b>	<b>4 CR</b>
<p>Contact Hours: 3 + 3            Registration Restrictions: Concurrent enrollment in BIOL A112 or 8 hours in biology or chemistry.            Corequisite: BIOL A240L.            May be stacked with: BIOL A241.            Special Note: Recommended for associate and baccalaureate health science programs. Laboratory exercises generally require students to return to the lab to record experimental results after 24 hours throughout the semester. Not accepted for Biology degree credit. Students must attend lab the first week of class or they may be administratively dropped.            General introductory microbiology covering bacterial metabolism and genetics, virology, host parasite interactions, host defense mechanisms and epidemiology.</p>			<p>Contact Hours: 3 + 3            Prerequisites: BIOL A242.            Special Note: Satisfies physiology core curriculum requirement for biology majors.            This course emphasizes the fundamental principles of cellular and system physiology of animals with emphasis on vertebrate and, in particular, human physiology.</p>		
<b>BIOL A241</b>	<b>Lectures in Introductory Microbiology for Health Sciences</b>	<b>3 CR</b>	<b>BIOL A316</b>	<b>Introduction to Plant Physiology</b>	<b>3 CR</b>
<p>Contact Hours: 3 + 0            Registration Restrictions: 8 hours in biology or chemistry or concurrent enrollment in BIOL A112.            May be stacked with: BIOL A240.            Special Note: BIOL A241 is the lecture part of BIOL A240 only; it does not have a lab session. Recommended for students who have previously received credit for a microbiology course and who need to update their understanding of health science-related microbiology and for associate and baccalaureate health science programs. Not open to students who have completed BIOL A240 or BIOL A340 during the previous five years. Not accepted for Biology degree credit.            Lectures in introductory microbiology covering metabolism and genetics, virology, host parasite interactions, host defense mechanisms and epidemiology.</p>			<p>Contact Hours: 3 + 0            Prerequisites: BIOL A242.            Special Note: Satisfies physiology core curriculum requirement for biology majors.            Physiology of vascular plants, including growth, development, water relations, photosynthesis, material transport, and metabolism.</p>		
<b>BIOL A242</b>	<b>Fundamentals of Cell Biology</b>	<b>4 CR</b>	<b>BIOL A327</b>	<b>Parasitology</b>	<b>4 CR</b>
<p>Contact Hours: 3 + 3            Prerequisites: BIOL A115 and CHEM A105 and CHEM A105L.            Corequisite: BIOL A242L.            Special Note: Core course for Biology majors. One 3-hour lab per week. Students must attend lab the first week of class or they may be administratively dropped.            Examination of the structure, including ultrastructure, and function of cells. Isolation, composition, and biochemical properties of cell components.</p>			<p>Contact Hours: 3 + 3            Prerequisites: BIOL A116 and CHEM A106 and CHEM A106L.            Special Fees.            The life history and ecology of parasites of medical significance and economic importance, including diagnosis and control. Emphasis on North American parasites.</p>		
<b>BIOL A252</b>	<b>Principles of Genetics</b>	<b>4 CR</b>	<b>BIOL A331</b>	<b>Systematic Botany</b>	<b>4 CR</b>
<p>Contact Hours: 3 + 3            Prerequisites: BIOL A115 and CHEM A105 and CHEM A105L.            Corequisite: BIOL A252L.            Special Note: Core course for biology majors. One 3-hour lab per week. Students must attend lab the first week of class or they may be administratively dropped.            Principles of inheritance in prokaryotes and eukaryotes and physiochemical properties of genetic systems.</p>			<p>Contact Hours: 3 + 3            Prerequisites: BIOL A116.            Special Note: Saturday field trips. Offered alternate years.            Identification and classification of vascular plants with an emphasis on circumpolar flora; discussion of taxonomic principles and both classical and experimental methods of taxonomic research.</p>		
<b>BIOL A271</b>	<b>Principles of Ecology</b>	<b>4 CR</b>	<b>BIOL A333</b>	<b>Biology of Non-Vascular Plants</b>	<b>4 CR</b>
<p>Contact Hours: 3 + 3            Prerequisites: BIOL A252 and [STAT A253 or STAT A307].            Corequisite: BIOL A271L.            Special Note: Core course for biology majors. One 3-hour lab per week. Includes field trips. Students must attend lab the first week of class or they may be dropped.            Basic principles in physiological, ecosystem, population and community ecology, including environmental factors and their influence on living organisms and their structure; population growth, regulation, and interactions; the nature and diversity of biological communities in the context of evolution; and ecosystem structure and function and human impacts on the global system.</p>			<p>Contact Hours: 3 + 3            Prerequisites: BIOL A116.            Special Note: Offered alternate fall semesters.            Comparative study of structure, development, phylogenetic trends, and life histories of the major groups of algae, fungi and bryophytes.</p>		
<b>BIOL A298</b>	<b>Individual Research</b>	<b>1-6 CR</b>	<b>BIOL A334</b>	<b>Biology of Vascular Plants</b>	<b>4 CR</b>
<p>Contact Hours: 0 + 3-18            Prerequisites: BIOL A116.            Registration Restrictions: Faculty permission required.            Special Note: May be repeated once for a maximum of 6 credits.            Lab and field investigations on specific subjects in biology. Topic for study to be approved and directed by a faculty member in biological sciences.</p>			<p>Contact Hours: 3 + 3            Prerequisites: BIOL A333.            Corequisite: BIOL A334L.            Study of morphology, anatomy, ecology, and evolution of the major groups of vascular plants and the study of the relationship of humans to vascular plants.</p>		
<b>BIOL A308</b>	<b>Principles of Evolution</b>	<b>3 CR</b>	<b>BIOL A340</b>	<b>General Microbiology</b>	<b>5 CR</b>
<p>Contact Hours: 3 + 0            Prerequisites: BIOL A271.            Special Note: Core course for biology majors.            An introduction to the basic principles and mechanisms of the evolution of living systems, with emphasis on the evidence supporting modern understanding of the patterns and processes associated with individual and population variability, transmission of genetic information, lineage diversification and biological change.</p>			<p>Contact Hours: 3 + 6            Prerequisites: BIOL A242 and BIOL A252.            Registration Restrictions: 8 additional biology credits.            Corequisite: BIOL A340L.            Special Note: Some additional laboratory work will be required to complete laboratory experiments.            Special Note: Offered Spring semesters.            Biology of prokaryotic and eukaryotic microorganisms and viruses, their relationships to other organisms, and to the ecosystem.</p>		
<b>BIOL A309</b>	<b>Biogeography</b>	<b>3 CR</b>	<b>BIOL A365</b>	<b>Astrobiology</b>	<b>3 CR</b>
<p>Contact Hours: 3 + 0            Prerequisites: BIOL A308.            Ecological basis and historical patterns of the distribution of plants and animals on a worldwide basis. Current theories regarding the origin of these distributions are examined.</p>			<p>Contact Hours: 3 + 0            Prerequisites: BIOL A115 and [PHYS A123 or PHYS A211].            Registration Restrictions: Junior standing; completion of all GER Tier 1 (basic college-level skills) courses.            Crosslisted with: ASTR A365.            Course Attributes: UAA GER Integrative Capstone.            Special Fees.            A comprehensive examination of the possibility of the existence of life (microbial and advanced) outside of the Earth, the probability of discovery of extraterrestrial life (methods of planet detection, chemical signatures of microbial life, and contact with advanced life), and the scientific and cultural implications of such a discovery. Includes the study of star and planet formation rates, habitability zones, origin of life, evolution, and formation of intelligence.</p>		
			<b>BIOL A373</b>	<b>Conservation Biology</b>	<b>3 CR</b>
			<p>Contact Hours: 3 + 0            Prerequisites: BIOL A271.            Special Note: A service-learning course and includes field work outside of class time.            Review of the human drivers of global environmental change (human population growth and consumption of resources), resulting environmental degradation, and tools to slow down or reverse environmental damage.</p>		

## Course Descriptions

<b>BIOL A378</b>	<b>Marine Biology</b>	<b>3 CR</b>	<b>BIOL A445</b>	<b>Plant-Herbivore Ecology</b>	<b>4 CR</b>
Contact Hours: 3 + 0 Prerequisites: BIOL A271 or ENVI A211. Registration Restrictions: Junior standing; completion of all GER Tier 1 courses (basic college-level skills) is required for GER Tier 3 credit. Course Attributes: UAA GER Integrative Capstone. An introduction to the marine habitat, with a focus on understanding the biological basis behind modern conservation and management issues, particularly in Alaska. The ocean as physical habitat, marine food webs and trophic dynamics, coastal, benthic, and pelagic ecosystem structure, and changes in physical and biological systems due to human impacts and climate regimes.			Contact Hours: 3 + 3 Prerequisites: BIOL A271. Corequisite: BIOL A445L. May be stacked with: BIOL A645. Examination of the evolution of vascular plants and the coevolution of their herbivores. Exploration of the concepts of nutritional ecology of herbivores and the implications of these concepts to management of animal populations and their habitats. Topics include the evolution of plants and herbivores, the nutrition of herbivores, plant morphology and chemistry relative to herbivores, spatial and temporal dynamics of food resources, body size scaling and nutritional allometrics, forage selection and herbivore management. The course emphasizes arctic and boreal herbivores and their habitats.		
<b>BIOL A403</b>	<b>Microtechnique</b>	<b>4 CR</b>	<b>BIOL A450</b>	<b>Microbial Ecology</b>	<b>3 CR</b>
Contact Hours: 2 + 6 Prerequisites: BIOL A242. Registration Restrictions: 8 additional credits in biology; and faculty permission. Demonstration and use of tissue techniques including procurement, preservation embedding, sectioning, staining, microscopy, photography, and illustration.			Contact Hours: 3 + 0 Prerequisites: BIOL A340. May be stacked with: BIOL A650. Exploration of the diversity of the microbial world; microbial population and community ecology, the role of microorganisms in the cycling of elements in soils, lakes, and oceans; bacterial consumption and production of trace gases; geomicrobiology; symbioses.		
<b>BIOL A415</b>	<b>Comparative Animal Physiology</b>	<b>3 CR</b>	<b>BIOL A451</b>	<b>Applied Microbiology</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: BIOL A310 or BIOL A310. May be stacked with: BIOL A615. Special Note: Students who complete BIOL A415 as part of their undergraduate degree cannot receive credit towards their graduate degree from BIOL A615. An examination of the physiological adaptations of marine, freshwater, and terrestrial organisms. The comparative approach will be used in order to better understand how animals are uniquely adapted to their physical environment.			Contact Hours: 3 + 0 Prerequisites: BIOL A340. May be stacked with: BIOL A651. Biotechnology and the use of microorganisms in the development of pharmaceuticals. Microbially based foods and beverages, bio-insecticides, bioremediation.		
<b>BIOL A423</b>	<b>Ichthyology</b>	<b>4 CR</b>	<b>BIOL A452</b>	<b>Human Genome</b>	<b>3 CR</b>
Contact Hours: 3 + 3 Prerequisites: BIOL A252. Corequisite: BIOL A423L. Special Note: Includes field trips. Major groups of fishes, emphasizing the fishes of northwestern North America. Classification, structure, evolution, ecology, general biology and importance to humans of the major groups.			Contact Hours: 3 + 0 Prerequisites: ANTH A205 or BIOL A252 or PSY A370. Registration Restrictions: Completion of GER Tier 1 (basic college-level skills) courses and junior standing. Course Attributes: UAA GER Integrative Capstone. Special Note: Normally offered in alternate fall semesters. An in-depth exploration of the human genome with emphasis on social aspects. Topics will include the Human Genome Project, genome database searching, human chromosome and gene structure, developmental genetics, genetics of normal human traits, hereditary diseases, genetic screening and ethical issues, and genomic evidence of human evolution and migrations.		
<b>BIOL A425</b>	<b>Mammalogy</b>	<b>3 CR</b>	<b>BIOL A456</b>	<b>Nonlinear Dynamics and Chaos</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: BIOL A252. Survey of the class Mammalia, emphasizing systematics, morphology, physiology, ecology, evolution, behavior and conservation.			Contact Hours: 3 + 0 Prerequisites: MATH A202 with minimum grade of C and [PHYS A124 with minimum grade of C or PHYS A212 with minimum grade of C]. Registration Restrictions: Completion of GER Tier 1 (basic college-level skills) courses and junior standing. Crosslisted with: CHEM A456 and PHYS A456. Course Attributes: UAA GER Integrative Capstone. An introduction to nonlinear dynamics and chaos. Concrete examples from physics, biology, chemistry, and engineering are used to develop analytical methods and geometric intuition. Topics covered include phase plane analysis, iterated maps, fractals, and strange attractors.		
<b>BIOL A426</b>	<b>Ornithology</b>	<b>4 CR</b>	<b>BIOL A461</b>	<b>Molecular Biology</b>	<b>3 CR</b>
Contact Hours: 3 + 3 Prerequisites: BIOL A271. Corequisite: BIOL A426L. Special Note: Includes field trips. Survey of the class Aves (birds), emphasizing systematics, morphology, physiology, ecology, evolution, behavior and conservation.			Contact Hours: 3 + 0 Prerequisites: BIOL A252. May be stacked with: BIOL A661. Study of molecular biology, with emphasis on molecular genetics and the molecular biology of eukaryotic cells and cancer cells, including current developments in the field.		
<b>BIOL A427</b>	<b>Invertebrate Zoology</b>	<b>4 CR</b>	<b>BIOL A461L</b>	<b>Molecular Biology Laboratory</b>	<b>1 CR</b>
Contact Hours: 3 + 3 Prerequisites: BIOL A252. Corequisite: BIOL A427L. Special Note: Includes field trips. Functional anatomy and evolutionary adaptations of invertebrate animals.			Contact Hours: 0 + 3 Prerequisites: BIOL A252 and (BIOL A461 with minimum grade of C or concurrent enrollment). Special Fees. A practical implementation of the theory learned in BIOL A461, which includes recombinant DNA techniques, gene expression/detection, and mutagenesis.		
<b>BIOL A430</b>	<b>Marine Mammal Biology</b>	<b>4 CR</b>	<b>BIOL A462</b>	<b>Virology</b>	<b>3 CR</b>
Contact Hours: 3 + 3 Prerequisites: BIOL A271. Corequisite: BIOL A430L. May be stacked with: BIOL A630. Special Note: Students who completed BIOL A430 as part of their undergraduate degree cannot receive credit towards their graduate degree BIOL A630. An introduction to the biology and ecology of marine mammals, with an emphasis on understanding how marine mammals are adapted to their habitat, and the roles that they play in the marine ecosystem.			Contact Hours: 3 + 0 Prerequisites: BIOL A340. May be stacked with: BIOL A662. Special Fees. An in-depth examination of virus structure, gene expression, and replication, using selected bacterial, plant, and animal viruses; response of host cells to infection; control of virus replication via chemotherapeutic agents; and virus evolution. An understanding of cell biology is required.		
<b>BIOL A441</b>	<b>Animal Behavior</b>	<b>4 CR</b>			
Contact Hours: 3 + 3 Prerequisites: BIOL A271 and [STAT A253 or STAT A307]. Special Fees. Review of the ecological, evolutionary, physiology, and genetic basis of animal behavior. Research methods in lab.					



<b>BIOL A471</b>	<b>Immunochemistry</b>	<b>4 CR</b>	<b>BIOL A492</b>	<b>Undergraduate Seminar</b>	<b>1 CR</b>
Contact Hours: 3 + 3 Prerequisites: BIOL A340 and CHEM A321. Crosslisted with: CHEM A471. Special Fees. A study of the immune response including the biochemistry of antibodies, cellular and molecular events triggered by antigenic stimulation, regulation, immunopathology, transplantation, cancer and immunochemical techniques.			Contact Hours: 1 + 0 Registration Restrictions: Junior or senior standing. Special Note: May be repeated once for credit. The exploration of current and emerging ideas and findings across the biological sciences, with an emphasis on critique of the primary literature. The course will use readings from the primary literature to illustrate scientific methods, experimental design, and applied statistics in biology. The course will also build and refine student's scientific writing skills, and sharpen analytical thinking and scientific creativity.		
<b>BIOL A477</b>	<b>Tundra and Taiga Ecosystems</b>	<b>3 CR</b>	<b>BIOL A495</b>	<b>Instructional Practicum: Laboratory</b>	<b>1 CR</b>
Contact Hours: 3 + 0 Prerequisites: BIOL A271. May be stacked with: BIOL A677. Analysis of tundra and taiga ecosystems with emphasis on system functions and dynamics. Comparisons with other terrestrial systems will be made and unique characteristics will be emphasized.			Contact Hours: 0 + 3 Class Standing Restriction: Must be Senior. Registration Restrictions: Minimum of 20 credits in biology. Special Note: May be repeated once for credit. Supervised practical experience in one 3-hour biology laboratory section. Planning, presentation of material, achievement testing and correlation with lecture under the direct supervision of department faculty.		
<b>BIOL A478</b>	<b>Biological Oceanography</b>	<b>4 CR</b>	<b>BIOL A495A</b>	<b>Internship in the Biological Sciences</b>	<b>3 CR</b>
Contact Hours: 3 + 3 Prerequisites: BIOL A378. Special Fees. Principles of biological oceanography with an emphasis on identification and description of water masses and biological, chemical, and physical processes in the world's oceans. Systematics, water masses, nutrient dynamics, characteristic ecological communities, and benthic pelagic coupling. Use of laboratory methods and analyses will complement field studies.			Contact Hours: 3 + 0 Registration Restrictions: Junior standing with a minimum of 12 credits in biology courses and faculty permission. Special Note: May be taken more than once, but only three credits may be applied to elective upper division credit requirements for the baccalaureate degree in any of the BA or BS degrees offered by the Department of Biological Sciences. Professional work experience in appropriate areas of the biological sciences. Open to qualified students receiving faculty recommendation, and as placements are available.		
<b>BIOL A479</b>	<b>Physiological Plant Ecology</b>	<b>3 CR</b>	<b>BIOL A498</b>	<b>Individual Research</b>	<b>1-6 CR</b>
Contact Hours: 3 + 0 Prerequisites: BIOL A271 and BIOL A316. May be stacked with: BIOL A679. Analysis of interactions between plants and their environment. Deals with acquisition of resources, both energy and matter. Radiation interception and energy dissipation will be analyzed using energy balance equations. The nature of low and high temperature stress and adaptations to deal with these will be described.			Contact Hours: 0 + 3-18 Prerequisites: BIOL A252. Registration Restrictions: Faculty permission required. Special Fees. Special Note: May be repeated for a maximum of 6 credits. Lab and field investigations on specific subjects in biology. Topic for study to be approved and directed by a faculty member in biological sciences.		
<b>BIOL A487</b>	<b>Comparative Anatomy of Vertebrates</b>	<b>4 CR</b>	<b>BIOL A499</b>	<b>Senior Thesis</b>	<b>3 CR</b>
Contact Hours: 3 + 3 Prerequisites: BIOL A252. Corequisite: BIOL A487L. Special Fees. Functional anatomy, ecology, and evolution of chordates.			Contact Hours: 3 + 0 Registration Restrictions: Faculty permission required; Senior status in Biology Special Note: Required for Departmental Honors in Biology Independent or collaborative research under faculty supervision. Culminates in a document prepared to publication standards. Presentation in a science forum is encouraged.		
<b>BIOL A488</b>	<b>Developmental Biology</b>	<b>4 CR</b>	<b>BIOL A601</b>	<b>Advanced Experimental Design and Biostatistics</b>	<b>3 CR</b>
Contact Hours: 3 + 3 Prerequisites: BIOL A252. Special Fees. A study of the molecular and cellular principles which underlie the development of tissues and organ systems in animals, including classical embryology.			Contact Hours: 3 + 0 Registration Restrictions: Graduate standing Special Note: Graduate students in the Department of Biological Sciences are strongly encouraged to take this course during their first year of study. Advanced exploration of the concepts of experimental design and biostatistics and their application in the development and assessment of biological research. Students directly apply the course content to the development of their own graduate research proposals as part of the course.		
<b>BIOL A489</b>	<b>Population Genetics and Evolutionary Processes</b>	<b>3 CR</b>	<b>BIOL A603</b>	<b>Ecological Genetics and Quantitative Microevolution Theory</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: BIOL A252 with minimum grade of C or BIOL A308 with minimum grade of C. Registration Restrictions: Senior standing; fulfillment of GER Tier 1 and 2 requirements. Course Attributes: UAA GER Integrative Capstone. A comprehensive examination of the primary forces and processes involved in shaping genetic variation in natural populations (mutation, drift, selection, migration, recombination, mating patterns, population size and population subdivision), methods of measuring genetic variation in nature, and experimental tests of important ideas in population genetics.			Contact Hours: 3 + 0 Prerequisites: BIOL A308 or BIOL A389. Registration Restrictions: Graduate standing. An advanced and in-depth examination of the primary forces and processes involved in shaping genetic variation in natural population (mutation, drift, selection, migration, recombination, mating patterns, population size and population subdivision), methods of measuring genetic variation in nature, and experimental tests of important ideas in population genetics and microevolution theory.		
<b>BIOL A490</b>	<b>Selected Lecture Topics in Biology</b>	<b>1-3 CR</b>	<b>BIOL A610</b>	<b>Microscopic Anatomy</b>	<b>3 CR</b>
Contact Hours: 1-3 + 0 Registration Restrictions: 16 credits in biology. May be stacked with: BIOL A690. Special Note: See schedules for specific subtitles to be offered. With changes in subtitles, course may be repeated for credit although prerequisites and corequisites may vary with topic. Detailed coverage of a selected lecture topic in biology.			Contact Hours: 2 + 3 Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Admission to graduate program in Biology, and approval of WWAMI Biomedical Program Director and Faculty. Crosslisted with: BIOM A610. Lectures and laboratories in microscopic anatomy are designed to provide the principles and concepts of histology, to define the morphological characteristics of the cells, tissues and organs of the human body and to relate this information to functional processes studied in concurrent and subsequent courses.		
<b>BIOL A490L</b>	<b>Selected Laboratory Topics in Biology</b>	<b>1-3 CR</b>			
Contact Hours: 0 + 3-9 Registration Restrictions: 16 credits in biology. May be stacked with: BIOL A690L. Special Fees. Special Note: See schedules for specific subtitles to be offered. With changes in subtitles, course may be repeated for credit although prerequisites and corequisites may vary with topic. Detailed coverage of a selected laboratory topic in biology.					

## Course Descriptions

### **BIOL A611 Gross Anatomy I and Embryology 5 CR**

Contact Hours: 3 + 6

Level Restriction: Must be Graduate - UAA level.

Registration Restrictions: Admission to graduate program in Biology, and approval of WWAMI Program Director and Faculty.

Crosslisted with: BIOM A611.

Provides a broad understanding of the structural organization of the human body, as well as a basis in medical terminology. Goal is to provide foundation for physical examination and function assessment of the human organism. Course deals with organization of the human body at the macroscopic level. Integrates embryological development with study of the human cadaver and with examination of the normal living body. Course concentrates on study of the human torso and its cavities and the viscera they contain.

### **BIOL A612 Mechanisms in Cell Physiology 4 CR**

Contact Hours: 4 + 0

Level Restriction: Must be Graduate - UAA level.

Registration Restrictions: Admission to a graduate program in Biology, and approval of WWAMI Biomedical Program Director and Faculty.

Crosslisted with: BIOM A612.

Fundamental cellular events underlying the following topics: physiology of the cell membrane including ionic and electrical potential gradients, active transport, excitability and action potentials; biophysics of sensory receptors; neuromuscular transmission; muscle energetics and contractility; spinal reflexes and central synaptic transmission; autonomic nervous system; energy metabolism and temperature regulation; epithelial transport; gastrointestinal motility and secretions.

### **BIOL A615 Advanced Comparative Animal Physiology 4 CR**

Contact Hours: 4 + 0

Registration Restrictions: Graduate Standing.

May be stacked with: BIOL A415.

Special Note: Students who completed BIOL A415 as part of their undergraduate degree cannot receive credit towards their graduate degree from BIOL A615.

An in-depth examination of the physiological adaptations of marine, freshwater, and terrestrial organisms. The comparative approach will be used in order to better understand how animals are uniquely adapted to their physical environment. In addition to meeting all requirements for BIOL A415, graduate students will be required to lead class discussions, research the literature and prepare a research proposal that addresses a current topic in comparative physiology, and to orally present and defend that research proposal to the class as a whole.

### **BIOL A621 Microbiology and Infectious Disease I 5 CR**

Contact Hours: 5 + 0

Level Restriction: Must be Graduate - UAA level.

Registration Restrictions: Admission to graduate program in Biology and approval of WWAMI Biomedical Program Director and Faculty.

Crosslisted with: BIOM A621.

Pathogenesis and immunity of infectious disease and natural barriers. Microbiology, epidemiology, clinical manifestations, and control of representative bacterial, fungal, parasitic, and viral infectious diseases. Chemotherapeutics and principles of chemotherapy. Sterilization and principles of asepsis, nosocomial and iatrogenic infections and their presentation.

### **BIOL A623 Introduction to Immunology 2 CR**

Contact Hours: 2 + 0

Level Restriction: Must be Graduate - UAA level.

Registration Restrictions: Admission to graduate program in Biology, and approval of WWAMI Biomedical Program Director and Faculty.

Crosslisted with: BIOM A623.

Introduces basic immunological concepts and the role of these basic concepts in conditions such as immunodeficiencies, hypersensitivities, autoimmunity, blood transfusion, and transplantation.

### **BIOL A630 Advanced Marine Mammal Biology 4 CR**

Contact Hours: 4 + 0

Registration Restrictions: Graduate Standing.

Corequisite: BIOL A630R.

May be stacked with: BIOL A430.

Special Note: Students who completed BIOL A430 as part of their undergraduate degree cannot receive credit towards their graduate degree from BIOL A630.

Advanced study of the biology and ecology of marine mammals, with an emphasis on understanding how marine mammals are adapted to their habitat, and the roles that they play in the aquatic ecosystem. In addition to meeting all requirements for BIOL A430, graduate students will be required to participate in a weekly discussion of primary literature, lead one discussion, and prepare a research proposal that addresses a current topic in marine mammal biology, and to orally present and defend that research proposal to the class.

### **BIOL A631 Gross Anatomy II 4 CR**

(Head, Neck, Ear, Nose, and Throat)

Contact Hours: 3 + 3

Level Restriction: Must be Graduate - UAA level.

Registration Restrictions: Admission to graduate program in Biology, and approval of WWAMI Biomedical Program Director and Faculty.

Crosslisted with: BIOM A631.

Gross anatomy of the skull, larynx, and pharynx. Also covers: audition and balance; physiology; clinical evaluation; maxillo-facial disorders; diseases of nasal passages; naso- and oropharynx; accessory sinuses; and physical examination.

### **BIOL A632 Nervous System 5 CR**

Contact Hours: 4 + 3

Level Restriction: Must be Graduate - UAA level.

Registration Restrictions: Admission to graduate program in Biology, and approval of WWAMI Biomedical Program Director and Faculty.

Crosslisted with: BIOM A632.

Integrated approach to the normal structure and function of the nervous system, including the eye. Neuropathological examples are presented as well as clinical manifestations of neurological disease.

### **BIOL A634 Microbiology and Infectious Disease II 3 CR**

Contact Hours: 3 + 0

Level Restriction: Must be Graduate - UAA level.

Registration Restrictions: Admission to graduate program in Biology, and approval of WWAMI Biomedical Program Director and Faculty.

Crosslisted with: BIOM A634.

Continuation of BIOL A621.

### **BIOL A645 Advanced Plant-Herbivore Ecology 4 CR**

Contact Hours: 3 + 3

Prerequisites: BIOL A271 and BIOL A308.

Level Restriction: Must be Graduate - UAA level.

Registration Restrictions: Graduate standing.

Corequisite: BIOL A645L.

May be stacked with: BIOL A445.

Special Note: In addition to meeting all requirements for BIOL A445, graduate students will be required to research the literature on a current topic in plant-herbivore ecology, submit an extensive paper summarizing their findings including designs for future experiments on the subject, and give a seminar on the same topic. Not available for credit to students who have completed BIOL A445.

Advanced study of the evolution of vascular plants and the coevolution of their herbivores. Exploration of advanced concepts of nutritional ecology of herbivores and the implications of these concepts to management of animal populations and their habitats. Topics include the evolution of plants and herbivores, the nutrition of herbivores, plant morphology and chemistry relative to herbivores, spatial and temporal dynamics of food resources, body size scaling and nutritional allometrics, forage selection and herbivore management.

### **BIOL A650 Advanced Microbial Ecology 3 CR**

Contact Hours: 3 + 0

Prerequisites: BIOL A340.

Level Restriction: Must be Graduate - UAA level.

Registration Restrictions: Graduate standing.

May be stacked with: BIOL A450.

Special Note: In addition to meeting all requirements for BIOL A450, graduate students will be required to write a detailed research proposal in microbial ecology. Not available for credit to students who have completed BIOL A450.

Advanced exploration of the diversity of the microbial world; microbial population and community ecology, the role of microorganisms in the cycling of elements in soils, lakes, and oceans; bacterial consumption and production of trace gases; geomicrobiology; symbioses.

### **BIOL A651 Advanced Applied Microbiology 3 CR**

Contact Hours: 3 + 0

Prerequisites: BIOL A340.

Level Restriction: Must be Graduate - UAA level.

Registration Restrictions: Graduate standing.

May be stacked with: BIOL A451.

Special Note: In addition to meeting all requirements for BIOL A451, graduate students will be required to research the literature on a current topic in applied microbiology, submit an extensive paper summarizing their findings including designs for future experiments on the subject, and give a seminar on the same topic. Not available for credit to students who have completed BIOL A451.

Advanced study of biotechnology and the use of microorganisms in the development of pharmaceuticals. Microbially based foods and beverages, bio-insecticides, bioremediation.

<b>BIOL A653 Gross Anatomy III: Musculoskeletal System</b> 3 CR Contact Hours: 2 + 3 Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Admission to graduate program in Biology, and approval of WWAMI Biomedical Program Director and Faculty. Crosslisted with: BIOM A653.	<b>BIOL A690 Advanced Lecture Topics in Biology</b> 1-3 CR Contact Hours: 1-3 + 0 Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Graduate standing. Grade Mode: Pass/No Pass. May be stacked with: BIOL A490.
Gross, surface, applied and X-ray anatomy of musculoskeletal system including the spine, but excluding head and neck. Also covers histology of bone, cartilage, tendon-myotendinal junction and joints; musculoskeletal trauma and healing; pathology and clinical manifestations of other degenerative, inflammatory, metabolic, nutritional and congenital disorders; and physical examinations.	Special Note: See schedules for specific subtitles to be offered. With changes in subtitles, course may be repeated for credit although prerequisites and corequisites may vary with topic. In addition to meeting all requirements for BIOL A490, graduate students will be required to research the literature and/or conduct a research project on an advanced topic in biology, submit an extensive paper summarizing their findings including designs for future experiments on the subject, and give a seminar on the same topic. Not available for credit to students who have completed BIOL A490 having the same subtitle. Advanced coverage of a selected lecture topic in biology.
<b>BIOL A661 Advanced Molecular Biology</b> 3 CR Contact Hours: 3 + 0 Prerequisites: BIOL A252. Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Graduate standing. May be stacked with: BIOL A461. Special Note: In addition to meeting all requirements for BIOL A461, graduate students will be required to research the literature on a current topic in molecular biology, submit an extensive paper summarizing their findings including designs for future experiments on the subject, and give a seminar on the same topic. Not available for credit to students who have completed BIOL A461.	<b>BIOL A690L Advanced Laboratory Topics in Biology</b> 1-3 CR Contact Hours: 0 + 3-9 Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Graduate standing. Grade Mode: Pass/No Pass. May be stacked with: BIOL A490L. Special Fees.
Advanced study of molecular biology, with emphasis on molecular genetics and the molecular biology of eukaryotic cells and cancer cells, including current developments in the field.	Special Note: See schedules for specific subtitles to be offered. With changes in subtitles, course may be repeated for credit although prerequisites and corequisites may vary with topic. In addition to meeting all requirements for BIOL A490L, graduate students will be required to research the literature and/or conduct a research project on an advanced topic in biology, submit an extensive paper summarizing their findings including designs for future experiments on the subject, and give a seminar on the same topic. Not available for credit to students who have completed BIOL A490L having the same subtitle. Advanced coverage of a selected laboratory topic in biology.
<b>BIOL A662 Advanced Virology</b> 3 CR Contact Hours: 3 + 0 Prerequisites: BIOL A340. Registration Restrictions: Graduate Standing. May be stacked with: BIOL A462. Special Fees. Special Note: Lectures concurrent with BIOL A462. In addition to meeting all requirements for BIOL A462, graduate students will be required to research the literature on a current topic in molecular virology, prepare a research proposal summarizing their findings and describing an avenue of future research, and orally defend the research proposal. Not available for credit to students who have completed BIOL A462.	<b>BIOL A692 Graduate Seminar</b> 1 CR Contact Hours: 1 + 0 Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Graduate Standing. Grade Mode: Pass/No Pass.
An in-depth examination of virus structure, gene expression, and replication, using selected bacterial, plant, and animal viruses; response of host cells to infection; control of virus replication via chemotherapeutic agents; and virus evolution. An understanding of cell biology is required.	Special Note: May be repeated for a maximum of 2 credits. Topical subjects in biology presented by graduate students, biology faculty, and guest speakers.
<b>BIOL A663 Molecular Biology of Cancer</b> 3 CR Contact Hours: 3 + 0 Prerequisites: BIOL A461. Registration Restrictions: Graduate Standing.	<b>BIOL A696 Graduate Research Techniques</b> 1 CR Contact Hours: 1 + 0 Registration Restrictions: Graduate standing.
A study of the molecular biology of cancer, with emphasis on the mechanisms by which a normal cell becomes a malignant cell, including the role of both chemicals and viruses in carcinogenesis. The orientation of the course will be toward a study of current literature, by means of research, term papers, discussions, and seminars.	Training in data collection, analysis, presentation, and synthesis techniques, as appropriate to the field of biological research into which the graduate student has entered.
<b>BIOL A677 Advanced Tundra and Taiga Ecosystems</b> 3 CR Contact Hours: 3 + 0 Prerequisites: BIOL A271. Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Graduate standing. May be stacked with: BIOL A477.	<b>BIOL A698 Directed Research</b> 1-6 CR Contact Hours: 0 + 3-18 Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Graduate standing. Permission of graduate advisor required. Grade Mode: Pass/No Pass.
Special Note: In addition to meeting all requirements for BIOL A477, graduate students will be required to research the literature on a current topic in tundra and taiga ecosystems, submit an extensive paper summarizing their findings including designs for future experiments on the subject, and give a seminar on the same topic. Not available for credit to students who have completed BIOL A477. In-depth analysis of tundra and taiga ecosystems with emphasis on system functions and dynamics. Comparisons with other terrestrial systems will be made, and unique characteristics will be emphasized.	Special Note: May be repeated for a maximum of 12 credits in combination with BIOL A699; total for both courses not to exceed 12 credits towards M.S. degree. Thesis specific research for the M.S. degree in biological sciences. Topic for study to be approved and directed by a faculty member in the biological sciences.
<b>BIOL A679 Advanced Physiological Plant Ecology</b> 3 CR Contact Hours: 3 + 0 Prerequisites: BIOL A271 and BIOL A316. Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Graduate Standing. May be stacked with: BIOL A479.	<b>BIOL A699 Thesis</b> 1-6 CR Contact Hours: 0 + 3-18 Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Graduate standing. Permission of graduate advisor required.
Special Note: In addition to meeting all requirements for BIOL A479, graduate students will be required to research the literature on a current topic in ecological plant physiology, submit an extensive paper summarizing their findings including designs for future experiments and give a seminar on the same subject. Not available for credit to students who have completed BIOL A479. In-depth analyses of interactions between plants and their environment. Deals with acquisition of resources, both energy and matter. Radiation interception and energy dissipation will be analyzed using energy balance equations. The nature of low and high temperature stress and adaptations to deal with these will be described.	Special Note: May be repeated for a maximum of 12 credits in combination with BIOL A698; total for both courses not to exceed 12 credits towards M.S. degree. Planning, preparation, and completion of thesis for the M.S. degree in the biological sciences.

## BIOM - Biomedical Program

Offered through the College of Arts and Sciences

Health Sciences Building (HSB), Room 301, 786-4789

<http://biomed.uaa.alaska.edu>

### BIOM A610 Microscopic Anatomy 3 CR

Contact Hours: 2 + 3

Registration Restrictions: Admission to the WWAMI Biomedical Program.

Grade Mode: Pass/No Pass.

Crosslisted with: BIOL A610.

Lectures and laboratories in microscopic anatomy are designed to provide the principles and concepts of histology, to define the morphological characteristics of the cells, tissues and organs of the human body and to relate this information to functional processes studied in concurrent and subsequent courses.

### BIOM A611 Gross Anatomy I and Embryology 5 CR

Contact Hours: 3 + 6

Registration Restrictions: Admission to the WWAMI Biomedical Program.

Grade Mode: Pass/No Pass.

Crosslisted with: BIOL A611.

Provides a broad understanding of the structural organization of the human body, as well as a basis in medical terminology. Goal is to provide foundation for physical examination and function assessment of the human organism. Course deals with organization of the human body at the macroscopic level. Integrates embryological development with study of the human cadaver and with examination of the normal living body. Course concentrates on study of the human torso and its cavities and the viscera they contain.

### BIOM A612 Mechanisms in Cell Physiology 4 CR

Contact Hours: 4 + 0

Registration Restrictions: Admission to the WWAMI Biomedical Program.

Grade Mode: Pass/No Pass.

Crosslisted with: BIOL A612.

Fundamental cellular events underlying the following topics: physiology of the cell membrane including ionic and electrical potential gradients, active transport, excitability and action potentials; biophysics of sensory receptors; neuromuscular transmission; muscle energetics and contractility; spinal reflexes and central synaptic transmission; autonomic nervous system; energy metabolism and temperature regulation; epithelial transport; gastrointestinal motility and secretions.

### BIOM A613 Introduction to Clinical Medicine I 4 CR

Contact Hours: 4 + 0

Registration Restrictions: Admission to WWAMI Biomedical Program.

Grade Mode: Pass/No Pass.

Special Fees.

Designed to develop clinical medicine skills by teaching physical examination skills, addressing advanced professional and ethical issues, and enhancing clinical reasoning skills by using the medical history and the physical examination in the process of solving problems.

### BIOM A614 Biochemistry I 4 CR

Contact Hours: 4 + 0

Registration Restrictions: Admission to the WWAMI Biomedical Program.

Grade Mode: Pass/No Pass.

Covers molecular and cellular chemistry in humans, with emphasis on molecular genetics, proteins and carbohydrates.

### BIOM A615 Medical Information for Decision Making (MIDM) 1 CR

Contact Hours: 1 + 0

Registration Restrictions: Admission to the WWAMI Biomedical Program.

Grade Mode: Pass/No Pass.

An introduction to methods for identifying and retrieving high quality, relevant evidence and for describing and applying rigorous criteria when reading primary studies that report on the effectiveness of therapeutic or preventative interventions. Basic research methodologies and statistics are incorporated to assist students in evaluating the literature.

### BIOM A621 Microbiology and Infectious Disease I 5 CR

Contact Hours: 5 + 0

Registration Restrictions: Admission to the WWAMI Biomedical Program.

Grade Mode: Pass/No Pass.

Crosslisted with: BIOL A621.

Pathogenesis and immunity of infectious disease and natural barriers. Microbiology, epidemiology, clinical manifestations and control of representative bacterial, fungal, parasitic, and viral infectious diseases. Chemotherapeutics and principles of chemotherapy. Sterilization and principles of asepsis, nosocomial and iatrogenic infections and their presentation.

### BIOM A622 Introduction to Clinical Medicine II 4 CR

Contact Hours: 4 + 0

Registration Restrictions: Admission to the WWAMI Biomedical Program.

Grade Mode: Pass/No Pass.

Designed to advance clinical medicine skills by adding further physical examination skills, addressing advanced professional and ethical issues, and enhancing clinical reasoning skills by using the medical history and the physical examination in the process of solving problems.

### BIOM A623 Introduction to Immunology 2 CR

Contact Hours: 2 + 0

Registration Restrictions: Admission to the WWAMI Biomedical Program.

Grade Mode: Pass/No Pass.

Crosslisted with: BIOL A623.

Introduces basic immunological concepts and the role of these basic concepts in conditions such as immunodeficiencies, hypersensitivities, autoimmunity, blood transfusion, and transplantation.

### BIOM A624 Biochemistry II 3 CR

Contact Hours: 3 + 0

Registration Restrictions: Admission to the WWAMI Biomedical Program.

Grade Mode: Pass/No Pass.

Continuation of BIOM A614 with emphasis on lipid and nitrogen metabolism.

### BIOM A631 Gross Anatomy II (Head, Neck, Ear, Nose, and Throat) 4 CR

Contact Hours: 3 + 3

Registration Restrictions: Admission to the WWAMI Biomedical Program.

Grade Mode: Pass/No Pass.

Crosslisted with: BIOL A631.

Gross anatomy of the skull, larynx, and pharynx. Also covers: audition and balance; physiology; clinical evaluation; maxillo-facial disorders; diseases of nasal passages; naso- and oropharynx; accessory sinuses; and physical examination.

### BIOM A632 Nervous System 5 CR

Contact Hours: 4 + 3

Registration Restrictions: Admission to the WWAMI Biomedical Program.

Grade Mode: Pass/No Pass.

Crosslisted with: BIOL A632.

Integrated approach to the normal structure and function of the nervous system, including the eye. Neuropathological examples are presented as well as clinical manifestations of neurological disease.

### BIOM A634 Microbiology and Infectious Disease II 3 CR

Contact Hours: 3 + 0

Registration Restrictions: Admission to the WWAMI Biomedical Program.

Grade Mode: Pass/No Pass.

Crosslisted with: BIOL A634.

Continuation of BIOM A621.

### BIOM A650 Systems of Human Behavior I 3 CR

Contact Hours: 3 + 0

Registration Restrictions: Admission to the WWAMI Biomedical Program.

Grade Mode: Pass/No Pass.

Crosslisted with: PSY A650.

Selected overview of contributions from behavioral sciences useful to physicians in primary care clinical practice. Emphasizes impact of such factors as cultural background, social role, sexual identity and belief system upon students' future effectiveness as physicians. Presents role of behavioral factors in major management problems faced in medical practice. Teaches useful skills for analyzing behavior, defining behavioral objectives, and designing treatment strategies to obtain these objectives.

### BIOM A653 Gross Anatomy III: Musculoskeletal System 3 CR

Contact Hours: 2 + 3

Registration Restrictions: Admission to the WWAMI Biomedical Program.

Grade Mode: Pass/No Pass.

Crosslisted with: BIOL A653.

Gross, surface, applied and X-ray anatomy of musculoskeletal system including the spine, but excluding head and neck. Also covers histology of bone, cartilage, tendon-myotendinous junction and joints; musculoskeletal trauma and healing; pathology and clinical manifestations of other degenerative, inflammatory, metabolic, nutritional and congenital disorders; and physical examinations.

### BIOM A690 Selected Topics in Medical Science 1-3 CR

Contact Hours: 1-3 + 0

Level Restriction: Must be Graduate - UAA level.

Registration Restrictions: Admission to WWAMI Biomedical Program; OR graduate level and approval of WWAMI Biomedical Program Directory and Faculty.

Grade Mode: Pass/No Pass.

Special Note: May be repeated with change of subtitle and faculty approval for a maximum of 9 credits.

Theory and practice of selected topics in medical science which are of current relevance to medical students and/or graduate students in biomedicine.

## CA - Culinary Arts

*Offered through the Community & Technical College*

*Lucy Cuddy Hall (CUDY), Room 126, 786-4728*

*www.uaa.alaska.edu/ctc/culinary*

### CA A101                      **The Hospitality Industry: Careers, Trends, and Practices**                      2 CR

Contact Hours: 2 + 0

Explores myriad career titles and opportunities in the hospitality industry and reviews emerging labor trends.

### CA A103                      **Culinary Skill Development**                      4 CR

Contact Hours: 2 + 8

Prerequisites: CA A104 with minimum grade of C and CA A105 with minimum grade of C and CA A107 with minimum grade of C and CA A110 with minimum grade of C and DN A101 with minimum grade of C.

Corequisite: CA A111.

Special Fees.

Introduces and applies fundamental cooking theories and techniques. Emphasizes kitchen safety and sanitation, culinary French and industry terminology, and reinforces topics in nutrition, food science, recipe costing, product standards and identification.

### CA A104                      **Sanitation**                      2 CR

Contact Hours: 2 + 0

Focuses on sanitation principles, concepts, methods, codes and regulations current to the foodservice industry. Offers a national exam for sanitation certification.

### CA A105                      **Principles of Food Science**                      3 CR

Contact Hours: 2 + 2

Special Fees.

Explores the physical, chemical and mechanical effects on food elements during preparation, cooking, and storage.

### CA A107                      **Cost Control**                      3 CR

Contact Hours: 3 + 0

Registration Restrictions: Grade of C or better in MATH A054, or placement into MATH A055 or higher.

Special Fees.

Focuses on critical control points in the foodservice cost control cycle. Prepares student to analyze costs and make foodservice operation decisions.

### CA A110                      **Quantity Food Purchasing**                      2 CR

Contact Hours: 2 + 0

Covers foodservice industry purchasing practices and standards.

### CA A111                      **Bakery Skill Development**                      4 CR

Contact Hours: 2 + 8

Prerequisites: CA A104 with minimum grade of C and CA A105 with minimum grade of C and CA A107 with minimum grade of C and CA A110 with minimum grade of C and DN A101 with minimum grade of C.

Corequisite: CA A103.

Special Fees.

Introduces and provides student with a solid theoretical and practical foundation in baking practices.

### CA A114                      **Beverage Management**                      3 CR

Contact Hours: 3 + 0

Registration Restrictions: Minimum age of 21 years.

Special Fees.

Special Note: Students have the option to become certified through an approved alcohol training curriculum that will allow them to legally serve alcohol in the state of Alaska.

Reviews the history of the beverage industry, including alcohol and non-alcohol beverages. Focuses on the management and operations of the beverage service. Covers legal responsibilities of serving alcohol and awareness of alcohol abuse.

### CA A115                      **Gourmet Cooking, Healthy Style**                      1 CR

Contact Hours: 0 + 2

Grade Mode: Pass/No Pass.

Special Fees.

Features "Low fat" methods of cooking for home use. Students prepare and sample a variety of different foods including meat and meatless entrees, fresh and frozen vegetables, starches, appetizers, soups, salads, and holiday meals.

### CA A201                      **A la Carte Kitchen**                      4 CR

Contact Hours: 0 + 10

Prerequisites: CA A103 with minimum grade of C and CA A111 with minimum grade of C.

Special Fees.

Emphasizes cooking techniques and ingredients used in contemporary and classical cuisines.

### CA A202                      **Advanced Bakery**                      4 CR

Contact Hours: 2 + 8

Prerequisites: CA A103 with minimum grade of C and CA A111 with minimum grade of C.

Special Fees.

Explores advanced bakery, pastry, confectionary and presentation techniques. Emphasizes production processes, service, portion controls, safety and sanitation.

### CA A223                      **Catering Management**                      2 CR

Contact Hours: 1 + 4

Prerequisites: CA A101 with minimum grade of C and CA A103 with minimum grade of C and CA A104 with minimum grade of C and CA A107 with minimum grade of C and CA A110 with minimum grade of C and CA A111 with minimum grade of C.

Special Fees.

Introduces fundamental concepts of catering management, planning and production.

### CA A224                      **Hospitality Service**                      3 CR

Contact Hours: 1 + 6

Prerequisites: CA A201 with minimum grade of C.

Special Fees.

Focuses on practical and theoretical operations in dining room service and management.

### CA A225                      **Hospitality Concept Design**                      3 CR

Contact Hours: 3 + 0

Prerequisites: CA A103 and CA A111.

Explores menu design and layout of professional foodservice facilities.

### CA A230                      **Foodservice Management**                      3 CR

Contact Hours: 3 + 0

Special Fees.

Covers supervisory and management responsibilities within foodservice operations.

### CA A295A                      **Foodservice Operations Practicum**                      1 CR

Contact Hours: .3 + 4

Prerequisites: CA A104 and CA A107 and (CA A220 or concurrent enrollment).

Registration Restrictions: Current immunizations.

Corequisite: CA A220.

Grade Mode: Pass/No Pass.

Special Note: Requires facility orientation.

Provides student with opportunity to interpret field experiences, differentiate between available strategies, recall and apply foodservice operations principles and skills. Interpret institutional protocols, manuals, guides, etc. Apply basic principles, estimate results or outcomes, and discuss work with site supervisor. Facilitates 50 hour field experience.

### CA A295B                      **Foodservice Management Practicum**                      1 CR

Contact Hours: .3 + 4

Prerequisites: CA A104 and CA A107 and (CA A220 or concurrent enrollment).

Registration Restrictions: Current immunizations.

Corequisite: CA A230.

Grade Mode: Pass/No Pass.

Special Note: Requires facility orientation.

Provides student with opportunity to interpret field experiences, differentiate between available strategies, recall and apply foodservice management principles and skills. Interpret institutional protocols, manuals, guides, etc. Apply basic principles, estimate results or outcomes, and discuss work with site supervisor. Facilitates 50 hour field experience.

### CA A295C                      **Foodservice Internship**                      3 CR

Contact Hours: 1 + 15

Prerequisites: CA A201 with minimum grade of C and CA A202 with minimum grade of C and CA A224 with minimum grade of C and CA A230 with minimum grade of C.

Grade Mode: Pass/No Pass.

Provides supervised workplace training in selected foodservice industry settings. Integrates knowledge and skills through work designed to meet student's individual competency needs and career objectives. Requires minimum of 225 hours at worksite plus 15 hours of on campus instruction.

### CA A320                      **Foodservice Operations**                      3 CR

Contact Hours: 3 + 0

Prerequisites: CA A104 with minimum grade of C and CA A105 with minimum grade of C and CA A107 with minimum grade of C and CA A110 with minimum grade of C and DN A101 with minimum grade of C.

Provides theoretical and conceptual learning in foodservice operations.

Emphasizes managing revenue and expense, determining sales forecasts, managing food and beverage costs, managing food and beverage production processes, projecting food and beverage price points, managing labor costs, analyzing income statements, and planning for profit.

## Course Descriptions

### CA A490 Current Topics in Food and Hospitality 1-6 CR

Contact Hours: 0-6 + 0-18  
Special Fees.

Examines current topics in culinary arts resulting from special demands of the industry or special faculty expertise.

### CA A495 Hospitality Internship 6 CR

Contact Hours: 2 + 40

Registration Restrictions: Completion of Business Core and UNLV or NAU Core with cumulative minimum GPA of 2.0. Completion of GER Tier 1 (basic college-level skills) requirements.

Course Attributes: UAA GER Integrative Capstone.

Special Note: Requires professional attire.

Allows for application of theoretical concepts and principles in the hospitality restaurant management work environment. Emphasizes professional competency in customer relations and service, human resource management, operations management, food and beverage cost control, marketing, ethics, and service quality control. Requires a minimum of 560 hours at work site plus 40 hours of related seminar instruction and project work.

## CE - Civil Engineering

Offered through the School of Engineering

Engineering Building (ENGR), Room 201, 786-1900

[www.engr.uaa.alaska.edu](http://www.engr.uaa.alaska.edu)

### CE A334 Properties of Materials 3 CR

Contact Hours: 2 + 3

Prerequisites: ES A302 with minimum grade of C and (ES A331 with minimum grade of C or concurrent enrollment).

Corequisite: CE A334L.

Special Fees.

Experimental investigation of the properties of civil engineering materials and the basic principles of mechanics. The development of testing procedures, the use of standard testing procedures, and the interpretation of data are also covered. There is a strong emphasis on technical report writing.

### CE A344 Water Resources Engineering 3 CR

Contact Hours: 3 + 0

Prerequisites: ES A341 with minimum grade of C and ES A341L with minimum grade of C.

Provides a working knowledge of principles and procedures for planning and design of systems for management of water resources.

### CE A402 Transportation Engineering 3 CR

Contact Hours: 3 + 0

Prerequisites: CE A435 with minimum grade of C.

Introduction to planning and engineering of transportation systems and their functions, components, and operation. Those systems include highways, airports, railroads, and water transportation with emphasis for highways on planning, geometrical design, traffic operations, and design of pavement structures.

### CE A403 Arctic Engineering 3 CR

Contact Hours: 3 + 0

Registration Restrictions: Junior or senior standing in an accredited undergraduate program in engineering.

May be stacked with: CE A603.

Introduces students to a broad spectrum of engineering challenges unique to cold regions. Physical principles and practical data collection methods, analyses, designs, and construction methods are discussed. Students gain a working knowledge of cold regions engineering problems and modern solutions as a basis for more detailed study.

### CE A422 Foundation Engineering 3 CR

Contact Hours: 3 + 0

Prerequisites: CE A435 with minimum grade of C.

Concepts, principles, and/or procedures related to slope stability, shallow foundations, pile foundations, drilled shafts, lateral earth pressure, retaining walls, sheet pile walls, braced cuts, soil improvement, and reinforced earth structures.

### CE A423 Traffic Engineering 3 CR

Contact Hours: 2 + 2

Prerequisites: CE A402 with minimum grade of C.

May be stacked with: CE A623.

Traffic engineering studies and analyses, traffic flow theory, traffic control systems design, signalization, and capacity analyses.

### CE A424 Pavement Design 3 CR

Contact Hours: 2 + 2

Prerequisites: CE A334 with minimum grade of C and ES A331 with minimum grade of C.

May be stacked with: CE A624.

Analysis and design of highway and airport pavements, principles of theoretical and practical approaches for the design of flexible and rigid pavement structures. Methods for asphalt concrete mixture design and performance measures.

### CE A425 Highway Engineering 3 CR

Contact Hours: 2 + 3

Prerequisites: CE A402 with minimum grade of C.

May be stacked with: CE A625.

Special Fees.

Geometrical and structural design, construction, and maintenance of highway facilities and associated economic, social, and environmental consequences.

### CE A431 Structural Analysis 4 CR

Contact Hours: 4 + 0

Prerequisites: CE A334 with minimum grade of C and ES A331 with minimum grade of C.

Special Fees.

Review of statically determinate beams and trusses. Discusses shearing, bending moment and influence of line diagrams for statically determinate and indeterminate structures. Includes the study of deflections, elastic lines, an introduction to matrix and computer analyses.

### CE A432 Steel Design 3 CR

Contact Hours: 3 + 0

Prerequisites: CE A431 with minimum grade of C.

Essentials of structural design in steel including building code requirements and standard practice for the design of basic structural elements and connections.

### CE A433 Reinforced Concrete Design 3 CR

Contact Hours: 3 + 0

Prerequisites: CE A431 with minimum grade of C.

Essentials of structural design in reinforced concrete including building code requirements and standard practice for the design of basic structural elements.

### CE A434 Timber Design 3 CR

Contact Hours: 3 + 0

Prerequisites: CE A431.

Special Note: Offered Alternate Fall Semesters.

Essentials of structural design in timber including building code requirements and standard practice for the design of basic structural elements, connections, and shearwall lateral force resisting systems.

### CE A435 Soil Mechanics 3 CR

Contact Hours: 2 + 3

Prerequisites: ES A331 with minimum grade of C and CE A334 with minimum grade of C.

Corequisite: CE A435L.

Special Fees.

Concepts, principles, and/or procedures related to soil formation and classification, soil compaction, flow of water in soils, stresses in a soil mass, soil settlement, shear strength of soil, subsoil exploration, and frost action.

### CE A438 Design of Civil Engineering Systems 3 CR

Contact Hours: 3 + 0

Registration Restrictions: Faculty permission, based on evidence that the student will complete all BSCE graduation requirements within the calendar year.

Course Attributes: UAA GER Integrative Capstone.

Capstone course in which civil engineering students collaborate in multi-disciplinary teams to design a complex civil engineering system that meets client needs while protecting public health and safety. Students apply knowledge and skills learned in their undergraduate curriculum.

### CE A441 Introduction to Environmental Engineering 3 CR

Contact Hours: 3 + 0

Prerequisites: CHEM A106 with minimum grade of C and CHEM A106L with minimum grade of C and (ES A341 with minimum grade of C or concurrent enrollment) and (ES A341L with minimum grade of C or concurrent enrollment).

Special Fees.

Introduction to the fundamentals of environmental engineering. Includes the theory and application of water and wastewater engineering, water supply concepts, wastewater characteristics, treatment and disposal, solid waste management and air pollution control.

<p><b>CE A442 Environmental Systems Design 3 CR</b>            Contact Hours: 3 + 0            Prerequisites: CE A441.            Special Note: Offered Spring Semesters.            An advanced course on the design of systems commonly used in environmental engineering practice with an emphasis on water and wastewater treatment and contaminated soils. Design of unit processes and operations will be performed. Selection of system components, design and performance calculations, and complete engineering reports are required.</p>	<p><b>CE A612 Advanced Foundation Design 3 CR</b>            Contact Hours: 3 + 0            Prerequisites: CE A422 with minimum grade of C.            Registration Restrictions: Undergraduate civil engineering senior, graduate standing in engineering, or instructor permission.            Special Fees.            Presents the analysis, design, and construction aspects of deep foundations and other special topics of deep foundations related to cold regions engineering. Specifically, this course will cover lateral earth pressures, lateral support systems, single pile and pile group behavior under vertical and lateral loads, including static and dynamic loading conditions, and the latest development in soil improvement and ground modification techniques. Special foundation engineering issues related to cold regions will also be discussed.</p>
<p><b>CE A600 Fundamentals of Environmental Science and Engineering 3 CR</b>            Contact Hours: 3 + 0            Registration Restrictions: Registrants must be enrolled in the AEST or CE graduate programs, or gain instructor approval.            A fundamental course in environmental science and engineering for students who have strong undergraduate training in the sciences or engineering. Provides basic and specialized understanding of essentially all fundamental aspects of the field with a focus upon aquatic and terrestrial environments. Emphasis is placed upon the fundamentals of biological, chemical, and physical science which underlie both natural and cultural environmental effects. Includes the use and application of equilibrium processes, mass and energy balances, processes that occur in natural systems and others.</p>	<p><b>CE A623 Traffic Engineering 3 CR</b>            Contact Hours: 2 + 2            Prerequisites: CE A402 with minimum grade of C.            May be stacked with: CE A423.            Traffic engineering studies and analyses, traffic flow theory, traffic control systems design, signalization, and capacity analyses.</p>
<p><b>CE A603 Arctic Engineering 3 CR</b>            Contact Hours: 3 + 0            Registration Restrictions: Graduate standing with a baccalaureate degree in engineering. No previous credits for CE A403.            May be stacked with: CE A403.            Special Fees.            Introduces students to a broad spectrum of engineering challenges that are unique to cold regions. Physical principles and practical data collection methods, analyses, designs, and construction methods are discussed. Students gain a working knowledge of cold-region engineering problems and modern solutions as a basis for detailed study.</p>	<p><b>CE A624 Pavement Design 3 CR</b>            Contact Hours: 2 + 2            Prerequisites: CE A334 with minimum grade of C and ES A331 with minimum grade of C.            Level Restriction: Must be Graduate - UAA level.            Registration Restrictions: Graduate Standing.            May be stacked with: CE A424.            Analysis and design of highway and airport pavements, principles of theoretical and practical approaches for the design of flexible and rigid pavement structures. Methods for asphalt concrete mixture design and performance measures.</p>
<p><b>CE A605 Chemical and Physical Water and Wastewater Treatment Processes 3 CR</b>            Contact Hours: 3 + 0            Registration Restrictions: Registrants must be enrolled in the AEST or CE graduate programs, or gain instructor approval.            The theory and design of chemical and physical unit processes utilizing the treatment of water and wastewater. Sedimentation and flotation, ion exchange, adsorption, coagulation, precipitation, filtration, disinfection, reverse osmosis and aeration theories will be studied. Design problems for all unit processes.</p>	<p><b>CE A625 Highway Engineering 3 CR</b>            Contact Hours: 2 + 3            Prerequisites: CE A402 with minimum grade of C.            Major Restriction: Must be Civil Engineering major.            May be stacked with: CE A425.            Special Fees.            Geometrical and structural design, construction, and maintenance of highway facilities and associated economic, social, and environmental consequences.</p>
<p><b>CE A606 Biological Treatment Processes 3 CR</b>            Contact Hours: 3 + 0            Registration Restrictions: Registrants must be enrolled in AEST or CE graduate programs, or gain instructor approval.            Special Fees.            Study of the theoretical and biological processes including activated sludge, trickling filters, lagoons, sludge digestion and processing, septic tanks, analysis and design, nutrient removal processes, biology of polluted waters, economics, state and federal regulations.</p>	<p><b>CE A631 Structural Finite Elements 3 CR</b>            Contact Hours: 3 + 0            Prerequisites: CE A431 with minimum grade of C.            Fundamental equations for different finite elements as well as computer modeling of engineering structures using these elements are examined. Basic finite elements for truss, beam, frame and triangular plane elements are discussed in detail. The use of finite element software to solve a variety of structural engineering problems is discussed. The results of actual analysis are critically examined in class.</p>
<p><b>CE A610 Engineering Seismology 3 CR</b>            Contact Hours: 3 + 0            Prerequisites: CE A435 with minimum grade of C.            Registration Restrictions: Graduate level or undergraduate senior standing, or instructor permission.            Covers internal structure of the earth, causes and occurrence of earthquakes, seismic waves and their propagation, seismograms, strong ground motion measurements, accelerometers and seismic network, data processing and interpretation of strong motion records, estimation of ground motion parameters and spatial variability, probabilistic and deterministic seismic hazard assessment with special reference to Alaska.</p>	<p><b>CE A633 Structural Dynamics 3 CR</b>            Contact Hours: 3 + 0            Prerequisites: CE A431 and MATH A302.            Special Fees.            Covers the theory of structural dynamics, including single and multiple degree of freedom systems subjected to earthquake and other excitations. Application to analysis and design of civil engineering structures is emphasized.</p>
<p><b>CE A611 Geotechnical Earthquake Engineering 3 CR</b>            Contact Hours: 3 + 0            Prerequisites: CE A435 with minimum grade of C.            Registration Restrictions: Graduate level or undergraduate senior standing, or instructor approval.            Special Fees.            Covers earthquakes and seismology, strong ground motion measurement, seismic hazard analysis, ground response analysis, dynamic soil properties, liquefaction, soil-structure interaction, seismic slope stability, and seismic design of retaining structures, with applications to cold regions geotechnical earthquake engineering problems.</p>	<p><b>CE A634 Structural Earthquake Engineering 3 CR</b>            Contact Hours: 3 + 0            Prerequisites: CE A431 with minimum grade of C and CE A633 with minimum grade of C.            Registration Restrictions: Graduate level or undergraduate senior standing, or instructor approval.            Introduces basic seismic concepts and design principles. Criteria for design and construction of structure subject to earthquake ground motions. Also includes technology for reducing earthquake loads through seismic isolation.</p>
	<p><b>CE A636 Multi-Story Building Structural Design 3 CR</b>            Contact Hours: 3 + 0            Prerequisites: CE A431 with minimum grade of C and CE A432 with minimum grade of C and CE A433 with minimum grade of C and CE A639 with minimum grade of C.            Registration Restrictions: Graduate level or undergraduate senior standing, or instructor approval.            Teaches the design of structural systems for buildings. Topics covered include the selection and analysis of structural systems, building codes and their origins, and an introduction to the development of design drawings and specifications.</p>

## Course Descriptions

### CE A637 Earthquake Resistant Structural Design 3 CR

Contact Hours: 3 + 0

Prerequisites: CE A431 with minimum grade of C and CE A432 with minimum grade of C and CE A433 with minimum grade of C.

Registration Restrictions: Graduate level or undergraduate senior standing, or instructor approval.

Covers the special structural detail requirements for earthquake design in steel, concrete, timber, and masonry.

### CE A639 Loads on Structures 3 CR

Contact Hours: 3 + 0

Prerequisites: CE A431 with minimum grade of C and CE A435 with minimum grade of C.

Registration Restrictions: Graduate level or undergraduate senior standing, or instructor approval.

Covers the computation of loads on structures using ASCE 7, Minimum Design Loads for Buildings and Other Structures. The computation of loads (dead, live, soil, flood, snow, wind, and seismic) and probable combinations of loads will be covered.

### CE A662 Surface Water Dynamics 3 CR

Contact Hours: 3 + 0

Prerequisites: ES A341.

Principles of open channel flow, ice covered flow, unsteady flow, and stream flow as a sediment and pollution transport agent.

### CE A663 Ground Water Dynamics 3 CR

Contact Hours: 3 + 0

Prerequisites: ES A341.

Fundamentals of geohydrology, hydraulics of flow through porous media, well hydraulics, ground water pollution, and ground water resources development.

### CE A674 Waves, Tides, and Ocean Processes for Engineers 3 CR

Contact Hours: 3 + 0

Prerequisites: ES A341.

Registration Restrictions: Prerequisite and graduate standing, or instructor permission.

Introduction to the physical properties and behavior of sea water with the ocean basins, and the practice of ocean research and engineering. Introduction to the physical properties and behavior of free surface gravity waves, measurements and characterizations of ocean wave climate, and interactions of ocean waves with structures and natural coastal features.

### CE A675 Design of Ports and Harbors 3 CR

Contact Hours: 3 + 0

Prerequisites: ES A341.

Registration Restrictions: Prerequisite and graduate standing, or instructor permission.

Introduction to planning and design of port and harbor facilities.

### CE A676 Coastal Engineering 3 CR

Contact Hours: 3 + 0

Registration Restrictions: Bachelor's degree in Civil engineering.

Special Note: Offered Alternate Spring Semesters.

Review of deep and shallow water waves, littoral drift, coastal structures, pollution problems, and harbor seiches.

### CE A677 Coastal Measurements and Analysis 3 CR

Contact Hours: 3 + 0

Registration Restrictions: Upper class or graduate standing in Geomatics, Engineering, or Natural Sciences.

Special Fees.

Review of and practice with modern instrumentation, equipment, sampling and measurement techniques, and methods of analysis for quantitative study of coastal ocean physical processes.

### CE A681 Frozen Ground Engineering 3 CR

Contact Hours: 3 + 0

Prerequisites: CE A435.

Registration Restrictions: Graduate standing, with a baccalaureate degree in engineering, or upper class standing in an accredited undergraduate program in engineering.

Special Fees.

Physical, thermal, and mechanical properties of frozen soils, frost action, heat flow in soils, thaw behavior of frozen ground, foundations in frozen ground, construction ground freezing, pavement design, earthwork, and field investigations for frozen ground.

### CE A682 Ice Engineering 3 CR

Contact Hours: 3 + 0

Prerequisites: ES A331.

Registration Restrictions: Graduate standing, with a degree in engineering or physical science, or upper class standing in an accredited undergraduate program in these categories.

Special Fees.

Factors are reviewed governing design of engineering works which must contend with the presence of ice. Topics discussed include fundamental ice properties, river, lake, and sea ice processes, ice navigation and control of ice in channels, structural and non-structural ice control measures, ice jams, bearing capacity of floating ice sheets, ice forces on riverine and ocean structures.

### CE A683 Arctic Hydrology and Hydraulic Engineering 3 CR

Contact Hours: 3 + 0

Prerequisites: CE A344.

Registration Restrictions: Graduate standing, with degree in engineering or physical science, or upper class standing in an accredited undergraduate program in these categories.

Special Fees.

Aspects of hydrology and hydraulics unique to engineering problems of the North. Emphasis on Alaskan conditions, information from Canada and other circumpolar countries included.

### CE A684 Arctic Utility Distribution 3 CR

Contact Hours: 3 + 0

Prerequisites: CE A344.

Registration Restrictions: Graduate standing, with a degree in engineering or physical science, or upper class standing in an accredited undergraduate program in these categories.

Special Fees.

Reviews physical principles and current practices associated with planning and design of safe, efficient, and affordable water supply, fire protection, wastewater collection and disposal, and solid waste disposal works in cold regions, with a view toward conditions of rural Arctic Alaska.

### CE A686 Civil Engineering Project 1-6 CR

Contact Hours: 1-6 + 0

Registration Restrictions: Admission to candidacy for the master of civil engineering degree.

Arranged between the advisor, project committee, and the student. The student is required to take an oral exam defending the project.

### CE A689 Cold Regions Pavement Design 3 CR

Contact Hours: 3 + 0

Prerequisites: CE A402 with minimum grade of C.

Major Restriction: Must be Arctic Engineering or Civil Engineering major.

Level Restriction: Must be Graduate - UAA level.

Registration Restrictions: Graduate standing in engineering or instructor permission.

Design of pavement structures, their maintenance and their rehabilitation in cold regions where challenges, such as frost, snow, and ice, threaten pavements' service lives.

### CE A698 Individual Research 1-6 CR

Contact Hours: 1-6 + 0

Registration Restrictions: Faculty permission.

A course to be designed between the student and faculty member to allow students the chance to pursue special advanced interests in engineering at the MS level.

### CE A699 Thesis 1-6 CR

Contact Hours: 1-6 + 0

Registration Restrictions: Graduate committee permission.

Individual study of an advanced engineering problem resulting in a thesis.

The student must have been admitted to candidacy for the master of science in civil engineering. The student must take an oral exam defending the thesis.

## CED - Community Education

Offered through Chugiak-Eagle River Campus

694-3313

[www.uaa.alaska.edu/ctc/programs/chugiak-eagleriver](http://www.uaa.alaska.edu/ctc/programs/chugiak-eagleriver)

### CED A110 Employment Development Planning 1 CR

Contact Hours: 1 + 0

Grade Mode: Pass/No Pass.

Offered only at Kenai Peninsula College.

Designed to encourage and prepare single parents/displaced homemakers to pursue an education and/or employment, by establishing goals and utilizing available resources. Includes communication skills, resume writing, interviewing techniques, self-image and problem solving techniques. Emphasis in goal setting and career planning.



<b>CED A115</b>	<b>Elderhostel: The Alaskan Adventure</b>	<b>1 CR</b>
Contact Hours: 1 + 0 Grade Mode: Pass/No Pass. Overview of components of the Alaskan adventure, history, natural history, anthropology, literature, geology. Emphasis on Kachemak Bay.		
<b>CED A119</b>	<b>Community Awareness Workshop on Domestic Violence and Sexual Assault</b>	<b>4 CR</b>
Contact Hours: 3 + 2 Grade Mode: Pass/No Pass. Offered only at Kenai Peninsula College. Introduces Women's Resource and Crisis Center services, domestic violence and sexual assault issues, and basic skills necessary for victim advocacy.		
<b>CED A125</b>	<b>Yoga: Study and Practice</b>	<b>1 CR</b>
Contact Hours: 0.5 + 1 Grade Mode: Pass/No Pass. A study of the health benefits of Hatha Yoga. Students practice the basic breathing, stretching, and relaxation techniques of yoga while learning of the effectiveness of this discipline in treating various health problems.		
<b>CED A126W</b>	<b>Yoga for Educators</b>	<b>1 CR</b>
Contact Hours: 1 + 0 Integrates Yoga techniques and strategies into the P-12 curriculum and applies yoga-based practices for enhanced learning/productivity and personal health/wellness.		
<b>CED A133</b>	<b>Beginning Fly Fishing</b>	<b>1 CR</b>
Contact Hours: 1 + 0 Grade Mode: Pass/No Pass. Introduces the basics of fly fishing, including selection of equipment, types of line, flies, and techniques geared toward local lakes and streams.		
<b>CED A150</b>	<b>Basic Japanese Cooking</b>	<b>1 CR</b>
Contact Hours: 1 + 0 Grade Mode: Pass/No Pass. An introduction to the foods, utensils, and techniques used in Japanese cooking.		
<b>CED A157</b>	<b>The Art and History of Brewing</b>	<b>1 CR</b>
Contact Hours: 1 + 0 Registration Restrictions: Must be 21 or older to enroll. Grade Mode: Pass/No Pass. Introduces the basic brewing process, the styles of beer, their historical and regional origins, and their presentation and pairing with food. Includes field trips to local breweries.		
<b>CED A160</b>	<b>Appreciating Opera</b>	<b>1 CR</b>
Contact Hours: 1 + 0 Introduces the major eras, composers, and styles of opera.		
<b>CED A171</b>	<b>Log Cabin Construction</b>	<b>1-3 CR</b>
Contact Hours: 1 + 1-6 Applies techniques and skills of log cabin construction. Covers planning and organization, estimating cost, and major phases of log building construction including foundation, floor, walls, roof, windows, doors and trim.		
<b>CED A185</b>	<b>Presenting Art Lessons in K-12</b>	<b>1 CR</b>
Contact Hours: 1 + 0 Grade Mode: Pass/No Pass. Focuses on methods for effective delivery of art concepts to school children using the Discipline-Based approach to arts education. Each student presents an art lesson in a K-12 classroom (Service Learning component).		
<b>CED A210</b>	<b>Crime Scene Investigation</b>	<b>2 CR</b>
Contact Hours: 2 + 0 Offered only at Kenai Peninsula College. Covers the fundamentals of investigation. Includes crime scene search and recording, collection and presentation of physical evidence, scientific aids, modus operandi, sources of information, interview and interrogations, follow-up and case preparation.		
<b>CED A231</b>	<b>Grant Proposal Writing</b>	<b>1 CR</b>
Contact Hours: 1 + 0 Grade Mode: Pass/No Pass. Offered only at Kenai Peninsula College. Presents an overview of funding sources and references, and provides an in-depth description of the components of a grant proposal.		

## CEL - Civic Engagement & Learning

*Offered through the College of Health & Social Welfare  
Consortium Library (LIB), Room 211G, 786-4062  
[www.uaa.alaska.edu/engage](http://www.uaa.alaska.edu/engage)*

<b>CEL A292</b>	<b>Introduction to Civic Engagement</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Course Attributes: UAA GER Social Sciences Requirement. Introduces students to types of civic engagement in a democracy, practices of engagement and inquiry, and public issues of ethics, environmental sustainability, community building and human and civil rights through readings, reflections and community inquiry.		
<b>CEL A390</b>	<b>Special Topics in Civic Engagement</b>	<b>1-3 CR</b>
Contact Hours: 1-3 + 0 Registration Restrictions: Completion of GER Tier 1 (basic college-level skills) courses. Special Note: May be repeated for credit with a change of subtitle up to a maximum of 9 credits. Variable topics course addressing current issues in civic engagement, a field of study which prepares students to be active, effective, and ethical citizens in their professional and personal lives. Topics of local, national, and international interest will be included.		
<b>CEL A395</b>	<b>Civic Engagement Internship</b>	<b>3-9 CR</b>
Contact Hours: 0-1 + 6-27 Registration Restrictions: Completion of GER Tier 1 (Basic college-level skills) courses and instructor approval. Special Fees. Internship in which student gains intensive experience applying principles of civic engagement and major-disciplinary knowledge and skills to a community-identified problem. Students are encouraged to do their internships in rural Alaskan or international communities.		
<b>CEL A450</b>	<b>Civic Engagement Capstone</b>	<b>3 CR</b>
Contact Hours: 2 + 2 Registration Restrictions: Completion of GER Tier 1 (basic college-level skills) and GER Tier II and instructor approval. Course Attributes: UAA GER Integrative Capstone. Special Fees. Integration of major and GER coursework through an individual civic engagement project.		

## CHEM - Chemistry

*Offered through the College of Arts and Sciences  
ConocoPhillips Integrated Sciences Building (CPSB), Room 101, 786-1238  
<http://chem.uaa.alaska.edu>*

<b>CHEM A055</b>	<b>Contemporary Chemistry</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: MATH A055. Introductory course for students with little or no chemistry background. Covers units of measurement, matter, atoms, periodic table, nomenclature, equations, oxidation-reduction, solutions, calculations, and problem solving.		
<b>CHEM A055L</b>	<b>Contemporary Chemistry Laboratory</b>	<b>1 CR</b>
Contact Hours: 0 + 3 Prerequisites: (CHEM A055 or concurrent enrollment). Special Fees. Laboratory designed to teach the fundamentals of working with laboratory equipment, data gathering, analysis, and reporting.		
<b>CHEM A103</b>	<b>Survey of Chemistry</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: MATH A105 with minimum grade of C. Registration Restrictions: CHEM A055 with a minimum grade of C or college preparatory high school chemistry with a minimum grade of C. If the MATH A105 prerequisite is not satisfied, appropriate scores on the SAT or ACT tests or appropriate scores on a UAA-approved placement test such as the Accuplacer Placement test. Course Attributes: UAA GER Natural Sciences Requirement. Special Note: This is an introductory course designed for health science majors and assumes prior knowledge of college preparatory high school chemistry and algebra. CHEM A103L is the laboratory component of this course and requires a separate registration. Survey of topics including: matter, energy, units of measurement, the periodic table, atomic and molecular structure, chemical bonding, radioactivity, oxidation-reduction reactions, solutions involving acids, bases and buffers; and an introduction to organic chemistry with units on functional groups and the chemistry of alkanes, alkenes, and alkynes.		

## Course Descriptions

**CHEM A103L Survey of Chemistry Laboratory 1 CR**  
Contact Hours: 0 + 3  
Prerequisites: (CHEM A103 or concurrent enrollment).  
Course Attributes: UAA GER Natural Sciences Lab Only.  
Special Fees.  
Special Note: Students who do not meet the prerequisites for this course may be administratively dropped at the discretion of the faculty. Attendance is mandatory for all chemistry laboratory courses the first week of class. Unless prior arrangements are made with the instructor, any student who does not attend the first scheduled meeting for this lab may be administratively dropped and a student on a waiting list will be added in their place. Any fees resulting from either of these drop procedures or any late registration procedure will be the responsibility of the student.

An introductory chemistry laboratory course with experiments designed to introduce students to the basics of laboratory equipment, data collection, data analysis, and reporting; and to illustrate, augment and apply concepts covered in CHEM A103.

**CHEM A104 Introduction to Organic Chemistry and Biochemistry 3 CR**  
Contact Hours: 3 + 0  
Prerequisites: CHEM A103 with minimum grade of C.  
Course Attributes: UAA GER Natural Sciences Requirement.  
Special Note: CHEM A104L is the lab component of this course and requires a separate registration.

This is the second semester course in the sequence for health science majors. The course content includes: common nomenclature of organic compounds, organic functional group reactions, biochemical processes and pathways, biological macromolecules and metabolites.

**CHEM A104L Introduction to Organic Chemistry and Biochemistry Laboratory 1 CR**  
Contact Hours: 0 + 3  
Prerequisites: CHEM A103 with minimum grade of C and (CHEM A104 or concurrent enrollment).  
Course Attributes: UAA GER Natural Sciences Lab Only.  
Special Fees.  
Special Note: CHEM A103L is highly recommended.

Special Note: Students who do not meet the prerequisites for this course may be administratively dropped at the discretion of the faculty. Attendance is mandatory for all chemistry laboratory courses the first week of class. Unless prior arrangements are made with the instructor, any student who does not attend the first scheduled meeting for this lab may be administratively dropped and a student on a waiting list will be added in their place. Any fees resulting from either of these drop procedures or any late registration procedure will be the responsibility of the student.

Second semester introductory chemistry laboratory course. Experiments are designed to reinforce concepts students have been exposed to regarding the basics of laboratory equipment, data collection, data analysis, and reporting. This course illustrates, augments, and applies concepts covered in CHEM A104.

**CHEM A105 General Chemistry I 3 CR**  
Contact Hours: 3 + 0  
Prerequisites: MATH A105 with minimum grade of C.  
Registration Restrictions: CHEM A055 with a minimum grade of C or college preparatory high school chemistry with a minimum grade of C. If the MATH A105 prerequisite is not satisfied, appropriate scores on the SAT or ACT tests or appropriate scores on a UAA-approved placement test such as the Accuplacer placement test.  
Course Attributes: UAA GER Natural Sciences Requirement.  
Special Note: Assumes prior knowledge of college preparatory high school chemistry and algebra. CHEM A105L is the lab component of this course and requires a separate registration.

Introduction to general chemistry for science majors which includes topics in elements and compounds, the periodic table, atomic and subatomic theory and spectroscopy, bonding, various chemical reactions, thermodynamics, atomic and molecular interactions in gases, liquids, solids and solution chemistry.

**CHEM A105L General Chemistry I Laboratory 1 CR**  
Contact Hours: 0 + 3  
Prerequisites: (CHEM A105 or concurrent enrollment).  
Course Attributes: UAA GER Natural Sciences Lab Only.  
Special Fees.  
Special Note: Students who do not meet the prerequisites for this course may be administratively dropped at the discretion of the faculty. Attendance is mandatory for all chemistry laboratory courses the first week of class. Unless prior arrangements are made with the instructor, any student who does not attend the first scheduled meeting for this lab may be administratively dropped and a student on a waiting list will be added in their place. Any fees resulting from either of these drop procedures or any late registration procedure will be the responsibility of the student.

An introductory chemistry laboratory course with experiments designed to introduce students to the basics of laboratory equipment, data collection, data analysis, and reporting; and to illustrate, augment and apply concepts covered in CHEM A105.

**CHEM A106 General Chemistry II 3 CR**  
Contact Hours: 3 + 0  
Prerequisites: CHEM A105 with minimum grade of C.  
Course Attributes: UAA GER Natural Sciences Requirement.  
Special Note: CHEM A106L is the laboratory component of this course and requires a separate registration.

The second semester in the general chemistry sequence for science majors. Topics include kinetics, equilibrium chemistry, acid-base chemistry, oxidation-reduction reactions, electrochemical cell chemistry, thermodynamics, nuclear chemistry, and chemical analysis methods.

**CHEM A106L General Chemistry II Laboratory 1 CR**  
Contact Hours: 0 + 3  
Prerequisites: CHEM A105L and (CHEM A106 or concurrent enrollment).  
Course Attributes: UAA GER Natural Sciences Lab Only.  
Special Fees.  
Special Note: Students who do not meet the prerequisites for this course may be administratively dropped at the discretion of the faculty. Attendance is mandatory for all chemistry laboratory courses the first week of class. Unless prior arrangements are made with the instructor, any student who does not attend the first scheduled meeting for this lab may be administratively dropped and a student on a waiting list will be added in their place. Any fees resulting from either of these drop procedures or any late registration procedure will be the responsibility of the student.

The second semester of this introductory chemistry laboratory course sequence. Experiments are designed to reinforce concepts students have been exposed to regarding the basics of laboratory equipment, data collection, data analysis, and reporting. This course illustrates, augments, and applies concepts covered in CHEM A106.

**CHEM A212 Quantitative Analysis 5 CR**  
Contact Hours: 3 + 6  
Prerequisites: CHEM A106 with minimum grade of C and CHEM A106L with minimum grade of C.  
Special Fees.

General principles of chemical analysis, including introduction to volumetric, gravimetric, and instrumental methods, theory, problems, and laboratory.

**CHEM A253 Principles of Inorganic Chemistry 3 CR**  
Contact Hours: 3 + 0  
Prerequisites: CHEM A106 with minimum grade of C.  
Study of structure and bonding of inorganic compounds with emphasis on molecular symmetry, d-metal complexes and catalysis.

**CHEM A311 Physical Chemistry: A Biological Orientation 3 CR**  
Contact Hours: 3 + 0  
Prerequisites: CHEM A212 with minimum grade of C and MATH A200 with minimum grade of C.

Designed to introduce the principles of physical chemistry to students primarily interested in the biochemical and biological aspects of chemistry. Topics of physical chemistry are presented from the viewpoint of their application to biochemical problems. Included are discussions of thermodynamics and biochemical energetics, properties of solutions and electrolytes, electrochemical applications to biological oxidation-reduction reactions, chemical and enzyme kinetics.

**CHEM A321 Organic Chemistry I 3 CR**  
Contact Hours: 3 + 0  
Prerequisites: CHEM A106 with minimum grade of C and CHEM A106L with minimum grade of C.

Investigates the chemistry of carbon compounds including alkanes, alkenes, alkynes, alkyl halides, and arenes. Discusses physical properties, nomenclature, synthesis, reactions, reaction mechanisms, and stereochemistry of these compounds.

<b>CHEM A322</b>	<b>Organic Chemistry II</b>	<b>3 CR</b>	<b>CHEM A442</b>	<b>Principles of Biochemistry II</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: CHEM A321 with minimum grade of C. Continuation of CHEM A321 which will include the study of spectroscopic techniques for structure determination, and the chemistry of alcohols, ethers, epoxides, thiols, sulfides, carbonyl compounds, amines, carbohydrates, and amino acids. Emphasizes nomenclature, physical properties, synthetic methods, and reaction mechanisms.			Contact Hours: 3 + 0 Prerequisites: CHEM A441 with minimum grade of C. May be stacked with: CHEM A642. Special Note: Students who complete CHEM A442 as part of their undergraduate degree cannot receive credit towards their graduate degree from CHEM A642. A study of the bioenergetics and their metabolic pathways of amino acids, proteins, carbohydrates, nucleic acids, and lipids.		
<b>CHEM A323L</b>	<b>Organic Chemistry Laboratory</b>	<b>2 CR</b>	<b>CHEM A443</b>	<b>Biochemistry Laboratory</b>	<b>2 CR</b>
Contact Hours: 0 + 6 Prerequisites: CHEM A321 with minimum grade of C and (CHEM A322 with minimum grade of C or concurrent enrollment). Corequisite: CHEM A322. Special Fees. Special Note: Concurrent enrollment in CHEM A322 is required unless completed with a minimum grade of C. Special Note: Students who do not meet the prerequisites for this course may be administratively dropped at the discretion of the faculty. Attendance is mandatory for all chemistry laboratory courses the first week of class. Unless prior arrangements are made with the instructor, any student who does not attend the first scheduled meeting for this lab may be administratively dropped and a student on a waiting list will be added in their place. Any fees resulting from either of these drop procedures or any late registration procedure will be the responsibility of the student. A practical implementation of the theory learned in CHEM A321 and A322. Purification techniques, spectroscopic methods, and synthetic methods of organic compounds will be taught.			Contact Hours: 0 + 6 Prerequisites: CHEM A441 with minimum grade of C and (CHEM A442 or concurrent enrollment). Special Fees. Laboratory course designed to provide instruction in modern biochemical laboratory techniques.		
<b>CHEM A331</b>	<b>Physical Chemistry I</b>	<b>3 CR</b>	<b>CHEM A450</b>	<b>Environmental Chemistry</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: CHEM A106 with minimum grade of C and CHEM A106L with minimum grade of C and MATH A202 with minimum grade of C and PHYS A212 with minimum grade of C and PHYS A212L with minimum grade of C. Special Note: MATH A302 is strongly recommended. A quantitative study of principles of thermodynamics, kinetic molecular theory of gases, and chemical kinetics. Applications to solutions, phase equilibria, chemical reactions and transport properties. A brief introduction to quantum mechanics and spectroscopy.			Contact Hours: 3 + 0 Registration Restrictions: Junior or senior standing in biology, chemistry, or engineering. Special Note: This course is an introduction to environmental chemistry for all science majors. The origin and evolution of the environment, energy, mineral resources, solid wastes, recycling, and the effects of foreign substances on living systems. Air and water pollution. Quantitative chemical principles will be applied. The interrelationships among these problems will be demonstrated.		
<b>CHEM A332</b>	<b>Physical Chemistry II</b>	<b>3 CR</b>	<b>CHEM A453</b>	<b>Advanced Inorganic Chemistry</b>	<b>5 CR</b>
Contact Hours: 3 + 0 Prerequisites: [CHEM A331 with minimum grade of C or PHYS A303 with minimum grade of C] and MATH A314 with minimum grade of C. Special Note: MATH A302 is strongly recommended. Principles of quantum mechanics with application to atomic and molecular structure and spectroscopy. Introduction to statistical mechanics.			Contact Hours: 3 + 6 Prerequisites: CHEM A253 with minimum grade of C and CHEM A332. Special Fees. A study of the structure, properties, reactions, and bonding of main group, d and f elements with emphasis on metals and solid state chemistry.		
<b>CHEM A333L</b>	<b>Physical Chemistry Lab</b>	<b>2 CR</b>	<b>CHEM A456</b>	<b>Nonlinear Dynamics and Chaos</b>	<b>3 CR</b>
Contact Hours: 0 + 6 Prerequisites: [CHEM A331 with minimum grade of C and (CHEM A332 with minimum grade of C or concurrent enrollment)] or [PHYS A403 with minimum grade of C and PHYS A413 with minimum grade of C]. Special Fees. A practical implementation of the theory learned in CHEM A331 and A332. Selected laboratory and computational experiments in thermodynamics, kinetics, transport phenomena, molecular and atomic structure.			Contact Hours: 3 + 0 Prerequisites: MATH A202 with minimum grade of C and [PHYS A124 with minimum grade of C or PHYS A212 with minimum grade of C]. Registration Restrictions: Completion of GER Tier 1 (basic college-level skills) courses and junior standing. Crosslisted with: BIOL A456 and PHYS A456. Course Attributes: UAA GER Integrative Capstone. An introduction to nonlinear dynamics and chaos. Concrete examples from physics, biology, chemistry, and engineering are used to develop analytical methods and geometric intuition. Topics covered include phase plane analysis, iterated maps, fractals, and strange attractors.		
<b>CHEM A434</b>	<b>Instrumental Methods</b>	<b>4 CR</b>	<b>CHEM A460</b>	<b>Chemical Ecotoxicology</b>	<b>3 CR</b>
Contact Hours: 2 + 6 Prerequisites: CHEM A212 with minimum grade of C. May be stacked with: CHEM A634. Special Fees. Techniques in operating new and specialized instruments for qualitative and quantitative analysis and analytical methods of an advanced nature. For students in chemistry and allied fields.			Contact Hours: 3 + 0 Prerequisites: CHEM A322. May be stacked with: CHEM A660. The study of the relationships between the observed levels of chemicals in the environment and their biological effects. Special attention will be given to persistent toxic compounds, the dependence of their fate on their physical and chemical properties, and the environmental conditions that regulate their breakdown, movement, transport, and ultimate fate.		
<b>CHEM A441</b>	<b>Principles of Biochemistry I</b>	<b>3 CR</b>	<b>CHEM A471</b>	<b>Immunochemistry</b>	<b>4 CR</b>
Contact Hours: 3 + 0 Prerequisites: BIOL A115 with minimum grade of C and CHEM A322 with minimum grade of C. Registration Restrictions: Junior standing. Completion of all GER Tier 1 (basic college-level skills) courses. Completion of seven credits of GER Tier 2 courses in the Natural Sciences including BIOL A115. May be stacked with: CHEM A641. Course Attributes: UAA GER Integrative Capstone. Special Note: Students who complete CHEM A441 as part of their undergraduate degree cannot receive credit towards their graduate degree from CHEM A641. A study of the structure and function of amino acids, proteins, carbohydrates, nucleic acids, lipids and membranes.			Contact Hours: 3 + 3 Prerequisites: BIOL A340 and CHEM A321. Crosslisted with: BIOL A471. A study of the immune response including the biochemistry of antibodies, cellular and molecular events triggered by antigenic stimulation, regulation, immunopathology, transplantation, cancer and immunochemical techniques.		
			<b>CHEM A492</b>	<b>Undergraduate Seminar</b>	<b>1 CR</b>
			Contact Hours: 1 + 0 Registration Restrictions: Admission to the chemistry degree program and faculty permission. Topical subjects in chemistry and biochemistry presented by undergraduate students.		
			<b>CHEM A498</b>	<b>Individual Research</b>	<b>3 CR</b>
			Contact Hours: 0 + 9 Registration Restrictions: Department permission. Special Fees. Research projects to be arranged with individual faculty members who will direct the study of research.		

## Course Descriptions

### CHEM A634 Advanced Instrumental Methods 4 CR

Contact Hours: 2 + 6

Prerequisites: CHEM A212.

May be stacked with: CHEM A434.

Special Fees.

Special Note: Not available for credit to students who have completed CHEM A434.

Lectures concurrent with CHEM A434. In addition to meeting all requirements for CHEM A434, graduate students will be required to develop an instrumental method, to submit a research paper summarizing their findings, including designs for future experiments on the subject and to give a seminar on the topic.

### CHEM A641 Advanced Biochemistry I 3 CR

Contact Hours: 3 + 0

Registration Restrictions: Graduate standing; A course in Organic Chemistry and a course in Biology, or instructor permission.

May be stacked with: CHEM A441.

Special Note: Not available for credit to students who have taken CHEM A441.

In depth study of the structure and function of amino acids, proteins, carbohydrates, nucleic acids, lipids, and membranes.

### CHEM A642 Advanced Biochemistry II 3 CR

Contact Hours: 3 + 0

Prerequisites: CHEM A641.

Registration Restrictions: Graduate standing

May be stacked with: CHEM A442.

Special Note: Not available for credit to students who have taken CHEM A442.

In depth study of the bioenergetics and the metabolic pathways of amino acids, proteins, carbohydrates, nucleic acids, and lipids.

### CHEM A660 Chemical Ecotoxicology 3 CR

Contact Hours: 3 + 0

Registration Restrictions: Graduate standing

May be stacked with: CHEM A460.

Special Note: In addition to meeting all the requirements for CHEM A460, graduate students will be required to submit an extensive research proposal addressing a current problem of significant concern to ecotoxicologists. The proposal must be presented to the entire class. Not available for credit to students who have completed CHEM A460.

The study of the relationships between the observed levels of chemicals in the environment and their biological effects. Special attention will be given to persistent toxic compounds, the dependence of their fate on their physical and chemical properties, and the environmental conditions that regulate their breakdown, movement, transport and ultimate fate.

## CHIN - Chinese

*Offered through the College of Arts and Sciences*

*Administration/Humanities Building (ADM) Suite 287, 786-4030*

[www.uaa.alaska.edu/languages](http://www.uaa.alaska.edu/languages)

### CHIN A101 First Year Chinese I 4 CR

Contact Hours: 4 + 0

Course Attributes: UAA GER Humanities Requirement.

Special Fees.

Introductory course for students with no previous knowledge of the Chinese language. Develops listening, speaking, reading, and writing skills in Chinese for effective communication at the elementary level. Introduces basic cross-cultural perspectives. Course conducted in Chinese.

### CHIN A102 First Year Chinese II 4 CR

Contact Hours: 4 + 0

Prerequisites: CHIN A101.

Course Attributes: UAA GER Humanities Requirement.

Special Fees.

Continuation of CHIN A101. Further develops elementary listening, speaking, reading, and writing skills in Chinese for effective communication. Enhances appreciation of cross-cultural perspectives. Course conducted in Chinese.

### CHIN A201 Second Year Chinese I 4 CR

Contact Hours: 4 + 0

Prerequisites: CHIN A102.

Course Attributes: UAA GER Humanities Requirement.

Special Fees.

Intermediate course for students with basic knowledge of Chinese. Enhances listening, speaking, reading and writing skills for effective communication at the second year level. Students critically examine diverse cultural perspectives. Course conducted in Chinese.

### CHIN A202 Second Year Chinese II 4 CR

Contact Hours: 4 + 0

Prerequisites: CHIN A201.

Course Attributes: UAA GER Humanities Requirement.

Continuation of first semester in second year Chinese. Further develops listening, speaking, reading and writing proficiency for effective communication and in preparation for advanced study of Chinese. Students interpret diverse cultural perspectives. Course conducted in Chinese.

## CIO - Computer Information & Office Systems

*Offered through the Community & Technical College*

*University Center (UC), Room 130, 786-6426*

[www.uaa.alaska.edu/ctc/programs/cet/cios](http://www.uaa.alaska.edu/ctc/programs/cet/cios)

### CIO A082 Clerical Accounting 3 CR

Contact Hours: 3 + 0 or 0 + 9

Special Fees.

Special Note: Offered as Demand Warrants.

Introduces accounting fundamentals using a service business to illustrate the basic accounting equation, closing the books, and preparing financial statements.

### CIO A101 Keyboarding 3 CR

Contact Hours: 3 + 0 or 0 + 9

Special Fees.

Special Note: Credit will not be counted for both CIO A101 and (CIO A101A and CIO A101B and CIO A101C).

Introduces keyboarding skills and emphasizes correct techniques and development of speed, accuracy, and proofreading. Introduces word processing concepts to produce personal and business letters, tables, and reports.

### CIO A101A Keyboarding A: Basic Keyboarding 1 CR

Contact Hours: 1 + 0 or 0 + 3

Special Fees.

Special Note: Credit will not be counted for both CIO A101 and (CIO A101A and CIO A101B and CIO A101C).

Introduces the keyboard alphabet, number, and symbol keys. Emphasizes techniques and mechanics of keyboarding by touch.

### CIO A101B Keyboarding B: Business Documents I 1 CR

Contact Hours: 1 + 0 or 0 + 3

Prerequisites: CIO A101A.

Special Fees.

Special Note: Credit will not be counted for both CIO A101 and (CIO A101A and CIO A101B and CIO A101C).

Introduces keyboarding of memos, personal and business letters, and envelopes in a word processing program and continues to develop keyboarding speed and accuracy.

### CIO A101C Keyboarding C: Business Documents II 1 CR

Contact Hours: 1 + 0 or 0 + 3

Prerequisites: CIO A101B.

Special Fees.

Special Note: Credit will not be counted for both CIO A101 and (CIO A101A and CIO A101B and CIO A101C).

Introduces keyboarding of simple reports and tables in a word processing program and continues to develop keyboarding speed and accuracy.

### CIO A102 Keyboarding Skill Building 1 CR

Contact Hours: 0 + 3

Prerequisites: CIO A101A.

Grade Mode: Pass/No Pass.

Special Fees.

Special Note: May be repeated with only 1 credit in each semester.

Emphasizes development of keyboarding speed and accuracy.

### CIO A103 Introduction to Personal Computers 1 CR

Contact Hours: 1 + 0 or 0 + 3

Grade Mode: Pass/No Pass.

Special Fees.

Introduces personal computers to novice users. Includes basics of start-up and using the mouse to perform Windows operations.

### CIO A108 Digital Design Fundamentals 1 CR

Contact Hours: 1 + 0 or 0 + 3

Prerequisites: CIO A113 and CIO A130A.

Special Fees.

Introduces design fundamentals as they apply to using desktop publishing, image editing, and web design applications to communicate through online or print media.

<b>CIOS A113</b>	<b>Operating Systems: MS Windows</b>	<b>1 CR</b>	<b>CIOS A152A</b>	<b>Digital Imaging Concepts and Applications: Photoshop</b>	<b>3 CR</b>
Contact Hours: 1 + 0 or 0 + 3 Special Fees. Introduces the MS Windows operating system. Includes file and disk management, the control panel, desktop, utilities, MS Windows setup, and maintenance.			Contact Hours: 3 + 0 Prerequisites: (CIOS A108 or concurrent enrollment) and (CIOS A130A or concurrent enrollment) and (CIOS A146 or concurrent enrollment). Special Fees. Introduces the fundamentals, concepts, and applications of digital imaging techniques, including basic digital design fundamentals, enhancing images, and creating images for use in print or on the web.		
<b>CIOS A115</b>	<b>10-Key for Business Calculations</b>	<b>2 CR</b>	<b>CIOS A153A</b>	<b>Website Design: HTML</b>	<b>1 CR</b>
Contact Hours: 0 + 6 Registration Restrictions: Proof of placement into MATH A055. Special Fees. Introduces the 10-key touch control method to solve business-related calculations while developing speed and accuracy.			Contact Hours: 1 + 0 or 0 + 3 Prerequisites: CIOS A146. Special Fees. Introduces designing web pages and documents using Hypertext Markup Language (HTML). Emphasizes sound design principles and the use of CSS for formatting and layout.		
<b>CIOS A116</b>	<b>Business Calculations</b>	<b>3 CR</b>	<b>CIOS A153B</b>	<b>Website Design: Dreamweaver</b>	<b>3 CR</b>
Contact Hours: 3 + 0 or 0 + 9 Prerequisites: [MATH A054 with minimum grade of C or ASSET Numerical Skills with score of 43]. Special Fees. Introduces business calculations and use of calculators by touch to solve problems in bank records, payroll, trade and cash discounts, mark-up and markdown, interest, consumer credit, depreciation, inventory, financial statements, insurance, and taxes.			Contact Hours: 3 + 0 Prerequisites: CIOS A130A and CIOS A146 and [(CIOS A152A or concurrent enrollment) or (CIOS A156 or concurrent enrollment)]. Special Fees. Introduces fundamentals of web design using the Dreamweaver application. Emphasizes sound design principles and the use of CSS for formatting and layout.		
<b>CIOS A118</b>	<b>Payroll Procedures</b>	<b>2 CR</b>	<b>CIOS A153C</b>	<b>Web Site Design: MS FrontPage</b>	<b>1 CR</b>
Contact Hours: 2 + 0 or 0 + 6 Special Fees. Introduces payroll procedures including calculating various types of payroll, keeping payroll records, federal laws, and reporting procedures.			Contact Hours: 1 + 0 or 0 + 3 Prerequisites: CIOS A113. Special Fees. Introduces planning, designing, and creation of a website. Covers basic Microsoft FrontPage commands and functions.		
<b>CIOS A120A</b>	<b>Bookkeeping Software Applications I: QuickBooks</b>	<b>1 CR</b>	<b>CIOS A154A</b>	<b>Desktop Publishing I: PageMaker</b>	<b>1 CR</b>
Contact Hours: 1 + 0 or 0 + 3 Prerequisites: CIOS A101A and CIOS A113. Special Fees. Special Note: Knowledge of bookkeeping principles is recommended. Introduces the QuickBooks accounting program. Covers basic bookkeeping procedures for company setup and maintenance, data input for check register, accounts receivable, accounts payable, banking, and sales tax.			Contact Hours: 1 + 0 or 0 + 3 Prerequisites: CIOS A101A. Special Fees. Introduces fundamentals and concepts of desktop publishing and design elements used to create a variety of documents for publication, including flyers, brochures, and newsletters.		
<b>CIOS A125A</b>	<b>Electronic Communications I: MS Outlook</b>	<b>1 CR</b>	<b>CIOS A154B</b>	<b>Desktop Publishing I: MS Publisher</b>	<b>1 CR</b>
Contact Hours: 1 + 0 or 0 + 3 Prerequisites: CIOS A101A and CIOS A113. Special Fees. Introduces electronic communication and time management features of Microsoft Outlook.			Contact Hours: 1 + 0 or 0 + 3 Prerequisites: CIOS A101A. Special Fees. Special Note: Students are strongly encouraged to complete CIOS A254B to gain a fuller understanding of this topic. Introduces fundamentals and concepts of desktop publishing and design elements used to create a variety of documents for publication, including flyers, brochures, and newsletters.		
<b>CIOS A130A</b>	<b>Word Processing I: MS Word</b>	<b>1 CR</b>	<b>CIOS A156</b>	<b>Web Graphics: Fireworks</b>	<b>1 CR</b>
Contact Hours: 1 + 0 or 0 + 3 Prerequisites: (CIOS A101A or concurrent enrollment). Special Fees. Introduces fundamentals, concepts, and applications of word processing. Students learn basic commands needed to create, format, edit, and print documents.			Contact Hours: 1 + 0 or 0 + 3 Prerequisites: CIOS A130A and CIOS A146 and [(CIOS A153A or concurrent enrollment) or (CIOS A153B or concurrent enrollment)]. Special Fees. Introduces the concepts and skills for creating and optimizing web graphics such as animated GIFs, slices, and image maps.		
<b>CIOS A135A</b>	<b>Spreadsheets I: MS Excel</b>	<b>1 CR</b>	<b>CIOS A160</b>	<b>Business English</b>	<b>3 CR</b>
Contact Hours: 1 + 0 or 0 + 3 Prerequisites: (CIOS A101A or concurrent enrollment) and (CIOS A113 or concurrent enrollment). Special Fees. Introduces fundamental concepts in the design and use of spreadsheets. Includes basic commands, formulas and functions, and inserting of charts, objects, and hyperlinks.			Contact Hours: 3 + 0 Prerequisites: [PRPE A086 with minimum grade of C or ASSET Writing Skills with score of 40]. Special Fees. Special Note: Recommend CIOS A161A and CIOS A260A. Analyzes sentence structure and usage in business communications for application to proofreading and editing documents.		
<b>CIOS A140A</b>	<b>Databases I: MS Access</b>	<b>1 CR</b>	<b>CIOS A161A</b>	<b>Proofreading</b>	<b>2 CR</b>
Contact Hours: 1 + 0 or 0 + 3 Prerequisites: CIOS A101A and CIOS A113. Special Fees. Introduces the fundamentals and concepts of creating a relational database including tables, queries, forms, and reports.			Contact Hours: 2 + 0 or 0 + 4 Registration Restrictions: Proof of placement into ENGL A111 and keyboarding skills of 30 net words per minute or higher. Special Fees. Introduces proofreading techniques applied to business communication. Develops skills in proofreading for content, usage, grammar, punctuation, and spelling.		
<b>CIOS A146</b>	<b>Internet Concepts and Applications</b>	<b>2 CR</b>	<b>CIOS A162A</b>	<b>Shorthand</b>	<b>3 CR</b>
Contact Hours: 1 + 2 or 0 + 4 Prerequisites: CIOS A101A and CIOS A113. Special Fees. Introduces and applies Internet concepts, tools, and applications. Includes use of electronic mail, search strategies for research, academic, and personal use, the study of security and ethics issues, and new Internet technologies.			Contact Hours: 3 + 0 or 0 + 9 Prerequisites: CIOS A101A. Special Fees. Introduces an alphabetic shorthand system designed for fast note taking or dictation.		
<b>CIOS A150A</b>	<b>Presentations: MS PowerPoint</b>	<b>2 CR</b>			
Contact Hours: 1 + 2 or 0 + 4 Prerequisites: CIOS A101A and CIOS A113. Special Fees. Covers presentation software and design techniques for creating professional presentations. Incorporates tools for enhancing presentations with various objects.					

## Course Descriptions

<b>CIOS A164</b>	<b>Filing</b>	<b>1 CR</b>	<b>CIOS A240A</b>	<b>Databases II: MS Access</b>	<b>2 CR</b>
Contact Hours: 1 + 0 or 0 + 3 Special Fees. Introduces filing terminology, techniques, and ARMA (American Records Management Association) filing rules as they apply to alphabetic, numeric, subject, and geographic filing systems.			Contact Hours: 2 + 0 or 0 + 6 Prerequisites: CIOS A140A. Special Fees. Presents concepts and techniques for using Access databases to solve problems and make decisions. Includes advanced features of queries, forms, filters, relationships, and integration with other applications.		
<b>CIOS A165</b>	<b>Office Procedures</b>	<b>3 CR</b>	<b>CIOS A241</b>	<b>Integrated Applications</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: CIOS A101B and CIOS A130A. Special Fees. Introduces the duties and responsibilities of office employees in the following areas: mail, records management, office communications, reprographics, travel, meetings, conferences, and employment procedures.			Contact Hours: 3 + 0 or 0 + 9 Prerequisites: CIOS A151A and [CIOS A230A or CIOS A230B] and CIOS A235A and CIOS A240A. Special Fees. Applies the powerful integration capabilities of word processing, spreadsheet, database, and other applications, including the World Wide Web. Builds skill in application integration through a variety of projects that include using critical thinking, work organization, time management, and teamwork skills.		
<b>CIOS A190</b>	<b>Selected Topics in Office Technology</b>	<b>1-3 CR</b>	<b>CIOS A251A</b>	<b>Desktop Publishing Concepts and Applications: InDesign</b>	<b>3 CR</b>
Contact Hours: 1-3 + 0 or 0 + 3-9 Special Fees. Special Note: Prerequisites will vary with topic. Covers various topics in office technology. Course content is determined by specific student or industry needs.			Contact Hours: 3 + 0 or 0 + 9 Prerequisites: (CIOS A108 or concurrent enrollment) and (CIOS A130A or concurrent enrollment). Special Fees. Presents fundamental digital design techniques and the utilization of desktop publishing software to generate professional publications.		
<b>CIOS A201A</b>	<b>Document Processing</b>	<b>3 CR</b>	<b>CIOS A254B</b>	<b>Desktop Publishing II: MS Publisher</b>	<b>2 CR</b>
Contact Hours: 3 + 0 or 0 + 9 Prerequisites: CIOS A101. Special Fees. Applies keyboarding and word processing skills to letters, mail merges, tabulations, reports, business forms, and other office documents while building speed and accuracy.			Contact Hours: 2 + 0 or 0 + 6 Prerequisites: CIOS A154B. Special Fees. Applies skills learned in CIOS A154B to more advanced desktop publishing concepts and techniques. Presents design techniques and the use of desktop publishing software to generate sophisticated publications. Topics include scanning, graphic formats, typography, and integration with other applications.		
<b>CIOS A207</b>	<b>Machine Transcription</b>	<b>1 CR</b>	<b>CIOS A255</b>	<b>Multimedia Applications</b>	<b>3 CR</b>
Contact Hours: 0 + 3 Prerequisites: [CIOS A101B or CIOS A101C] and CIOS A161A. Special Fees. Applies word processing and proofreading skills to create quality documents using transcription equipment. Designed for students with no previous transcription experience.			Contact Hours: 3 + 0 or 0 + 9 Prerequisites: CIOS A130A and CIOS A135A and CIOS A150A. Special Fees. Applies computer skills to learn how to manipulate sound, digital video, and digital photography to create a multimedia presentation.		
<b>CIOS A208</b>	<b>Medical Transcription</b>	<b>3 CR</b>	<b>CIOS A259</b>	<b>Preparing Electronic Documents: Adobe Acrobat</b>	<b>1 CR</b>
Contact Hours: 0 + 9 Prerequisites: [CIOS A101B or CIOS A101C] and CIOS A161A. Special Fees. Applies word processing and proofreading skills to machine transcription of medical dictation to produce accurate, quality documents. Designed for students with no previous transcription experience. Students will learn needed medical terminology.			Contact Hours: 1 + 0 or 0 + 3 Prerequisites: CIOS A130A and (CIOS A146 or concurrent enrollment). Special Fees. Covers publishing documents in portable document format, and designing and creating forms and documents that can be emailed, uploaded, and accessed on the World Wide Web, placed on intranet file systems, or permanently stored on various media storage devices.		
<b>CIOS A209A</b>	<b>Legal Transcription</b>	<b>1-3 CR</b>	<b>CIOS A260A</b>	<b>Business Communications</b>	<b>3 CR</b>
Contact Hours: 0 + 3-9 Prerequisites: CIOS A160 and CIOS A201A. Registration Restrictions: Prerequisite or demonstrated equivalent skill and speed of 45 wpm. Special Fees. Applies word processing and business English skills to machine transcription of legal dictation to produce accurate legal documents. Designed for students with no previous transcription experience.			Contact Hours: 3 + 0 Prerequisites: ENGL A111. Registration Restrictions: Keyboarding and word processing skills, knowledge of document formats, or instructor permission. Special Fees. Applies communication principles to creating business messages that involve problem solving and human relations issues. Topics include communications foundations, the writing process, workplace correspondence and reporting data, and communicating both personally and digitally.		
<b>CIOS A220A</b>	<b>Bookkeeping Software Applications II: QuickBooks</b>	<b>2 CR</b>	<b>CIOS A261A</b>	<b>Interpersonal Skills in Organizations</b>	<b>3 CR</b>
Contact Hours: 2 + 0 or 0 + 6 Prerequisites: CIOS A120A. Special Fees. Applies skills learned in CIOS A120A to more advanced applications of creating financial reports, period-end procedures, payroll, inventory, jobs and time tracking, accounting issues, and integration with other software.			Contact Hours: 3 + 0 Prerequisites: CIOS A165. Special Fees. Examines theories and practices of human behavior in the workplace. Emphasizes leadership theory, problems in communication and motivation, and interpersonal skills that enhance the ability to function successfully with others in an organization.		
<b>CIOS A230A</b>	<b>Word Processing II: MS Word</b>	<b>2 CR</b>	<b>CIOS A262A</b>	<b>Professional Development</b>	<b>3 CR</b>
Contact Hours: 2 + 0 or 0 + 6 Prerequisites: CIOS A130A. Special Fees. Presents intermediate and advanced word processing and desktop publishing. Includes styles, graphics, merging documents, object linking and embedding, publishing as a web page, working with master documents, indexes, table of contents, on-screen business forms and macros.			Contact Hours: 3 + 0 Special Fees. Examines how to assess personal talents and career goals to develop appropriate cover letters, resumes, and portfolios. Emphasizes job search techniques, preparing to be successful during interviews and how to be successful on the job.		
<b>CIOS A235A</b>	<b>Spreadsheets II: MS Excel</b>	<b>2 CR</b>			
Contact Hours: 2 + 0 or 0 + 6 Prerequisites: CIOS A135A. Special Fees. Presents concepts and techniques for using Excel to solve problems and make decisions. Topics include design and construction of spreadsheets and templates, macros, data exchange, database features, enhancing charts, and other advanced functions.					

**CIOS A264A**                    **Records Management**                    **2 CR**  
 Contact Hours: 2 + 0 or 0 + 6  
 Prerequisites: CIOS A140A and CIOS A164.  
 Special Fees.

Applies principles learned in CIOS A164 to management of information and records. Covers the field of records management, legal and ethical issues, and controls and technology related to creation, use, maintenance, protection, retrieval, and disposition of paper and electronic records.

**CIOS A265**                    **Office Management**                    **3 CR**  
 Contact Hours: 3 + 0 or 0 + 9  
 Prerequisites: CIOS A165 and CIOS A260A.  
 Special Fees.

Examines workplace trends, management techniques, communication, conflict resolution, ethics, diversity, technology, legal issues, and the changing roles of the administrative professional.

**CIOS A267**                    **Law Office Procedures: Client Documents**                    **3 CR**  
 Contact Hours: 3 + 0  
 Prerequisites: CIOS A201A and [CIOS A230A or CIOS A230B].  
 Special Fees.  
 Special Note: Students are encouraged to complete the complementary course, CIOS A266.

Applies word processing and computer skills to preparation of legal documents in the areas of corporate, family, probate, real estate, and bankruptcy law with emphasis on accuracy, style, and understanding the purpose of the documents. Studies legal procedures and legal vocabulary in these areas and examines law office organization and legal ethics.

**CIOS A269**                    **Alaska Rules of Civil Procedures**                    **3 CR**  
 Contact Hours: 3 + 0  
 Special Fees.

Studies Alaska Rules of Civil Procedure and Alaska Rules of Appellate Procedure in depth as they apply particularly to lawyers' assistants working with litigation documents.

**CIOS A270**                    **Project Management Fundamentals**                    **2 CR**  
 Contact Hours: 2 + 0  
 Special Fees.

Introduces project management fundamentals and develops skills required to contribute as a project team member and leader of small projects that are related to a student's area of technical expertise. Topics include project planning and design, project team skills, project implementation and reporting, and project completion.

**CIOS A276A**                    **Independent Project**                    **1-3 CR**  
 Contact Hours: 0 + 3-9  
 Registration Restrictions: 12 credits in CIOS courses and instructor permission.  
 Grade Mode: Pass/No Pass.  
 Special Fees.  
 Special Note: Advanced knowledge of CIOS topics required.

Focuses on developing, implementing and completing a project based on a current business need or issue. Students work closely with faculty to produce an end product and report.

**CIOS A295**                    **Office Internship**                    **1-3 CR**  
 Contact Hours: 0 + 3-9  
 Prerequisites: CIOS A165.  
 Registration Restrictions: Minimum of 12 CIOS credits and instructor permission.  
 Grade Mode: Pass/No Pass.  
 Special Fees.

Special Note: Requires 45 hours of work experience for each credit.  
 Places students in business offices related to their educational program and occupational objectives. Includes conference with faculty coordinator.

## CIS - Computer Information Systems

*Offered through the College of Business & Public Policy  
 Edward & Cathryn Rasmuson Hall (RH), Room 203, 786-4100  
[www.cbpp.uaa.alaska.edu/cis.asp](http://www.cbpp.uaa.alaska.edu/cis.asp)*

Students taking any ACCT, BA, CIS, ECON, LGOP, LOG or PADM course will be charged a single lab fee of \$25 for the semester. Applies to Elmendorf Air Force Base or Fort Richardson classes only when specifically noted on UAOnline. Does not apply to Chugiak-Eagle River classes.

**CIS A105**                    **Introduction to Personal Computers and Application Software**                    **3 CR**

Contact Hours: 3 + 0  
 Registration Restrictions: Keyboarding skill of 30 wpm or better is recommended.  
 Introduction to computer literacy emphasizing basic hands-on use of personal computers, operating systems, and application software to include word processing, spreadsheets, databases, presentation graphics, and the Internet.

**CIS A110**                    **Computer Concepts in Business**                    **3 CR**  
 Contact Hours: 3 + 0  
 Registration Restrictions: Recommended: MATH A105, CIS A105, familiarity with personal computers and basic software applications, and keyboarding of at least 30 wpm.

Introduction to computing concepts and productivity software from an end user's perspective. Course covers hardware, software, the information processing cycle, beginning programming concepts, and personal computer software packages. The course emphasizes solving business problems using spreadsheet and database applications.

**CIS A210**                    **Contemporary Business Applications Development**                    **3 CR**

Contact Hours: 3 + 0  
 Prerequisites: CIS A110 with minimum grade of C and [MATH A107 with minimum grade of C or MATH A172 with minimum grade of C].  
 Registration Restrictions: If prerequisite is not satisfied, approved UAA mathematics placement test score and current programming experience are required.

Business application development using contemporary technologies and programming languages. Design of user interfaces and integration with other development platforms such as spreadsheets and databases.

**CIS A280**                    **Managerial Communications**                    **3 CR**

Contact Hours: 2 + 2  
 Prerequisites: CIS A110 with minimum grade of C and [COMM A111 with minimum grade of C or COMM A241 with minimum grade of C] and ENGL A212 with minimum grade of C.  
 Registration Restrictions: BBA students with a catalog year earlier than 2010-2011 must take CIS A305 Managerial Presentations in lieu of CIS 280.

Focuses on improving writing, presentation, and teamwork skills within a managerial environment. Emphasizes the development of professional communication strategies based on audience analysis techniques. Lab sessions provide practical, hands-on exercises with emphasis on collaborative report writing and managerial presentations.

**CIS A295**                    **Computer Programming Internship**                    **1-6 CR**

Contact Hours: 0 + 3-18  
 Prerequisites: CIS A210 with minimum grade of C.  
 Registration Restrictions: Department permission required. Student must be in good standing in the College of Business and Public Policy. Cumulative GPA of 2.75 or higher.  
 Grade Mode: Pass/No Pass.  
 Special Fees.  
 Special Note: Requires 75 hours of work experience for each credit. May be repeated once for credit. Maximum of 3 internship credits may be used to meet degree requirements.  
 Computer programming and/or end-user support work to include maintenance of information equipment, networks, and software experience in a faculty-approved position.

**CIS A305**                    **Managerial Presentations**                    **3 CR**

Contact Hours: 3 + 0  
 Prerequisites: CIS A110 with minimum grade of C and ENGL A212 with minimum grade of C and ENGL A212.  
 Registration Restrictions: College of Business and Public Policy majors must be admitted to upper-division standing. BBA students with a catalog year earlier than 2010-2011 must take CIS A305 in lieu of CIS A280.

Focuses on quality managerial communications in a business environment. Uses computer software to create and refine presentation visuals and written assignments. Course strategies and organizational plans for composing business communications; for creating attractive documents and visuals; and how to effectively use projected visuals in oral presentations.

**CIS A310**                    **Analysis of Business Systems**                    **3 CR**

Contact Hours: 3 + 0  
 Prerequisites: CIS A210 with minimum grade of C and CIS A305 with minimum grade of C.  
 Registration Restrictions: College of Business and Public Policy majors must be admitted to upper-division standing. Associate of Applied Science, BCIS students may register with instructor approval.

Presents an overview of systems analysis concepts and computer-based tools for use in the analysis of business information systems. Directed toward the development of communication skills needed for determining business system requirements and conveying those requirements to developers and system stakeholders. Concepts and tools will be applied to community-based, student-led projects.

## Course Descriptions

### **CIS A326 Information Age Literacy 3 CR**

Contact Hours: 3 + 0

Prerequisites: COMM A111 or COMM A241.

Registration Restrictions: Completion of all GER Tier 1 (basic college-level skills) courses and Junior-level standing. Three credits of Tier 2 GER in Social Sciences. Course Attributes: UAA GER Integrative Capstone.

Special Note: Course credits may not be applied toward any College of Business & Public Policy baccalaureate degree.

Analyzes the historical, current, and future implications of information systems and emerging technologies on society. Discusses information literacy concepts with a focus on e-commerce and globalization issues. Students debate the use and abuse of technology as it interacts with traditional cultural norms and within the legal framework.

### **CIS A330 Database Management Systems 3 CR**

Contact Hours: 3 + 0

Prerequisites: CIS A210 with minimum grade of C.

Registration Restrictions: BBA students must be admitted to upper-division standing.

Covers principles of database management systems including concepts and design, methods of file organization, data structures, query languages, and micro to client/server database environments. Students will be expected to design and implement a database project during the semester.

### **CIS A345 Managing Data Communications and Computer Networks 3 CR**

Contact Hours: 3 + 0

Prerequisites: CIS A210.

Registration Restrictions: College of Business & Public Policy majors must be admitted to upper-division standing.

Introduces the rapidly changing environment of data communications over local area networks and over switched and private voice lines. Focuses on the control and management of data in a distributed environment, the technology issues associated with data communications, and current trends in the industry.

### **CIS A360 Object-Oriented Programming in .Net 3 CR**

Contact Hours: 3 + 0

Prerequisites: CIS A210 and CIS A305 and (CIS A330 or concurrent enrollment) and CIS A376.

Registration Restrictions: College of Business & Public Policy majors must be admitted to upper-division standing.

Intermediate object-oriented development of Windows-based applications within the .Net environment. Assumes beginning object-oriented programming and database experience. Programming language may vary between Visual Basic, C#, and other .Net compatible languages.

### **CIS A361 Advanced Contemporary Business Applications Development 3 CR**

Contact Hours: 3 + 0

Prerequisites: CIS A210 with minimum grade of C.

Registration Restrictions: College of Business and Public Policy majors must be admitted to upper-division standing.

Develops business applications using contemporary technologies and programming languages at an advanced level. Designs user interfaces and integrates them with other platforms such as spreadsheets and databases.

### **CIS A365 Object-Oriented Programming 3 CR**

Contact Hours: 3 + 0

Prerequisites: CIS A210 with minimum grade of C.

Registration Restrictions: College of Business & Public Policy majors must be admitted to upper-division standing.

Covers basic concepts of Object-Oriented (OO) programming languages. Some of the recent relevant developments and applications will be discussed. The OO programming languages such as C++ or Java will be used as vehicles for illustrating the concepts discussed in the course. OO programming design and programming development patterns will be covered. Students will analyze and solve business problems and practice writing programs for business applications using a chosen programming language.

### **CIS A375 E-Training Design and End-User Support 3 CR**

Contact Hours: 2 + 2

Prerequisites: CIS A110.

Registration Restrictions: College of Business and Public Policy majors must be admitted to upper-division standing.

Special Note: This course requires 30 hours of lab.

Analyzes and applies the theories and strategies associated with technology-based workplace training and consulting. Course projects advance and integrate competencies in communications skills and computer technical skills obtained in prior courses.

### **CIS A376 Management Information Systems 3 CR**

Contact Hours: 3 + 0

Prerequisites: CIS A305 or COMM A241.

Registration Restrictions: BBA students must be admitted to upper-division standing. Completion of GER Tier 1 (basic college-level skills) courses and junior standing.

Course Attributes: UAA GER Integrative Capstone.

Analysis of the historical, current, and future implications of Information Systems (IS). Examination of the societal implications of emerging technologies, with emphasis on security, privacy, and ethics. Focus on e-commerce and globalization issues.

### **CIS A385 Multimedia Authoring 3 CR**

Contact Hours: 2 + 2

Prerequisites: CIS A110.

Registration Restrictions: College of Business and Public Policy majors must be admitted to upper-division standing.

Special Note: This course requires 30 hours of lab.

Provides opportunities for the exploration of multimedia authoring using a variety of software tools. Stresses design theory and the integration of various multimedia forms into a coherent business product.

### **CIS A390 Selected Topics in Management Information Systems 1-6 CR**

Contact Hours: 1-6 + 0

Prerequisites: CIS A210 with minimum grade of C.

Registration Restrictions: College of Business & Public Policy majors must be admitted to upper-division standing.

Special Note: May be repeated with change of subtitle/topic. Maximum of 9 elective credits may be used for the BBA MIS degree. Check course schedule for specific titles being offered.

Study of specific current issues, techniques, and trends in Management Information Systems (MIS).

### **CIS A395 Programmer/Analyst Internship 3 CR**

Contact Hours: 0 + 6-9

Prerequisites: CIS A210 with minimum grade of C.

College Restriction: Must be in UAA College of Business and Public Policy.

Registration Restrictions: Department permission required. Student must be in good standing in the College of Business and Public Policy. Cumulative GPA of 2.75 or higher.

Grade Mode: Pass/No Pass.

Special Fees.

Special Note: Requires 75 hours of work experience for each credit. May be taken more than once up to a maximum of 6 credits. Maximum of 3 internship credits may be used to meet degree requirements.

Computer programmer/analyst work experience in a faculty approved position.

### **CIS A410 Project Management 3 CR**

Contact Hours: 3 + 0

Prerequisites: CIS A310 with minimum grade of C and CIS A330 with minimum grade of C and CIS A376 with minimum grade of C.

Registration Restrictions: College of Business and Public Policy majors must be admitted to upper-division standing.

Essentials of planning, scheduling, and managing information system projects; risk assessment and risk management; and project management tools. Involves students in the development of a project plan for a community-based information system development project.

### **CIS A430 Client-Server Programming for Business Applications 3 CR**

Contact Hours: 3 + 0

Prerequisites: CIS A210 with minimum grade of C and CIS A330 with minimum grade of C and CIS A376 with minimum grade of C.

Registration Restrictions: College of Business and Public Policy majors must be admitted to upper-division standing.

Covers basic client-server system concepts and business application development using client-server development tools. Students will write advanced business application programs using client-server design and development tools with programming languages in order to interface with Database Management System (DBMS) software for interactive processing. Emphasis on application development, program design, program testing, and certification in the client-server environment.



**CIS A445      Advanced Network Management      3 CR**

Contact Hours: 3 + 0

Prerequisites: CIS A345.

College Restriction: Must be in UAA College of Business and Public Policy.

Registration Restrictions: College of Business and Public Policy majors must be admitted to upper-division standing.

Provides practical knowledge about the installation, configuration, administration, and operation of networks in local area and wide area settings. The operation and interconnectivity between commercially available software will be explored as well as the utilization of different communication protocols on the same network.

**CIS A460      Web Development in the .Net Environment      3 CR**

Contact Hours: 3 + 0

Prerequisites: CIS A210 with minimum grade of C and CIS A376 with minimum grade of C.

Registration Restrictions: College of Business and Public Policy majors must be admitted to upper-division standing.

Special Note: Assumes previous programming experience with XHTML and CSS.

Development of data-driven web applications within the .Net environment. Uses ASP.Net and C# as the development environment.

**CIS A489      Systems Design, Development and Implementation      3 CR**

Contact Hours: 3 + 0

Prerequisites: CIS A376 with minimum grade of C and CIS A410 with minimum grade of C and [CIS A365 with minimum grade of C or CIS A430 with minimum grade of C or CIS A460 with minimum grade of C].

Registration Restrictions: College of Business and Public Policy majors must be admitted to upper-division standing.

Engages students in the design, development and implementation of an information system project. Students working in small teams integrate and apply MIS concepts and skills, conduct independent research, develop an implementable system for a community organization, and present written and oral reports.

**CIS A495      Systems Analyst/User Support Internship      3 CR**

Contact Hours: 0 + 6-9

Prerequisites: CIS A210 with minimum grade of C and CIS A376 with minimum grade of C.

College Restriction: Must be in UAA College of Business and Public Policy.

Registration Restrictions: Department permission required. Student must be in good standing in the College of Business and Public Policy. Cumulative GPA of 2.75 or higher.

Grade Mode: Pass/No Pass.

Special Fees.

Special Note: Requires 75 hours of work experience for each credit. May be taken more than once up to a maximum of 6 credits. Maximum of 3 internship credits may be used to meet degree requirements.

Systems analyst or user-support work experience in a faculty approved position.

**CIS A498      Individual Research Project      1-6 CR**

Contact Hours: 1-6 + 0

Prerequisites: CIS A361 with minimum grade of C and CIS A376 with minimum grade of C.

Registration Restrictions: College of Business and Public Policy majors must be admitted to upper division standing.

Special Note: May be taken more than once for credit. Maximum of 3 credits may be used to meet degree requirements.

In a simulated professional environment, students complete an MIS project, prepare a project report, and make a managerial presentation.

**CIS A690      Selected Topics in Management Information Systems      3 CR**

Contact Hours: 3 + 0

Prerequisites: CIS A692.

Registration Restrictions: Graduate standing.

Special Note: May be repeated with change of subtitle/topic. Check course schedule for specific titles being offered. Maximum of 9 elective credits may be used for the MBA degree.

Study of specific current issues, techniques, and trends in Management Information Systems (MIS).

**CIS A692      Management Information Systems Seminar      3 CR**

Contact Hours: 3 + 0

Registration Restrictions: Graduate standing

Analysis of current and future implications of information systems (IS) and emerging technologies for managers and decision makers. Focuses on the interaction of technology with business organizations including e-commerce, enterprise IS, and globalization issues.

**CM - Construction Management***Offered through the Community and Technical College**University Center (UC), Room 130, 786-6465**www.uaa.alaska.edu/ctc/programs/edt***CM A101      Fundamentals of CADD for Building Construction      4 CR**

Contact Hours: 2 + 4

Prerequisites: (MATH A105 with minimum grade of C or concurrent enrollment).

Registration Restrictions: Proof of eligibility for placement into ENGL A111.

Appropriate SAT, ACT or UAA-approved Math Placement Test scores may be used in lieu of MATH A105.

Crosslisted with: AET A101.

Special Fees.

Introduces basic CADD (computer-aided drafting and design) skills necessary in civil, architectural, structural, mechanical, and electrical drafting within the construction industry. Defines the working relationship between design and construction professionals and drafters/technicians.

**CM A102      Methods of Building Construction      3 CR**

Contact Hours: 3 + 0

Registration Restrictions: Proof of eligibility for placement into MATH A105 and ENGL A111.

Crosslisted with: AET A102.

Special Fees.

Introduces basic knowledge of building materials, technical specifications, techniques, and systems. Outlines structural systems, construction processes, and assemblies. Includes a field project involving student team research of current Alaskan building type.

**CM A123      Codes and Standards      3 CR**

Contact Hours: 3 + 0

Prerequisites: CM A101 and CM A102.

Crosslisted with: AET A123.

Special Fees.

Provides an introduction and overview of the fundamental provisions of the building codes used for plan review, life-safety evaluation of buildings, and community development.

**CM A142      Mechanical and Electrical Technology      4 CR**

Contact Hours: 3 + 2

Prerequisites: [AET A101 with minimum grade of C or CM A101 with minimum grade of C] and [AET A102 with minimum grade of C or CM A102 with minimum grade of C] and MATH A105 with minimum grade of C.

Registration Restrictions: Appropriate SAT, ACT or UAA-approved Math Placement Test scores may be used in lieu of the MATH A105 prerequisite.

Crosslisted with: AET A142.

Special Fees.

Introduces the basic mechanical and electrical systems required in all buildings for the safety, health, comfort and convenience of the occupants. Emphasizes design criteria, code requirements, interpretation of construction drawings and building energy usage.

**CM A163      Building Construction Cost Estimating      3 CR**

Contact Hours: 2 + 2

Prerequisites: CM A101 and CM A102 and MATH A105.

Special Fees.

Presents methods and techniques for preparing accurate cost estimates for building construction projects. Emphasizes quantity takeoffs, unit pricing, productivity factors, bidding and negotiation procedures, and cost reporting.

**CM A201      Construction Project Management I      3 CR**

Contact Hours: 3 + 0

Prerequisites: CM A101 and CM A102.

Special Fees.

Examines construction project management methods and processes. Includes project delivery systems introduction and contract types; contract administration procedures; jobsite planning and logistics; and managing labor, materials, and equipment.

**CM A202      Project Planning and Scheduling      3 CR**

Contact Hours: 2 + 2

Prerequisites: CM A201 and MATH A105.

Special Fees.

Examines concepts and methods for planning and scheduling of construction projects. Includes identifying work elements, estimating activity durations, preparing network schedules and schedule updates, analyzing planned vs. actual project progress and use of computer scheduling software.

## Course Descriptions

<b>CM A205</b>	<b>Construction Safety</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: CM A201. Special Fees.		
Examines safety and health practices for the construction industry. Includes developing and implementing construction project site-specific safety plans, analyzing the laws and regulations that govern safety, evaluating construction site hazards and environmental conditions, and incident investigation and reporting.		
<b>CM A213</b>	<b>Construction Civil Technology</b>	<b>4 CR</b>
Contact Hours: 2 + 4 Prerequisites: [AET A101 with minimum grade of C or CM A101 with minimum grade of C] and [AET A102 with minimum grade of C or CM A102 with minimum grade of C] and MATH A105 with minimum grade of C. Registration Restrictions: Appropriate SAT, ACT or UAA-approved Math Placement Test scores may be used in lieu of the MATH A105 prerequisite. Special Fees.		
Outlines elements of civil design and construction, including soils and soil properties, roads, earthwork, and utilities using local, state and federal regulations. Students will also be introduced to construction surveying.		
<b>CM A231</b>	<b>Structural Technology</b>	<b>4 CR</b>
Contact Hours: 2 + 4 Prerequisites: [AET A101 with minimum grade of C or CM A101 with minimum grade of C] and [AET A102 with minimum grade of C or CM A102 with minimum grade of C] and MATH A105 with minimum grade of C. Registration Restrictions: Appropriate SAT, ACT or UAA-approved Math Placement Test scores may be used in lieu of the MATH A105 prerequisite. Crosslisted with: AET A231. Special Fees.		
Examines structural theory and the physical principles that underlie structural behavior. Includes the use of materials in a manner to maintain structural stability against natural forces such as gravity, wind, snow and earthquakes. Covers connection details and code requirements for wood, steel and reinforced concrete.		
<b>CM A263</b>	<b>Civil Construction Cost Estimating</b>	<b>3 CR</b>
Contact Hours: 2 + 2 Prerequisites: CM A201 and MATH A105. Special Fees.		
Presents methods and techniques for preparing accurate cost estimates for earthwork, roads, highways, underground utilities, and site work. Emphasizes quantity surveys, unit costs, production factors, bidding, and construction equipment management.		
<b>CM A295</b>	<b>Construction Management Internship</b>	<b>3 CR</b>
Contact Hours: 0 + 15 Registration Restrictions: Departmental approval. Grade Mode: Pass/No Pass. Special Fees.		
Places students in building construction offices related to student educational program and occupational objectives. Direct supervision by contractor professional, program faculty, and Career Services coordinator.		
<b>CM A301</b>	<b>Construction Project Management II</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: CM A163 and CM A202. Special Fees.		
Analyzes advanced subjects in construction project management. Includes project procurement, project delivery methodology, managing project change, quality control, claims and disputes, and labor relations.		
<b>CM A313</b>	<b>Soils in Construction</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: CM A213 and MATH A107. Special Fees.		
Examines the properties and classifications of soils encountered and used in construction. Includes soils investigation, soils stress analysis, embankment construction, and excavation works and supports.		
<b>CM A331</b>	<b>Statics and Strength of Materials</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: [AET A231 or CM A231] and [MATH A108 or MATH A109] and PHYS A123 and PHYS A123L. Special Fees.		
Analyzes forces and the mechanics of materials for structural elements and structural assemblies. Includes the fundamentals of statics; stress, strain, and deformation; shear and bending moment stresses in beams; and column analysis.		

<b>CM A401</b>	<b>Construction Law</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: CM A301 and [BA A241 or JUST A241]. Special Fees.		
Examines the significant legal topics affecting general contractors, subcontractors, project owners and surety bond agents. Integrates legal issues with design and construction services, focusing on risk management and liability awareness.		
<b>CM A422</b>	<b>Sustainability in the Built Environment</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Completion of GER Tier 1 (basic college-level skills) courses, junior standing, plus completion of one Tier 2 Natural Science course and one other Tier 2 GER course. Course Attributes: UAA GER Integrative Capstone. Special Fees.		
Examines sustainability concepts and the implementation of sustainability principles in the design and construction of the built environment. Evaluates human-constructed development and resource preservation challenges in the context of the local and global natural environment.		
<b>CM A440</b>	<b>Financial Management for Construction</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ACCT A202 and CM A301. Special Fees.		
Analyzes financial management topics relevant to the construction management professional, including the interpretation of financial statements, financial ratios, applications of engineering economy, cash flow analysis, construction financing, and cost information systems.		
<b>CM A450</b>	<b>Construction Management Professional Practice</b>	<b>3 CR</b>
Contact Hours: 2 + 2 Prerequisites: CM A301 and CM A495. Registration Restrictions: Completion of GER Tier 1 (basic college-level skills) requirements. Course Attributes: UAA GER Integrative Capstone. Special Fees.		
Integrates educational and construction management principles using case studies. Emphasizes teamwork and professional competency. Includes the evaluation of project goals, conditions, and design documents to produce a plan for delivery and control.		
<b>CM A460</b>	<b>Construction Equipment Management and Methods</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: CM A263 and CM A313. Special Fees.		
Analyzes the management of construction equipment and methods employed in different sectors of the construction industry including buildings, heavy-highway, and utilities construction. Includes earthmoving operations, appropriate equipment selection, operating costs, and fleet management.		
<b>CM A495</b>	<b>Advanced Construction Management Internship</b>	<b>3 CR</b>
Contact Hours: 1 + 15 Prerequisites: CM A295. Special Fees.		
Special Note: Four hundred hours of department-approved work experience may be substituted for the prerequisite.		
Provides career development and exploration through work experience in the field by placement in a construction management home or field office. Intern will perform duties directly related to construction management functions.		

## CNT - Computer & Network Technology

*Offered through the Community and Technical College*

*University Center (UC) 130, 786-6426*

*[www.uaa.alaska.edu/ctc/programs/cet/index.cfm](http://www.uaa.alaska.edu/ctc/programs/cet/index.cfm)*

<b>CNT A160</b>	<b>PC Operating Systems</b>	<b>3 CR</b>
Contact Hours: 2 + 3 Special Fees.		
Develops basic understanding of command line, desktop, and server operating systems. Includes computer programming, architecture, and hardware necessary to understand the operating system interactions.		
<b>CNT A161</b>	<b>PC Architecture</b>	<b>1 CR</b>
Contact Hours: 1 + 0.5 Special Fees.		
Covers basic hardware associated with microcomputer operation, including, but not limited to, memory, motherboards, CPUs, chipsets, buses, expansion slots, and resource allocation.		

<b>CNT A162</b>	<b>PC Architecture and Building</b>	<b>3 CR</b>	<b>CNT A210</b>	<b>PC Technician Fundamentals</b>	<b>3 CR</b>
Contact Hours: 2 + 2 Special Fees.	Introduces skills required to evaluate, install and troubleshoot available software and hardware computer equipment. Covers basic hardware associated with microcomputer operation, including, but not limited to, motherboards, CPUs, chipsets, memory, buses, expansion slots and resource allocations. Includes PC disassembly, assembly, software installations, safety and maintenance.		Contact Hours: 3 + 0 Prerequisites: CIS A105.	Introduction to the principles of personal computer hardware/software maintenance and troubleshooting. The course is designed to give the student equivalent experience of a PC technician that has been working for six months.	
<b>CNT A163</b>	<b>Introduction to Networking</b>	<b>1 CR</b>	<b>CNT A212</b>	<b>Network Technician Fundamentals</b>	<b>3 CR</b>
Contact Hours: 1 + 0.5 Special Fees.	Introduces the concepts of networking protocols, communication techniques, and hardware components of LAN, MAN, and WAN networks.		Contact Hours: 1 + 2 Prerequisites: CNT A210.	Introduces the principles of developing, installing, maintaining and troubleshooting Peer-to-Peer, Local Area, and Wide Area Networks. Designed to serve the needs of advanced computer end-users interested in mastering broad, vendor-independent networking concepts. Provides students with the knowledge and experience required to pass the CompTIA Network + exam.	
<b>CNT A164</b>	<b>Network Cabling</b>	<b>1 CR</b>	<b>CNT A240</b>	<b>Windows System Essentials</b>	<b>2 CR</b>
Contact Hours: 1 + 0.5 Special Fees.	Introduces the different physical mediums and their characteristics associated with networking. This will include, but not be limited to, types of copper and fiber optic cables, connections, testing, cabling planning, and layout.		Contact Hours: 1 + 2 Prerequisites: CNT A210. Special Fees.	Provides an introduction to networking concepts, features, and capabilities and their implementation within the Windows environment.	
<b>CNT A165</b>	<b>Customer Service Fundamentals</b>	<b>1 CR</b>	<b>CNT A241</b>	<b>Administering and Supporting Windows Workstations and Server</b>	<b>3 CR</b>
Contact Hours: 1 + 0 Special Fees.	Introduces basic customer service principles, including relationships, perceptions, telephone techniques, quality, ethics, record keeping, interpersonal relationships, and teamwork.		Contact Hours: 2 + 2 Prerequisites: CNT A240. Special Fees.	Presents concepts and skills necessary to install and configure Windows Server on stand-alone computers and on client computers that are part of a workgroup or domain.	
<b>CNT A170</b>	<b>CCNA 1 Network Fundamentals</b>	<b>4 CR</b>	<b>CNT A242</b>	<b>Windows Network Infrastructure Administration</b>	<b>3 CR</b>
Contact Hours: 3 + 2.5 Registration Restrictions: Appropriate score on reading placement test is required. Special Fees.	Covers networking fundamentals and develops basic skills in installing, addressing and troubleshooting local area networks. Topics include cabling, Ethernet technologies, management devices, protocols, sub-netting, network device selection, installation, troubleshooting, network models and basic Cisco device configuration.		Contact Hours: 2 + 2 Prerequisites: CNT A241. Special Fees.	Provides students with the knowledge and skills to implement and manage the network infrastructure associated with a Windows domain.	
<b>CNT A180</b>	<b>PC Peripherals, Storage and A+ Certification</b>	<b>4 CR</b>	<b>CNT A243</b>	<b>Windows Directory Services Administration</b>	<b>3 CR</b>
Contact Hours: 3 + 2 Special Fees.	Covers PC operating systems, peripheral devices, auxiliary storage devices and the interfaces used to connect them to the personal computer. Also covers the fundamental topics necessary to prepare for the CompTIA A+ Certification exams.		Contact Hours: 2 + 2 Prerequisites: CNT A242.	Provides students with the skills and knowledge to install, configure, and administer the Windows Active Directory Service for a Windows domain.	
<b>CNT A181</b>	<b>PC Auxiliary Storage</b>	<b>1 CR</b>	<b>CNT A244</b>	<b>Designing Secure Windows Networks</b>	<b>3 CR</b>
Contact Hours: 1 + 0.5 Prerequisites: CNT A160 and CNT A161 and CNT A162. Special Fees.	Introduces PC storage devices and interfaces, including, but not limited to, magnetic storage, optical storage, disk drives, drive installation, configuration, and file systems.		Contact Hours: 2 + 2 Prerequisites: CNT A242.	Provides students with the knowledge and skills to design a security framework for small, medium, and enterprise networks using Microsoft Windows technologies.	
<b>CNT A182</b>	<b>PC Peripheral Devices</b>	<b>1 CR</b>	<b>CNT A245</b>	<b>Windows Directory Services Design</b>	<b>2 CR</b>
Contact Hours: 1 + 0.5 Prerequisites: CNT A160 and CNT A161 and CNT A162. Special Fees.	Introduces ancillary PC hardware, including keyboards, printers, pointing devices, video displays, video capture, scanners, and digital cameras.		Contact Hours: 1 + 2 Prerequisites: CNT A243.	Provides students with the knowledge and skills to design a Microsoft Windows directory services infrastructure in an enterprise network.	
<b>CNT A183</b>	<b>Local Area Networks</b>	<b>3 CR</b>	<b>CNT A246</b>	<b>Windows Network Infrastructure Design</b>	<b>2 CR</b>
Contact Hours: 2 + 2 Prerequisites: CNT A160 and CNT A162. Special Fees.	Presents the fundamentals of Local Area Networking, including topologies, protocols, computer and delivery hardware, Ethernet, network operating systems, LAN assessment, and other related software. Covers the fundamental networking topics necessary to prepare for the CompTIA Net+ Exam.		Contact Hours: 1 + 2 Prerequisites: CNT A242.	Provides students with the knowledge and skills to design a Microsoft Windows networking services infrastructure design that supports the network applications required for the needs of an organization.	
<b>CNT A184</b>	<b>Introduction to TCP/IP</b>	<b>1 CR</b>	<b>CNT A261</b>	<b>CCNA 2 Router Fundamentals and Protocols</b>	<b>4 CR</b>
Contact Hours: 1 + 1 Prerequisites: CNT A183. Special Fees.	Presents transmission control protocol/internet protocol, including structure, addressing, data transfer, software, applications, and troubleshooting.		Contact Hours: 3 + 2.5 Prerequisites: CNT A170. Special Fees.	Provides details of network routing, Cisco routers and router interfaces, routing protocols, IP addressing, router and routing protocol configuration and troubleshooting.	
<b>CNT A190</b>	<b>Selected Topics in MOUS Certifications</b>	<b>1 CR</b>	<b>CNT A262</b>	<b>Computer Technical Support</b>	<b>2 CR</b>
Contact Hours: 0.5 + 1 Prerequisites: CNT A101. Special Note: May be repeated for credit with a change of subtitle.	Provides advanced Microsoft training leading to MOUS certifications in selected software topics from the Office 2000 suite.		Contact Hours: 1.5 + 2 Prerequisites: CNT A165 and CNT A184.	Develops skills necessary for evaluating and implementing various technical support functions, including hardware and software needs assessments, training development, preventive maintenance, and effective communication and documentation.	

## Course Descriptions

<b>CNT A264</b>	<b>Introduction to Information Security</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: CNT A212 or CNT A261. Provides students with an understanding of the core concepts that relate to the practice of network security. This course will help prepare students for the CompTIA Security+ exam.		
<b>CNT A270</b>	<b>CCNA 3 Switching and Wireless</b>	<b>4 CR</b>
Contact Hours: 3 + 2.5 Prerequisites: CNT A261. Special Fees. Covers LAN switch functions, operations, configurations and protocols. Topics include switch forwarding, components, configuration, security, VLANs, inter-VLAN routing, STP, VTP and wireless network access.		
<b>CNT A271</b>	<b>CCNA 4 WAN Access</b>	<b>4 CR</b>
Contact Hours: 3 + 2 Prerequisites: CNT A270. Special Fees. Covers wide area networking services, security, design and management. Topics include wide area network technology, devices, link options, frame encapsulation formats, designs, protocols, router security and configurations.		
<b>CNT A272</b>	<b>Cisco Wireless Networking</b>	<b>3 CR</b>
Contact Hours: 2 + 2.5 Prerequisites: CNT A261. Special Fees. Provides students with wireless networking fundamentals with focuses on the design, planning, implementation, operation and troubleshooting of wireless LANs. Also offers a comprehensive overview of wireless technologies and security.		
<b>CNT A276</b>	<b>Individual Technical Project</b>	<b>1-3 CR</b>
Contact Hours: 0-3 + 3-10 Prerequisites: CNT A261. Special Note: Faculty permission and working knowledge of CNT topics required. Covers development, implementation and completion of a project based on a relevant technological issue. Student works closely with faculty to produce and end product and report.		
<b>CNT A280</b>	<b>Server Operating Systems</b>	<b>3 CR</b>
Contact Hours: 2 + 3 Prerequisites: CNT A261 and [CNT A183 or CNT A212]. Special Fees. Special Note: A CompTIA Network + Certificate may be substituted for the CNT A183 or CNT A212 prerequisite, with department approval. Develops server operating system basics. Includes installation, troubleshooting, creation and administration of user accounts and resources, and remote and internet accounts.		
<b>CNT A281</b>	<b>Certification Program</b>	<b>2 CR</b>
Contact Hours: 1 + 2 Prerequisites: CNT A182 and CNT A184. Special Fees. Provides advanced computer and network training leading to Comp TIA A+ and Network+ certifications.		
<b>CNT A282</b>	<b>Industry Workplace Experience</b>	<b>1-3 CR</b>
Contact Hours: 0 + 3.3-10 Registration Restrictions: Faculty permission. Grade Mode: Pass/No Pass. Special Note: Requires instructor permission and successful completion of 12 credits in the CNT program. Provides supervised workplace experience in industry settings. Integrates advanced-level knowledge and practice to demonstrate skill competencies.		
<b>CNT A290</b>	<b>Selected Topics in Information Technology</b>	<b>1-4 CR</b>
Contact Hours: 1-4 + 0-12 Special Note: Prerequisites vary by topic. May be repeated with a change in subtitle. Covers various intermediate to advanced topics in information technology.		
<b>CNT A390</b>	<b>Selected Topics in Computer and Networking Technology</b>	<b>1-4 CR</b>
Contact Hours: 1-4 + 0-12 Special Note: Prerequisites vary by topic. May be repeated with a change in subtitle. Offers selected topics in computers and networking pertaining to state-of-the-art technology and trends. Course content is determined by current trends, new technologies, and student and employer needs.		

## COMM - Communication

*Offered through the College of Arts and Sciences*  
[www.uaa.alaska.edu/communication](http://www.uaa.alaska.edu/communication)

*Communication and Discourse Studies*  
*Administration/Humanities Building (ADM), Room 262, 786-4390*  
[www.uaa.alaska.edu/cds](http://www.uaa.alaska.edu/cds)

*Communication and Human Behavior*  
*Social Sciences Building (SSB), Room 352, 786-4345*  
[www.uaa.alaska.edu/chb](http://www.uaa.alaska.edu/chb)

**COMM A101 Introduction to Human Communication** 3 CR  
Contact Hours: 3 + 0

Introduces basic perspectives, methods, and theories about human communication in personal and professional contexts. Topics include: conflict, gender, interpersonal relationships, listening, organizational communication, persuasion, rhetoric, and small group dynamics.

**COMM A111 Fundamentals of Oral Communication** 3 CR  
Contact Hours: 3 + 0

Prerequisites: ENGL A109 with minimum grade of C or PRPE A108 with minimum grade of C or ENGL A111 or ENGL A211 or ENGL A212 or ENGL A213 or ENGL A214 or [Accuplacer-Reading Comp with score of 085 and Accuplacer-Sentence Skills with score of 095] or Enhanced ACT English with score of 22 or Original ACT English with score of 22 or ACT English with score of 22 or SAT Critical Reading Score with score of 530 or SAT Verbal Score with score of 530 or SAT Verbal with score of 530 or [COMPASS E-Write (1-12 scale) with score of 10 and COMPASS Reading Skills with score of 75].  
Registration Restrictions: Appropriate test score on English Placement Test, SAT Verbal Section, or ACT English Test will waive the ENGL A109 or PRPE A108 prerequisite.

Course Attributes: UAA GER Oral Communication Requirement.  
Special Fees.

Special Note: Students who qualify for placement in ENGL A111 or have already completed ENGL A111 are qualified for this course.

Survey of communication principles, theories, and skills including interpersonal communication, small group communication, and public speaking. Students develop oral communication skills through practice in a variety of individual activities, group activities, and individual and group presentations.

**COMM A235 Small Group Communication** 3 CR  
Contact Hours: 3 + 0

Prerequisites: ENGL A109 with minimum grade of C or PRPE A108 with minimum grade of C or ENGL A111 or ENGL A211 or ENGL A212 or ENGL A213 or ENGL A214 or [Accuplacer-Reading Comp with score of 085 and Accuplacer-Sentence Skills with score of 095] or Enhanced ACT English with score of 22 or Original ACT English with score of 22 or ACT English with score of 22 or SAT Critical Reading Score with score of 530 or SAT Verbal Score with score of 530 or SAT Verbal with score of 530 or [COMPASS E-Write (1-12 scale) with score of 10 and COMPASS Reading Skills with score of 75].

Registration Restrictions: Appropriate test score on English Placement Test, SAT Verbal Section, or ACT English Test will waive the ENGL A109 or PRPE A108 prerequisite.

Course Attributes: UAA GER Oral Communication Requirement.  
Special Fees.

Special Note: Students who qualify for placement in ENGL A111 or have already completed ENGL A111 are qualified for this course.

Study of theories and skills related to small group communication. Emphasis is on the communicative skills involved in group relationships and group decision making processes in both professional and personal contexts. Students develop oral communication skills by engaging in practice in a variety of individual exercises and presentations, and group presentations.

**COMM A236 Interviewing** 3 CR  
Contact Hours: 3 + 0

Prerequisites: COMM A111 or COMM A235 or COMM A237 or COMM A241.  
Special Fees.

Examines theories and individual responsibilities in information gathering, employment and persuasive interviews. Students practice face-to-face verbal and nonverbal communication through role-played interviews.

**COMM A237 Interpersonal Communication 3 CR**  
 Contact Hours: 3 + 0  
 Prerequisites: ENGL A109 with minimum grade of C or PRPE A108 with minimum grade of C or ENGL A111 or ENGL A211 or ENGL A212 or ENGL A213 or ENGL A214 or [Accuplacer-Reading Comp with score of 085 and Accuplacer-Sentence Skills with score of 095] or Enhanced ACT English with score of 22 or Original ACT English with score of 22 or ACT English with score of 22 or SAT Critical Reading Score with score of 530 or SAT Verbal Score with score of 530 or SAT Verbal with score of 530 or [COMPASS E-Write (1-12 scale) with score of 10 and COMPASS Reading Skills with score of 75].  
 Registration Restrictions: Appropriate test score on English Placement Test, SAT Verbal Section, or ACT English Test will waive the ENGL A109 or PRPE A108 prerequisite.  
 Course Attributes: UAA GER Oral Communication Requirement.  
 Special Fees.  
 Special Note: Students who qualify for placement in ENGL A111 or have already completed ENGL A111 are qualified for this course.

Study of theories and skills related to dyadic communication and the variables which affect it, including conflict, culture, gender, and rules in both personal and professional contexts. Students will develop oral communication skills designed to improve communication in relationships by engaging in a variety of individual exercises, individual presentations, and group activities.

**COMM A241 Public Speaking 3 CR**

Contact Hours: 3 + 0  
 Prerequisites: ENGL A109 with minimum grade of C or PRPE A108 with minimum grade of C or ENGL A111 or ENGL A211 or ENGL A212 or ENGL A213 or ENGL A214 or [Accuplacer-Reading Comp with score of 085 and Accuplacer-Sentence Skills with score of 095] or Enhanced ACT English with score of 22 or Original ACT English with score of 22 or ACT English with score of 22 or SAT Critical Reading Score with score of 530 or SAT Verbal Score with score of 530 or SAT Verbal with score of 530 or [COMPASS E-Write (1-12 scale) with score of 10 and COMPASS Reading Skills with score of 75].  
 Registration Restrictions: Appropriate test score on English Placement Test, SAT Verbal Section, or ACT English Test will waive the ENGL A109 or PRPE A108 prerequisite.  
 Course Attributes: UAA GER Oral Communication Requirement.  
 Special Fees.  
 Special Note: Students who qualify for placement in ENGL A111 or have already completed ENGL A111 are qualified for this course.

Study of theories and skills applicable to informative, persuasive, and special occasion platform speaking. Emphasis on effective selection, organization, and presentation of material to diverse audiences across diverse settings. Students will develop oral communication skills by engaging in a variety of exercises and individual presentations.

**COMM A305 Intercultural Communication 3 CR**

Contact Hours: 3 + 0  
 Prerequisites: COMM A101 or COMM A111 or COMM A235 or COMM A237.

Examines the process of interpersonal communication when the effects of cultural differences create dissimilar interpretations and expectations for interpersonal interaction. Explores theories and experiences of communication in intercultural relationships.

**COMM A320 Argumentation and Debate 3 CR**

Contact Hours: 3 + 0  
 Prerequisites: COMM A111 or COMM A241.

An introduction to debating as a practical application of argumentation theory. A review of argumentation theory serves as the foundation for skill development in inventing, researching, phrasing and articulating arguments in the context of academic debating.

**COMM A340 Nonverbal Communication 3 CR**

Contact Hours: 3 + 0  
 Prerequisites: COMM A111 or COMM A235 or COMM A237 or COMM A241.

Covers theoretical and research literature pertinent to nonverbal communication behavior. Focuses on the pervasive role that movement plays in the formal and informal communication process.

**COMM A341 Advanced Public Speaking 3 CR**

Contact Hours: 3 + 0  
 Prerequisites: COMM A111 or COMM A241.

Provides students with an opportunity to develop excellence in advocacy and public address. Builds on theories and skills relevant to informative, persuasive and special occasion speeches, and provides high level instruction in the use of visual aids. Prepares students to deliver well-organized, highly developed presentations in a polished, professional manner appropriate to the audience and occasion.

**COMM A345 Women and Communication 3 CR**

Contact Hours: 3 + 0  
 Prerequisites: COMM A101 or COMM A111 or COMM A235 or COMM A237 or COMM A241.

Provides a historical, theoretical, and contemporary view of how communication, culture, and gender interact and create meaning. Includes an examination of the experience of women historically in interpersonal, professional, and political settings.

**COMM A346 Oral Interpretation of Literature 3 CR**

Contact Hours: 3 + 0  
 Prerequisites: COMM A111 or COMM A235 or COMM A237 or COMM A241.

Theory and practice of the art of oral interpretation in order to stimulate an understanding of and responsiveness to prose, poetry and drama, and to develop the ability to convey to others, through oral reading, an appreciation of literature.

**COMM A360 Competitive Debating 3 CR**

Contact Hours: 3 + 0  
 Prerequisites: COMM A111 or COMM A241.  
 Registration Restrictions: Faculty permission.  
 Special Note: May be repeated once for credit.

Study of the theory and practice of competitive academic debating. Students will consider competitive debating from the perspective of debater, adjudicator and competition organizer.

**COMM A370 Relational Communication 3 CR**

Contact Hours: 3 + 0  
 Prerequisites: COMM A101 or COMM A111 or COMM A235 or COMM A237.

Study of communication processes in intimate personal relationships. Examines the role of communication in relationship engagement, relationship maintenance and relationship disengagement.

**COMM A380 Theories of Human Communication 3 CR**

Contact Hours: 3 + 0  
 Prerequisites: COMM A111 or COMM A235 or COMM A237 or COMM A241.  
 Study of major communication theories, principles, and research paradigms in interpersonal, group, organizational, and public contexts.

**COMM A390 Selected Topics in Communication 3 CR**

Contact Hours: 3 + 0  
 Prerequisites: COMM A111 or COMM A235 or COMM A237 or COMM A241.  
 Special Note: May be repeated once for credit with a change of subtitle.

Selected topics in communication arising from special circumstances of demand or faculty expertise. Specific titles as announced.

**COMM A410 Communication in Education 3 CR**

Contact Hours: 3 + 0  
 Prerequisites: COMM A111 or COMM A235 or COMM A237 or COMM A241.  
 Explores theories, research, symbolic activity and communication behavior at play in a range of teaching, training and learning environments. Considers the nature of personal, public, political and cultural discourse surrounding educational processes, issues and debates.

**COMM A412 Persuasion 3 CR**

Contact Hours: 3 + 0  
 Prerequisites: COMM A101 or COMM A111 or COMM A235 or COMM A237 or COMM A241.

Explores history, modern theory, and practical application of persuasion theory. A review of current literature, examination of persuasion in interpersonal, organizational, political, and public contexts.

**COMM A420 Family Communication 3 CR**

Contact Hours: 3 + 0  
 Prerequisites: COMM A101 or COMM A111 or COMM A235 or COMM A237 or COMM A241.

Study of interpersonal communication processes in the family. Examines the role of communication in family systems, roles, and decision-making; as well as the role of communication in power, conflict, and family stresses.

## **COUN - Counseling**

*Offered through the Advising and Testing Center*

*University Center (UC), Room 112, 786-4500*

*[www.uaa.alaska.edu/advising-testing](http://www.uaa.alaska.edu/advising-testing)*

**COUN A101 Introduction to Career Exploration 1 CR**

Contact Hours: 1 + 0  
 Grade Mode: Pass/No Pass.  
 Special Fees.

An introduction to career exploration. Includes exploring self-concept, values, interests, skills, aptitudes, work orientation, occupational information and decision making.

## Course Descriptions

**COUN A107**                      **Managing Stress**                      **1 CR**  
Contact Hours: 1 + 0  
Examines general causes of stress and effective methods to eliminate or manage stress in your own life.

## CPLX - Complex Systems

*Offered through the College of Arts and Sciences  
Engineering Building (ENGR), Room 333, 786-4748  
www.uaa.alaska.edu/complexsystems*

**CPLX A200**                      **Introduction to Complexity**                      **3 CR**  
Contact Hours: 3 + 0  
Prerequisites: MATH A107 or MATH A172.  
Crosslisted with: BIOL A200.  
Course Attributes: UAA GER Natural Sciences Requirement.  
An introduction to the science of complexity, currently used to predict system behavior in the physical, life, and social sciences.

## CS - Computer Science

*Offered through the College of Arts and Sciences  
Social Sciences Building (SSB), Room 154, 786-1744  
www.math.uaa.alaska.edu*

**CS A101**                      **Introduction to Computer Science**                      **3 CR**  
Contact Hours: 3 + 0  
Prerequisites: MATH A105 with minimum grade of C.  
Registration Restrictions: If prerequisite is not satisfied, appropriate SAT or ACT scores or approved UAA Placement Test required.  
Special Fees.  
Special Note: Students who intend to major in computer science may take this course as preparation for their course of study.

Offers a broad overview of computer science designed to provide students with an appreciation for and an understanding of the many different aspects of computer science. Topics include discrete mathematics, an introduction to programming languages, algorithmic problem solving, basic concepts in hardware, operating systems, networks, graphics, and an overview of the social context of computing. The following basic computer skills are expected: how to use a web browser, send email, edit with a word processor, copy files, open and save documents, and open and close windows.

**CS A109**                      **Computer Programming (Languages Vary)**                      **3 CR**  
Contact Hours: 3 + 0  
Prerequisites: MATH A105 with minimum grade of C.  
Registration Restrictions: If prerequisite is not satisfied, appropriate SAT or ACT scores or approved UAA Placement Test required.  
Special Fees.  
Special Note: May be repeated twice for credit with a change in language.  
Problem analysis and solution using a selected programming language.

**CS A110**                      **Java Programming**                      **3 CR**  
Contact Hours: 3 + 0  
Prerequisites: MATH A105 with minimum grade of C.  
Registration Restrictions: If prerequisite is not satisfied, appropriate SAT or ACT scores or approved UAA placement test required.  
Special Fees.  
Introduction to the syntax of the Java language and object-orientation with an emphasis on writing programs to solve problems.

**CS A111**                      **Visual Basic .NET Programming**                      **3 CR**  
Contact Hours: 3 + 0  
Prerequisites: MATH A105 with minimum grade of C.  
Registration Restrictions: If prerequisite is not satisfied, appropriate SAT or ACT scores or approved UAA placement test required.  
Special Fees.  
Introduction to the syntax and semantics of the Visual Basic .NET programming language with an emphasis on writing programs to solve problems.

**CS A201**                      **Programming Concepts I**                      **3 CR**  
Contact Hours: 3 + 0  
Prerequisites: CS A101 or [MATH A107 or MATH A108 or MATH A109].  
Registration Restrictions: Meet prerequisites or placement into MATH A200 or MATH A272.  
Special Fees.

An introduction to object-oriented programming techniques and problem solving. This includes basic syntax; sequential, branching, and looping execution; as well as concepts such as inheritance, encapsulation, and polymorphism.

**CS A202**                      **Programming Concepts II**                      **3 CR**  
Contact Hours: 3 + 0  
Prerequisites: CS A201.  
Continuation of object-oriented programming. Topics include: inheritance, abstraction, interfaces, references, polymorphism, dynamic binding, class hierarchies, container classes, random access file I/O, serializability, graphical applications, event handling, UML, and object-oriented design.

**CS A221**                      **Computer Organization and Assembly Programming**                      **3 CR**  
Contact Hours: 3 + 0  
Prerequisites: CS A201.  
Introduces the hardware components of computer systems, the organization of those components, and the low-level programming operations that computer systems provide. Includes fundamentals of assembly language programming.

**CS A241**                      **Computer Hardware Concepts**                      **4 CR**  
Contact Hours: 3 + 3  
Prerequisites: [CS A201 or CSE A205] and [MATH A107 or MATH A172].  
Crosslisted with: EE A241.  
Analysis and design of electronic devices used as building blocks for construction of simple digital systems. Presents formats for data storage, number systems and alphanumeric codes, and methods of implementing logical and arithmetic operations within computers. Relates hardware components' capabilities and limitations to design requirements for computer processing, memory, and control functions.

**CS A304**                      **Object-Oriented Analysis and Modeling**                      **3 CR**  
Contact Hours: 3 + 0  
Prerequisites: CS A202 or CSE A215.  
Object-oriented approach to modeling real-world entities and designing a language-independent software application or system based on that model. The course will include selected programming assignments and projects in a current object-oriented language.

**CS A320**                      **Operating Systems**                      **3 CR**  
Contact Hours: 3 + 0  
Prerequisites: CS A202.  
An introductory course on operating systems. Topics covered include process management and scheduling, threads, synchronization and deadlock, memory management and virtual memory, and file systems and I/O.

**CS A330**                      **Algorithms and Data Structures**                      **3 CR**  
Contact Hours: 3 + 0  
Prerequisites: CS A202 or CSE A215.  
Manipulation of data structures by algorithms. The following topics will be covered: arrays, tables, stacks, queues, trees, linked lists, graphs, sorting, searching, and hashing.

**CS A331**                      **Programming Language Concepts**                      **3 CR**  
Contact Hours: 3 + 0  
Prerequisites: CS A221 and CS A330.  
Study of the syntax and semantics of widely differing programming languages. Syntax specification, block structure, binding, data structure operators, and control structures. Comparison of several programming languages. The languages will be selected to cover the major topical areas of procedural, functional, logic, and scripting languages. Programming assignments will be given in each language studied.

**CS A342**                      **Networks**                      **3 CR**  
Contact Hours: 3 + 0  
Prerequisites: CS A221 and CS A330 and MATH A231.  
Introduction to data transmission, information theory, and computer networks. Topics include: characteristics of transmission media, multiplexing, error detection and correction, data security, communication protocols, packet switching, analysis of various network architectures, and review of selected commercial network environments.

**CS A351**                      **Automata, Algorithms, and Complexity**                      **3 CR**  
Contact Hours: 3 + 0  
Prerequisites: CS A330 and MATH A231.  
Study of the theory of computing and algorithm analysis and design. Topics in computing theory include: parsing, finite automata and regular languages, pushdown automata and context-free grammars, deterministic and nondeterministic Turing machines, decidability, and computability. Topics in the algorithm domain include: algorithm analysis and complexity, searching/sorting algorithms, mathematical algorithms, and graph theoretic algorithms.

**CS A360**                      **Database Systems**                      **3 CR**  
Contact Hours: 3 + 0  
Prerequisites: CS A202 or CSE A215.  
Application of data modeling, relational database concepts and design, normalization theory, and structured query language. Study of underlying data structures and implementations of data processing architectures.

<b>CS A385</b>	<b>Computer Graphics</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: CS A330. Introduction to the principles, techniques, and tools used in 3D computer graphics programming.		
<b>CS A395</b>	<b>Internship in Computing</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: CS A202 and CS A221. Registration Restrictions: Faculty approval. Grade Mode: Pass/No Pass. Special Fees. Special Note: This course is open to qualified students with faculty approval, and as placements are available. Special Note: May be taken up to three times, but only 3 credits may be applied towards CS major requirements. Application of computing skills in a professional work setting.		
<b>CS A401</b>	<b>Software Engineering</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: CS A330. Extends the ideas of software design and development from the introductory programming sequence to encompass the problems encountered in large-scale programs. Topics include software engineering techniques for programming large problems, advanced issues in object-oriented programming, design patterns, client-server computing, and principles of interface design.		
<b>CS A405</b>	<b>Artificial Intelligence</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: CS A330 and MATH A231. Introduction to the basic concepts of artificial intelligence (AI). Topics include knowledge representation, predicate logic, heuristic search, natural language processing, machine learning, and a survey of AI programming languages.		
<b>CS A407</b>	<b>Evolutionary Computing</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: CS A330. Introduces students to subjects in the broad field of evolutionary computing, including genetic algorithms, evolution strategies, evolutionary programming, and genetic programming. Emphasis will be on the design, implementation, testing, debugging, and verification of correct programs.		
<b>CS A413</b>	<b>Computer and Data Security</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: CS A202 or CSE A215. Fundamentals of computer and data security. Emphasizes the importance of proper data processing practices and management.		
<b>CS A431</b>	<b>Compilers: Concepts and Techniques</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: CS A331. Top-down and bottom-up parsing, lexical analyzers, symbol tables, internal forms, intermediate languages, code generation, optimization. A compiler for a rudimentary language is constructed.		
<b>CS A448</b>	<b>Computer Architecture</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: CS A221 and CS A320 and CS A331. Instruction set design and evaluation, processor implementation techniques, pipelining, vector processors, memory systems, and I/O systems. Overview of parallel and distributed systems architecture. Development and application of software for the parallel and distributed environments: algorithms, programming languages, and development tools.		
<b>CS A470</b>	<b>Applied Software Development Project</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: CS A351 and CS A401 and [(ENGL A312 or concurrent enrollment) or (ENGL A414 or concurrent enrollment)]. Registration Restrictions: Senior standing, and completion of GER Tier 1 (basic college-level skills) courses. Course Attributes: UAA GER Integrative Capstone. Application of software development concepts, principles, and practices to a comprehensive, realistic system. The student will analyze, design, document, implement, and deliver a presentation and written report of a software system of moderate complexity under the supervision of the instructor.		
<b>CS A490</b>	<b>Topics in Computer Science</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Faculty permission. Special Note: May be repeated for credit with a change of subtitle. Advanced topics in computer science not taught in other CS course offerings.		

<b>CS A495</b>	<b>Internship Project</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Junior or Senior Standing with minimum of 15 credits in CS courses and faculty permission. Special Fees. Special Note: Enrollment will be permitted after a plan for the completion of the project is submitted to and approved by the instructor. Internships are subject to availability of placement. May be taken more than once, but only 3 credits of the upper division credit requirement for the bachelor's degree in CS may be met with CS A495. Students wishing to earn internship credits without the project requirement should enroll in CS A395. Professional work experience in appropriate areas of computing. The student will analyze, design, and document a realistic computer science project of moderate complexity under the supervision of a qualified professional who has agreed in advance to undertake this role.		

<b>CS A498</b>	<b>Individual Research</b>	<b>1-3 CR</b>
Contact Hours: 1-3 + 0 Registration Restrictions: Upper division standing and faculty permission. Special Note: May be repeated up to a maximum of six credits. Independent research projects under the supervision of a faculty member. The result will be a paper or presentation prepared to publication standards.		

<b>CS A670</b>	<b>Computer Science for Software Engineers</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Faculty permission required. In-depth survey of the theoretical underpinnings of computer science. Topics are taken from the areas of algorithms and data structures, computer architecture, networking, operating systems, computability and formal languages, programming languages, and compilers.		

<b>CS A671</b>	<b>Advanced Software Engineering</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: CS A401. The study of software design as an engineering discipline. The phases of software development are covered under a variety of lifecycle models. The phases are examined across the spectrum from small scale to very large-scale projects.		

<b>CS A690</b>	<b>Advanced Topics in Computer Science</b>	<b>1-3 CR</b>
Contact Hours: 1-3 + 0 Registration Restrictions: Faculty permission required. Special Note: May be repeated twice for credit with a change of subtitle for a maximum of 6 credits. Advanced topics in computer science at the graduate level.		

## CSE - Computer Systems Engineering

*Offered through the School of Engineering  
Engineering Building (ENGR), Room 201, 786-1900  
[www.engr.uaa.alaska.edu](http://www.engr.uaa.alaska.edu)*

<b>CSE A102</b>	<b>Introduction to Computer Systems</b>	<b>1 CR</b>
Contact Hours: 1 + 0 Introduction to hardware, operating systems, networking, security, storage, maintenance and related topics in computer systems. This course prepares students for applications across a wide range of computer systems for use in Geomatics and GIS courses as well as basic system management in field situations for Geomatics/GIS applications.		

<b>CSE A205</b>	<b>Introduction to C Programming for Engineers</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: [MATH A107 and MATH A108] or MATH A109. Introduction to C programming for engineers. Students will learn a programming language that can be used in many aspects of the engineering field, specifically with applications interfacing with hardware devices. Students will gain basic programming skills, including variables, functions, structures, control structures, and conditional statements with applied reinforcement in engineering applications. Projects will focus on engineering applications in different fields.		

<b>CSE A215</b>	<b>Object-Oriented Programming for Engineers</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: CSE A205. Object-oriented programming for engineers. Students will learn a programming language that can be used in many aspects of the engineering field. Assignments will focus on engineering applications that communicate with hardware devices through the use of programming skills, including objects, classes, inheritance, hierarchies, polymorphism, recursion, graphical user interfaces, event processing, and exception handling. This course is a cross-over class where students will learn object-oriented concepts in C++ and Java. Projects will focus on engineering applications in different fields.		

## Course Descriptions

### CSE A225 Assembly Language Programming for Engineers using Xilinx 3 CR

Contact Hours: 3 + 0  
Prerequisites: CSE A205.

Organization and operation of a computer's processor, including registers, I/O and control. Assembly language programming with emphasis placed on engineering applications and design using Xilinx architecture.

### CSE A335 Operating Systems Engineering 3 CR

Contact Hours: 3 + 0  
Prerequisites: CSE A225.

Introductory course on the inner workings of an operating system from an engineering perspective. Students will create different modules of an operating system, including memory management, threading, networking, and user interface in an environment of engineering applications and designed for hardware in the engineering field and other CSE courses. Students will create components of an operating system designed for hardware in the engineering field and other CSE courses.

### CSE A342 Digital Circuits Design 3 CR

Contact Hours: 3 + 0  
Prerequisites: CS A241 or EE A241.

Digital system design using integrated circuits and field-programmable gate arrays (FPGAs). Design and discussion of data path and control units, finite state machines and timing analysis. Digital circuit simulation and electronic schematic creation.

### CSE A355 Computer Networking for Engineers 3 CR

Contact Hours: 3 + 0  
Prerequisites: CSE A215.

Network architectures, layered and Internet protocols, and network service interfaces. Emphasis on design and implementation of networking hardware, including routers bridges, switches, hubs, and repeaters. Local networks, addressing, flow control, queuing, routing protocols, packet-loss with emphasis on engineering design and applications.

### CSE A438 Design of Computer Engineering Systems 3 CR

Contact Hours: 3 + 0  
Registration Restrictions: Student must be in senior year of BSE degree program or obtain faculty permission. Completion of GER Tier 1 (Basic College-level Skills) courses.

Course Attributes: UAA GER Integrative Capstone.

Capstone course in which computer systems engineering students design a computer component or system starting with the initial design specification to the implementation and testing. Students apply knowledge and skills learned in their undergraduate curriculum.

### CSE A442 VLSI Circuit Design 3 CR

Contact Hours: 3 + 0  
Prerequisites: CSE A342.

Analysis and design of digital VLSI (Very Large Scale Integration) circuits including area restrictions, delay minimization, and power minimization. Simulation of VLSI logic in software. CMOS (complementary metal-oxide-semiconductor) design rules, physical design, power consumption, clocking strategies, and transistor theory. Engineering VLSI simulation course project.

### CSE A445 Computer Design and Interfacing 4 CR

Contact Hours: 3 + 3  
Prerequisites: EE A204 and CS A221 and [CS A241 or EE A241] and CS A320.

Develops the design and implementation of input and output (I/O) operations for computer systems. Creation of input and output ports, interrupt controls, communication schemes, timing, digital to analog and analog to digital conversions, and software control of connected devices are included. Lab projects include design, implementation, test, and demonstration of complete I/O systems built to accomplish a set of specified objectives.

### CSE A451 Digital Signal Processing 3 CR

Contact Hours: 3 + 0  
Prerequisites: MATH A231 and EE A351 and STAT A307.

Develops properties and methods of analysis of discrete-time signals, and the techniques used in creating and processing those signals. Topics include discrete-time linear systems, Z-transforms, the Discrete Fourier Transform and Fast Fourier Transform algorithms, digital filter design, system performance analysis, and problem-solving. Methods and effects of signal processing are analyzed and evaluated.

### CSE A465 Network Security 3 CR

Contact Hours: 3 + 0  
Prerequisites: CSE A355.

Analysis of network attack techniques and methods to defend against them, including firewalls, virtual private networks, network intrusion detection, and denial of service.

### CSE A481 Engineering Software/Hardware Systems 3 CR

Contact Hours: 3 + 0  
Prerequisites: CSE A215 and CSE A335.

Modern systems abstractions and challenges in developing scalable solutions for increasingly complex computing needs from systems software design perspective. Relationships between software and hardware abstractions are studied while focusing on engineering tradeoffs between correctness and performance. Advanced topics including parallel systems and multi-core models.

## CTE - Career & Technical Education

*Offered through the Community & Technical College*

*University Center (UC), Room 130, 786-6945*

[www.uaa.alaska.edu/cte/programs/academic/cte/index.cfm](http://www.uaa.alaska.edu/cte/programs/academic/cte/index.cfm)

### CTE A411 Historical and Philosophical Foundations of Career and Technical Education 3 CR

Contact Hours: 3 + 0  
Registration Restrictions: Junior or senior standing or departmental approval  
May be stacked with: CTE A611.

Studies history, theory, development, and philosophical foundations of career and technical education. Examines career and technical education, including secondary, postsecondary, and applied programs, along with models of career education including career clusters.

### CTE A425 Developing Programs of Study 1 CR

Contact Hours: 1 + 0  
Class Standing Restriction: Must be Junior or Senior.  
Registration Restrictions: Junior or senior standing  
May be stacked with: CTE A625.  
Special Note: May not be repeated for credit at a different level.

Develops understanding of programs of study through analysis of the national Career Clusters model and its application to program development and curriculum mapping. Generates a plan of study and an implementation plan for one career pathway through a sequenced process. This course addresses best practices and is recommended for educators designing programs of study to meet state career and technical education guidelines.

### CTE A490 Selected Topics in Career and Technical Education 1-6 CR

Contact Hours: 1-6 + 0  
Registration Restrictions: Junior or senior standing or department approval.  
May be stacked with: CTE A690.  
Special Note: May be repeated for credit with a change of subtitle.

Studies emerging trends, standards and theories of learning that Career and Technical educators may integrate into their curriculum. Explores opportunities for application of models using work experiences to test the models.

### CTE A611 Historical and Philosophical Foundations of Career and Technical Education 3 CR

Contact Hours: 3 + 0  
Registration Restrictions: Graduate standing.  
May be stacked with: CTE A411.

Studies history, theory, development, and philosophical foundations of career and technical education. Examines career and technical education, including secondary, postsecondary, and applied programs, along with models of career education including career clusters.

### CTE A625 Developing Programs of Study 1 CR

Contact Hours: 1 + 0  
Level Restriction: Must be Graduate - UAA level.  
Registration Restrictions: Graduate standing.  
May be stacked with: CTE A425.  
Special Note: May not be repeated for credit at a different level.

Develops understanding of programs of study through analysis of the national Career Clusters model and its application to program development and curriculum mapping. Generates a plan of study and an implementation plan for one career pathway through a sequenced process. This course addresses best practices and is recommended for educators designing programs of study to meet state career and technical education guidelines.

### CTE A633 Current Issues in Career and Technical Education 3 CR

Contact Hours: 3 + 0  
Registration Restrictions: Graduate standing.

Studies and analyzes recent trends, research, and issues concerning career and technical education, with a focus on evaluation, interpretation and sources. Identifies national and statewide problems, including legislation and special populations.



<b>CTE A643</b>	<b>Teaching in Career and Technical Education</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Graduate standing. Explores teaching strategies, applied research regarding learning, and concept development in Career and Technical Education (CTE). Evaluates content and materials. Examines teaching and learning to facilitate application in the classroom or training situation. Provides fundamentals of standards-based curriculum design and assessment for CTE.		
<b>CTE A643A</b>	<b>Career and Technical Education Methods I</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Departmental approval required. Provides fundamentals of standards-based curriculum design and assessment for diverse student populations in Career and Technical Education (CTE) classrooms. Explores applied research regarding students' learning and conceptual development in CTE and corresponding pedagogy. Examines career and technical education foundations and evaluates content and materials.		
<b>CTE A643B</b>	<b>Career and Technical Education Methods II</b>	<b>2 CR</b>
Contact Hours: 2 + 0 Prerequisites: CTE A643A. Registration Restrictions: Departmental approval required. Continues the development of professional teaching practices appropriate for diverse student populations in Career and Technical Education (CTE) classrooms. Examines current research and scholarship about teaching and learning that will facilitate application in the classroom.		
<b>CTE A655</b>	<b>Curriculum and Assessment in Career and Technical Education</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Graduate standing. Examines principles and procedures in the development of career and technical education curriculum. Studies theory and principles of quality assessment and assessment techniques. Addresses current trends in career and technical education curriculum and assessment, including programs of study and third party assessment.		
<b>CTE A690</b>	<b>Selected Topics in Career and Technical Education</b>	<b>1-6 CR</b>
Contact Hours: 1-6 + 0 Registration Restrictions: Graduate standing or department approval May be stacked with: CTE A490. Special Note: May be repeated for credit with a change of subtitle. Studies emerging trends, standards, and theories of learning that Career and Technical educators may integrate into their curriculum. Explores opportunities for application of models using work experiences to test the models.		
<b>CTE A695</b>	<b>Internship</b>	<b>1-9 CR</b>
Contact Hours: 0 + 3-27 Prerequisites: [CTE A611 and EDFN A601] or [EDFN A601 and EDFN A602 and EDFN A603]. Registration Restrictions: Departmental approval required. Placement availability may result in registration restrictions. Includes coursework and fingerprinting, Alaska Student Teacher Authorization and medical clearance. Grade Mode: Pass/No Pass. Special Fees. Special Note: This course operates in accordance with the K-12 school year calendar, not the University academic year calendar. Placement is arranged and supervised by the College of Education, in partnership with staff from the public school site and with faculty in the Community and Technical College. Partners may limit registration. Completion of 9 credits is required for the MAT. Supervised internship in a 7-12 public school. Internship develops teaching proficiency in career and technical education. Includes periodic on-campus seminars that emphasize theory-based inquiry into teaching and learning.		
<b>CTE A695C</b>	<b>Advanced Professional Experiences</b>	<b>1-6 CR</b>
Contact Hours: 0 + 5-30 Registration Restrictions: Graduate standing and faculty permission. Provides academic rigor to internships, externships, and other structured professional development activities in career and technical education. Course applies to all aspects of industry and support students' professional objectives.		
<b>CTE A698</b>	<b>Individual Research</b>	<b>1-6 CR</b>
Contact Hours: 1 + 5-30 Registration Restrictions: Graduate standing and advisor permission. Completion of or concurrent enrollment in research courses by advisement. Facilitates the development of a research paper/project and presentation jointly approved by the student's graduate committee and the student. Supports research that coincides with the student's professional objectives.		

<b>CTE A699</b>	<b>Thesis</b>	<b>1-6 CR</b>
Contact Hours: 1 + 5-30 Registration Restrictions: Graduate standing and advisor permission. Completion or concurrent enrollment in research courses by advisement. Facilitates the development of a thesis and presentation jointly approved by the student's graduate committee and the student. Supports journal quality research that coincides with the student's professional objectives.		

## CWLA - Creative Writing & Literary Arts

*Undergraduate-level CWLA courses are offered through the College of Arts & Sciences*  
*Administration/Humanities Building (ADM), Room 101, 786-4355*  
*<http://english.uaa.alaska.edu>*

*Graduate-level CWLA courses are offered through the College of Arts and Sciences*  
*Administration/Humanities Building (ADM), Room 270, 786-4394*  
*[www.uaa.alaska.edu/cwla](http://www.uaa.alaska.edu/cwla)*

<b>CWLA A259</b>	<b>Short Format: Introduction to Creative Writing</b>	<b>1 CR</b>
Contact Hours: 1 + 0 Special Note: May be repeated twice for elective credit with a different topic. Introduction to one creative writing genre in short one-credit workshops.		
<b>CWLA A260</b>	<b>Introduction to Creative Writing</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ENGL A111 with minimum grade of C. Special Note: May be repeated once for elective credit. Introduction to creative writing in multiple genres. Reading fiction, nonfiction, and poetry; analysis of stylistic features; participation in writing workshop; and production of written exercises and texts.		
<b>CWLA A261</b>	<b>Art/Literary Magazine Production</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Special Fees. Special Note: May be taken twice for credit. Edit and prepare manuscripts for publication, layout magazine pages for the printer, and learn about other aspects of magazine production. Solicit, evaluate, and select material appropriate for a literary magazine: short stories, poetry, essays, artwork, etc. Also covers publicity, marketing, and distribution of the finished publication.		
<b>CWLA A262</b>	<b>Introduction to Creative Writing: Poetry</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Examines the fundamental problems and questions of writing poetry. Includes discussing and practicing technique and process and other more philosophical issues of poetry. Advances student understanding of the elements of poetry.		
<b>CWLA A263</b>	<b>Introduction to Creative Writing: Fiction</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Examines the fundamental problems and questions of writing fiction. Includes discussing and practicing technique and process and other more philosophical issues of fiction. Advances student understanding of the elements of fiction.		
<b>CWLA A264</b>	<b>Introduction to Creative Writing: Drama</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Examines the fundamental problems and questions of writing drama. Includes discussing and practicing matters of technique and process and other more philosophical issues of drama. Advances student understanding of the elements of drama.		
<b>CWLA A265</b>	<b>Introduction to Creative Writing: Nonfiction</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Examines the fundamental problems and questions of writing creative nonfiction. Includes discussing and practicing matters of technique and process and other more philosophical issues of nonfiction. Advances student understanding of the elements of creative nonfiction and types of nonfiction, including the personal essay, memoir and reportage.		
<b>CWLA A266</b>	<b>Introduction to Creative Writing: Children's Stories</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Examines the fundamental problems and questions of writing children's stories. Includes discussing and practicing matters of technique and process and other more philosophical issues of children's stories. Advances student understanding of the elements of children's stories.		

## Course Descriptions

<b>CWLA A352</b>	<b>Writers' Workshop: Poetry</b>	<b>3 CR</b>	<b>CWLA A650A</b>	<b>Creative Writing Internship</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: CWLA A260 with minimum grade of C and ENGL A111 with minimum grade of C. Special Note: May be repeated once for elective credit. Introduction to techniques of writing poetry, with instructor-guided peer critique of each student's work.			Contact Hours: 0 + 20 Registration Restrictions: Students must be MFA candidates nominated by the Creative Writing and Literary Arts faculty and graduate standing. Special Note: May be repeated once for credit. An internship for students in the MFA Program. Students selected for this internship will work with the editor of Alaska Quarterly Review. Students assigned to AQR will learn how to produce, manage and edit a nationally recognized literary journal.		
<b>CWLA A362</b>	<b>Writers' Workshop: Fiction</b>	<b>3 CR</b>	<b>CWLA A650B</b>	<b>Creative Writing Internship</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: CWLA A260 with minimum grade of C and ENGL A111 with minimum grade of C. Special Note: May be repeated once for elective credit. Introduction to techniques of writing fiction, with intensive critique of each student's work.			Contact Hours: 0 + 12 Registration Restrictions: Students must be MFA candidates nominated by the Creative Writing and Literary Arts faculty and graduate standing. Special Note: May be repeated once for credit. An internship for students in the MFA Program. Students selected for this internship will work with the features editor of the "Anchorage Daily News." Students will learn how to report, edit, research, and write for the "Anchorage Daily News."		
<b>CWLA A372</b>	<b>Writers' Workshop: Nonfiction</b>	<b>3 CR</b>	<b>CWLA A650C</b>	<b>Creative Writing Internship</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: CWLA A260 with minimum grade of C and ENGL A111 with minimum grade of C. Special Note: May be repeated once for elective credit. Study of creative nonfiction including analysis of representative texts and practice in writing nonfiction.			Contact Hours: 0 + 12 Registration Restrictions: Students must be MFA candidates nominated by the Creative Writing and Literary Arts faculty and graduate standing. Special Note: May be repeated once for credit. An internship for students in the MFA Program. Students selected for this internship will work as editors of Inklings, the campus literary magazine. They will supervise all aspects of the magazine and make editorial decisions concerning the contents of the magazine. They will also mentor undergraduates on the staff and/or undergraduates who are contributors to the magazine, as appropriate.		
<b>CWLA A382</b>	<b>Writers' Workshop: Drama and Screenwriting</b>	<b>3 CR</b>	<b>CWLA A652</b>	<b>Graduate Writer's Workshop: Poetry</b>	<b>5 CR</b>
Contact Hours: 3 + 0 Prerequisites: CWLA A260 with minimum grade of C and ENGL A111 with minimum grade of C. Special Note: May be repeated once for elective credit. Introduction to techniques of writing drama for stage and screen, with instructor-guided peer critique of each student's work.			Contact Hours: 5 + 0 Registration Restrictions: Admission to MFA program in creative writing. Grade Mode: Pass/No Pass. Special Fees. Special Note: May be repeated twice for degree credit. Advanced study and practice of the forms and techniques of poetry with close analysis of each student's creative work.		
<b>CWLA A452</b>	<b>Advanced Writers' Workshop: Poetry</b>	<b>3 CR</b>	<b>CWLA A662</b>	<b>Graduate Writer's Workshop: Fiction</b>	<b>5 CR</b>
Contact Hours: 3 + 0 Prerequisites: CWLA A352 with minimum grade of C or CWLA A362 with minimum grade of C or CWLA A372 with minimum grade of C or CWLA A382 with minimum grade of C. Registration Restrictions: Prior completion of CWLA A352 and ENGL A351 recommended. Special Note: May be repeated once for elective credit. Practice in writing poetry, with instructor-guided peer critique of each student's work.			Contact Hours: 5 + 0 Registration Restrictions: Admission to MFA program in creative writing. Grade Mode: Pass/No Pass. Special Fees. Special Note: May be repeated twice for degree credit. Advanced study and practice of the forms and techniques of fiction with close analysis of each student's creative work.		
<b>CWLA A462</b>	<b>Advanced Writers' Workshop: Fiction</b>	<b>3 CR</b>	<b>CWLA A672</b>	<b>Graduate Writer's Workshop: Literary Nonfiction</b>	<b>5 CR</b>
Contact Hours: 3 + 0 Prerequisites: CWLA A352 with minimum grade of C or CWLA A362 with minimum grade of C or CWLA A372 with minimum grade of C or CWLA A382 with minimum grade of C. Registration Restrictions: Prior completion of CWLA A362 and [ENGL A361 or ENGL A363] recommended. Special Note: May be repeated once for elective credit. Advanced practice in writing fiction in an intensive workshop format.			Contact Hours: 5 + 0 Registration Restrictions: Admission to MFA program in creative writing. Grade Mode: Pass/No Pass. Special Fees. Special Note: May be repeated twice for degree credit. Advanced study and practice of the forms and techniques of literary nonfiction with close analysis of each student's creative work.		
<b>CWLA A472</b>	<b>Advanced Writers' Workshop: Nonfiction</b>	<b>3 CR</b>	<b>CWLA A690</b>	<b>Studies in Form and Theory</b>	<b>5 CR</b>
Contact Hours: 3 + 0 Prerequisites: CWLA A352 with minimum grade of C or CWLA A362 with minimum grade of C or CWLA A372 with minimum grade of C or CWLA A382 with minimum grade of C. Registration Restrictions: Prior completion of CWLA A372 and ENGL A371 recommended. Special Note: May be repeated once for elective credit. Advanced study and practice of creative nonfiction including analysis of formal elements in representative texts, application of theoretical perspectives, production of numerous texts, and critiques of student work in workshop format.			Contact Hours: 5 + 0 Registration Restrictions: Admission to MFA program in creative writing. Grade Mode: Pass/No Pass. Special Note: May be repeated twice for degree credit with a change in subtitle. An examination of one or more forms of literary art emphasizing elements discernible in craft and theory as it applies to both style and content.		
<b>CWLA A482</b>	<b>Advanced Writers' Workshop: Drama and Screenwriting</b>	<b>3 CR</b>	<b>CWLA A695</b>	<b>Literary Practicum</b>	<b>1-5 CR</b>
Contact Hours: 3 + 0 Prerequisites: CWLA A352 with minimum grade of C or CWLA A362 with minimum grade of C or CWLA A372 with minimum grade of C or CWLA A382 with minimum grade of C. Registration Restrictions: CWLA A382 and [ENGL A381 or ENGL A383] recommended. Special Note: May be repeated once for elective credit. Practice in writing drama for stage and screen, with instructor-guided peer critique of each student's work.			Contact Hours: 0 + 3-15 Registration Restrictions: Admission to MFA program in creative writing; permission of program director. Grade Mode: Pass/No Pass. Special Note: Practicum may be taken only after satisfactorily completing 20 credits of coursework. Provides students with opportunities for professional development in writing, publishing, or teaching by focusing on literary projects of their own devising or by collaborating on projects with public, educational, or literary communities. Student is responsible for planning, organizing, and submitting projects to program director.		
			<b>CWLA A698</b>	<b>Individual Research</b>	<b>1-6 CR</b>
			Contact Hours: 3 + 0 Registration Restrictions: Faculty permission. The student conducts an individual research project under the close supervision of an instructor.		

**CWLA A699 Thesis 5 CR**  
 Contact Hours: 0 + 15  
 Registration Restrictions: Admission to MFA program in creative writing; permission of advisor.  
 Grade Mode: Pass/No Pass.  
 Special Note: Must have satisfactorily completed 30 credits to enroll. May be repeated for a total of 10 credits.  
 Book-length collection of the graduate student's creative work, introduced by an in-depth analytical essay addressing the body of the creative work in terms of process, craft, and theory. Also part of the thesis evaluation is an annotated bibliography, oral defense of the thesis, and public reading.

## DA - Dental Assisting

*Offered through the Community & Technical College  
 Allied Health Sciences Building (AHS), Room 160, 786-6929  
[www.uaa.alaska.edu/ctc/programs/alliedhealth/index.cfm](http://www.uaa.alaska.edu/ctc/programs/alliedhealth/index.cfm)*

**DA A101 Essentials of Dentistry 3 CR**  
 Contact Hours: 3 + 0  
 Registration Restrictions: Departmental approval.  
 Special Fees.  
 Provides foundations in general dentistry pertaining to dental assisting. Introduces basic dental procedures, safety, dental specialties, and dental anatomy.

**DA A102 Infection Control in Dentistry 2/3 CR**  
 Contact Hours: 2 or 0+2  
 Registration Restrictions: Departmental approval.  
 Special Fees.  
 Introduces infection control principles necessary for dental auxiliaries to operate safely within a dental office and to prevent the spread of microbial diseases.

**DA A110 Dental Radiography 3 CR**  
 Contact Hours: 3 + 0  
 Registration Restrictions: Departmental approval.  
 Special Fees.  
 Defines radiation physics and biology with emphasis on radiation health, safety, protection, radiation production, x-ray machines, components and function, and image receptors. Includes study of essential radiographic techniques, film processing techniques, and identification of radiographic anatomy.

**DA A110L Dental Radiography Laboratory 1 CR**  
 Contact Hours: 0 + 2  
 Prerequisites: (DA A110 or concurrent enrollment).  
 Registration Restrictions: Departmental approval.  
 Special Fees.  
 Applies information learned in Dental Radiography (DA A110) lecture on radiation health, safety, protection, x-ray machines, components and function, and image receptors. Includes study of essential radiographic techniques, film processing techniques, and identification of radiographic anatomy.

**DA A127 Dental Office Administration 3 CR**  
 Contact Hours: 3 + 0  
 Registration Restrictions: Instructor approval  
 Special Fees.  
 Provides entry-level foundation of dental reception and practice management as it pertains to dental assisting. Introduces dental front-office skills and dental services management.

**DA A130 Chairside Techniques I 4 CR**  
 Contact Hours: 2 + 4  
 Registration Restrictions: Departmental approval.  
 Special Fees.  
 Introduces beginning skills necessary to function as a chairside dental assistant, and basic laboratory applications of restorative materials and alginates. Emphasis on developing clinical skills in four-handed dentistry techniques.

**DA A150 Biomedical and Dental Sciences for Dental Assistants 3 CR**  
 Contact Hours: 3 + 0  
 Prerequisites: DA A101.  
 Registration Restrictions: Departmental approval.  
 Special Fees.  
 Presents dental terminology, anatomy of oral structures, anatomy and physiology of the head and neck. Introduces the body systems, oral embryology and histology, oral pathology and pharmacology as they relate to dental assisting.

**DA A160 Materials in Dentistry 3 CR**  
 Contact Hours: 2 + 2  
 Registration Restrictions: Departmental approval.  
 Corequisite: DA A160L.  
 Special Fees.  
 Examines properties and manipulation of gypsum, impression materials, custom trays, night guards, sealants, and bleaching trays. Includes the physical and chemical properties of restorative materials.

**DA A195A Clinical Practicum I 1 CR**  
 Contact Hours: 0 + 6  
 Registration Restrictions: Instructor approval  
 Grade Mode: Pass/No Pass.  
 Special Fees.  
 Provides beginning dental assisting experiences in a clinical setting.

**DA A195B Dental Assisting Practicum II 3 CR**  
 Contact Hours: 0 + 16  
 Prerequisites: DA A195A and (DA A122 or concurrent enrollment) and (DA A125 or concurrent enrollment) and (DA A126 or concurrent enrollment).  
 Grade Mode: Pass/No Pass.  
 Special Fees.  
 A clinical, off-campus course for dental assisting students who have completed all program requirements in the fall and spring semesters. Students are placed in general and specialty dental offices. Direct supervision is provided by the participating dentist and program faculty. Seminars are held to discuss student progress and experiences.

**DA A201 Chairside Techniques II 4 CR**  
 Contact Hours: 2 + 4  
 Prerequisites: DA A110 and DA A110L and DA A130.  
 Registration Restrictions: Departmental approval.  
 Special Fees.

Continues Chairside Techniques I and Dental Radiography. Emphasizes advanced dental assisting skills and provides practice for those previously acquired. Covers advanced rubber dam application, panoramic procedures, exposing radiographs on patients, vital signs, medical and dental histories, temporary crown construction, and oral health and nutrition.

**DA A202 Dental Specialties for Dental Auxiliaries 3 CR**  
 Contact Hours: 2 + 2  
 Prerequisites: DA A101 and DA A130.  
 Registration Restrictions: Departmental approval.  
 Special Fees.  
 Expands and applies information and skills necessary in endodontics, oral and maxillofacial surgery, orthodontics, pediatrics, periodontics, and fixed/removable prosthodontics.

**DA A295A Clinical Practicum II 3 CR**  
 Contact Hours: 0 + 15  
 Registration Restrictions: Departmental approval.  
 Grade Mode: Pass/No Pass.  
 Special Fees.  
 Applies clinical dental assisting experience in an extramural setting. Students will be assigned to one or more dental offices. Assisting in general dentistry is emphasized.

**DA A295B Clinical Practicum III 2 CR**  
 Contact Hours: 0 + 5  
 Registration Restrictions: Departmental approval.  
 Grade Mode: Pass/No Pass.  
 Applies clinical dental assisting experience in an instructional setting. Students will participate in the dental assisting clinic working with novice students.

## DH - Dental Hygiene

*Offered through the Community & Technical College  
 Allied Health Sciences Building (AHS), Room 160, 786-6929  
[www.uaa.alaska.edu/ctc/programs/alliedhealth/index.cfm](http://www.uaa.alaska.edu/ctc/programs/alliedhealth/index.cfm)*

**DH A201 Oral Histology and Embryology 2 CR**  
 Contact Hours: 2 + 0  
 Prerequisites: BIOL A111 and BIOL A112.  
 Registration Restrictions: Departmental approval.  
 Special Fees.  
 Presents information on histology and embryology of the oral cavity, with emphasis on dental and periodontal structures. Includes discussion on dental accretions and cariology.

## Course Descriptions

### DH A202 Basic Techniques for Dental Hygienists 7 CR

Contact Hours: 3 + 8

Prerequisites: BIOL A111 and BIOL A112 and [BIOL A240 or BIOL A241].

Registration Restrictions: Departmental approval; BLS certification.

Special Fees.

Introduces basic procedures used in dental hygiene treatment, including data gathering, patient education, and basic instrumentation. Emphasizes skill development in basic instrumentation and infection control.

### DH A204 Anatomy of the Orofacial Structures 2 CR

Contact Hours: 2 + 0

Prerequisites: BIOL A111 and BIOL A112.

Registration Restrictions: Departmental approval.

Special Fees.

Provides students with anatomical knowledge necessary to perform technical skills within the oral cavity.

### DH A222 Adjunctive Techniques for Dental Hygienists 1.5 CR

Contact Hours: 1 + 1.5

Prerequisites: DA A110 with minimum grade of C and DA A110L with minimum grade of C and DH A201 with minimum grade of C and DH A202 with minimum grade of C and DH A204 with minimum grade of C.

Registration Restrictions: Departmental approval; BLS certification

Special Fees.

Introduces adjunctive techniques used in dental hygiene treatment. Emphasizes skills applied in the practice of dental hygiene, such as polishing, sealant placement, and fluoride application.

### DH A292D Clinical Seminar I 1 CR

Contact Hours: 0 + 3

Prerequisites: DH A202 with minimum grade of C.

Registration Restrictions: Departmental approval.

Corequisite: DH A295D.

Grade Mode: Pass/No Pass.

Special Fees.

Provides procedural instruction and general support for Clinical Practicum I. Emphasis is placed on review of treatment and case presentations.

### DH A295D Clinical Practicum I 4 CR

Contact Hours: 0 + 12

Prerequisites: DH A202 with minimum grade of C.

Registration Restrictions: Departmental approval, BLS certification, and required immunizations.

Corequisite: DH A292D.

Special Fees.

Provides opportunity for students to achieve clinical skill competency with patients presenting as periodontally healthy or with signs of gingivitis. This course is conducted in a clinical setting with volunteer patients and individualized instruction.

### DH A310 Oral Pain Control 3 CR

Contact Hours: 1.5 + 3

Prerequisites: DH A204 with minimum grade of C and DH A295D with minimum grade of C and DH A365 with minimum grade of C.

Registration Restrictions: Departmental approval; BLS certification.

Special Fees.

Special Note: Satisfies requirements of 12 ACC 28.340, Alaska State Dental Statutes and eligibility to take the Western Regional Board Examination for certification of dental hygienists to administer local anesthetics. It also meets regulation requirements for dental hygienists to administer and monitor nitrous oxide analgesia (12 AAC 18.720).

Examines pharmacology, armamentarium, anatomical and physiological considerations, administration techniques, and potential complications of local anesthesia. Analyzes pharmacology, administration techniques, medical contraindications, and management complications accompanying administration and monitoring of nitrous oxide.

### DH A311 Periodontics 2 CR

Contact Hours: 2 + 0

Prerequisites: [BIOL A240 with minimum grade of C or BIOL A241 with minimum grade of C] and DH A201 with minimum grade of C and DH A202 with minimum grade of C.

Registration Restrictions: Departmental approval.

Special Fees.

Uses previous knowledge of periodontal structures and microbiology to enable the student to assess periodontal conditions and formulate treatment plans.

### DH A312 Advanced Techniques for Dental Hygienists 3 CR

Contact Hours: 1 + 4

Prerequisites: DH A311 with minimum grade of C.

Registration Restrictions: Departmental approval; BLS certification.

Special Fees.

Provides instruction in advanced procedures used in dental hygiene treatment, including root planing, ultrasonic scaling, and local chemotherapeutics.

### DH A314 Pathology of Oral Tissues 2 CR

Contact Hours: 2 + 0

Prerequisites: [BIOL A240 with minimum grade of C or BIOL A241 with minimum grade of C] and DH A202 with minimum grade of C and DH A204 with minimum grade of C.

Registration Restrictions: Departmental approval.

Special Fees.

Applies and expands knowledge of anatomy and microbiology to familiarize the student with signs, symptoms, and contagion recognition of selected diseases of the oral cavity, and with systemic diseases that manifest themselves in the oral cavity.

### DH A316 Professional Dental Hygiene Practice 1.5 CR

Contact Hours: 1.5 + 0

Prerequisites: DH A392C with minimum grade of C.

Registration Restrictions: Departmental approval.

Special Fees.

Discusses ethical and legal concerns in the dental hygiene profession. Explores issues relevant to the practice of dental hygiene.

### DH A321 Current Periodontal Therapies 2 CR

Contact Hours: 2 + 0

Prerequisites: DH A311 with minimum grade of C.

Registration Restrictions: Departmental approval.

Special Fees.

Emphasizes theoretical instruction and application of current nonsurgical techniques in the treatment of periodontal disease.

### DH A324 Community Dental Health I 2 CR

Contact Hours: 2 + 0

Prerequisites: DH A314 with minimum grade of C and DH A395C with minimum grade of C.

Registration Restrictions: Departmental approval; BLS certification.

Special Fees.

Provides theoretical instruction on community dental health epidemiology, and discusses public health research methodology. Includes development and implementation of a basic community dental health care project.

### DH A350 Basic Restorative Techniques 3 CR

Contact Hours: 1 + 6

Registration Restrictions: Second year dental hygiene student, licensed dental hygienist, or certified dental assistant; departmental approval.

Special Fees.

Builds on previous coursework to introduce restorative skills for allied dental personnel. Provides supervised laboratory instruction on typodonts, with emphasis on Class I and Class II restorations.

### DH A365 Pharmacology for Dental Hygienists 2 CR

Contact Hours: 2 + 0

Prerequisites: CHEM A104 with minimum grade of C and DH A202 with minimum grade of C.

Registration Restrictions: Departmental approval.

Special Fees.

Discusses general pharmacological concepts and applications; nature of drug reactions; individual response to drugs; principles of neuropharmacology; toxicology; anti-infective therapy; and effects of drugs on cardiovascular, endocrine, and other body systems. Emphasizes drugs used in dentistry.

### DH A390 Selected Topics in Dental Hygiene 1-6 CR

Contact Hours: 0-6 + 0-18

Registration Restrictions: Departmental approval.

Special Note: May be repeated for credit with change of subtitle. A maximum of 6 credits may be applied to the Bachelor of Science degree in Dental Hygiene.

Studies emerging trends, standards, and theories in dental hygiene. Explores opportunities for clinical application.

### DH A392C Clinical Seminar II 1 CR

Contact Hours: 0 + 3

Prerequisites: DH A222 with minimum grade of C and DH A295D with minimum grade of C and DH A311 with minimum grade of C.

Registration Restrictions: Departmental approval.

Corequisite: DH A395C.

Grade Mode: Pass/No Pass.

Special Fees.

Provides discussion and evaluation of clinical experiences in Clinical Practicum II. Emphasizes review of treatment and case presentations.

<b>DH A392D</b>	<b>Clinical Seminar III</b>	<b>1 CR</b>	<b>DH A495B</b>	<b>Instructional Practicum in Dental Hygiene</b>	<b>1-4 CR</b>
<p>Contact Hours: 0 + 3 Prerequisites: DH A321 with minimum grade of C and DH A395C with minimum grade of C. Registration Restrictions: Departmental approval. Corequisite: DH A395D. Grade Mode: Pass/No Pass. Special Fees. Provides discussion and evaluation of clinical experiences in Clinical Practicum III. Emphasizes review of treatment and case presentations of patients exhibiting moderate to advanced periodontal disease.</p>			<p>Contact Hours: 0 + 2-8 Prerequisites: DH A321 with minimum grade of C and DH A395C with minimum grade of C. Registration Restrictions: Instructor permission, departmental approval, and cardiopulmonary resuscitation certification. Special Note: Placement availability may be limited. May be repeated twice for a maximum of 4 credits. Emphasizes practical teaching experience in laboratory or clinical sessions. Combines classroom preparation, presentation of material, competency assessment, and lecture correlation under the supervision of program faculty.</p>		
<b>DH A395C</b>	<b>Clinical Practicum II</b>	<b>5 CR</b>	<b>DH A495C</b>	<b>Restorative Clinical Practicum</b>	<b>1 CR</b>
<p>Contact Hours: 0 + 15 Prerequisites: DH A222 with minimum grade of C and DH A295D with minimum grade of C and DH A311 with minimum grade of C. Registration Restrictions: Departmental approval; BLS certification, and required immunizations. Corequisite: DH A392C. Special Fees. Provides opportunity for students to achieve clinical skill competency with patients presenting with mild to moderate periodontal disease. Conducted in a clinical setting with volunteer patients and individualized instruction.</p>			<p>Contact Hours: 0 + 3 Prerequisites: DH A450 with minimum grade of C. Registration Restrictions: Departmental approval; current cardiopulmonary resuscitation certification. Grade Mode: Pass/No Pass. Special Fees. Applies restorative function skills in the clinical situation under direct supervision of clinical faculty.</p>		
<b>DH A395D</b>	<b>Clinical Practicum III</b>	<b>6 CR</b>	<b>DH A495E</b>	<b>Rural Practicum in Dental Hygiene</b>	<b>1-3 CR</b>
<p>Contact Hours: 0 + 18 Prerequisites: DH A321 with minimum grade of C and DH A395C with minimum grade of C. Registration Restrictions: Departmental approval, BLS certification, and required immunizations. Corequisite: DH A392D. Special Fees. Provides opportunity for students to achieve clinical skill competency with patients presenting with moderate to advanced periodontal disease. Conducted in a clinical setting with volunteer patients and individualized instruction.</p>			<p>Contact Hours: 0 + 3-9 Registration Restrictions: AAS in Dental Hygiene; departmental approval; current cardiopulmonary resuscitation certification. Grade Mode: Pass/No Pass. Special Note: May be repeated twice for a maximum of 3 credits. Applies dental hygiene skills in the rural clinical situation under the supervision of clinical faculty. Emphasizes dental needs of rural communities.</p>		
<b>DH A395E</b>	<b>Community Practicum in Dental Hygiene</b>	<b>1-3 CR</b>	<b>DLS - Disability &amp; Long-Term Supports</b>		
<p>Contact Hours: 0 + 3-9 Prerequisites: DH A295D. Registration Restrictions: Departmental approval and current cardiopulmonary resuscitation certification. Grade Mode: Pass/No Pass. Special Note: May be repeated once for a maximum of 3 credits. Applies basic dental hygiene skills in the clinical situation under supervision of clinical faculty. Emphasizes Periodontal Case Type I and II patient care.</p>			<p><i>Offered through the College of Health &amp; Social Welfare UAA Center for Human Development 2702 Gambell Street, Suite 103, 272-8270 <a href="http://www.alaskachd.org">www.alaskachd.org</a></i></p>		
<b>DH A424</b>	<b>Community Dental Health II</b>	<b>3 CR</b>	<b>DLS A101</b>	<b>Introduction to Children's Behavioral Health</b>	<b>3 CR</b>
<p>Contact Hours: 2 + 2 Prerequisites: DH A324 with minimum grade of C and [STAT A252 with minimum grade of C or STAT A253 with minimum grade of C]. Registration Restrictions: Departmental approval; Completion of GER Tier I (basic college-level skills) courses. Course Attributes: UAA GER Integrative Capstone. Special Fees. Presents advanced theoretical instruction on community dental health and research methodology, with emphasis on project design, development, and implementation for diverse populations.</p>			<p>Contact Hours: 2 + 2 Registration Restrictions: Department approval. Special Fees. Assists students in developing fundamental knowledge required for work in the children's behavioral health field. Topics cover children (ages 0-18) who demonstrate challenging behaviors related to behavioral health diagnoses. Concepts will include treatment environment basics, typical and atypical child development, legal and ethical issues, and factors that influence treatment outcomes. Course includes a 30-hour practicum.</p>		
<b>DH A450</b>	<b>Advanced Restorative Techniques</b>	<b>1 CR</b>	<b>DLS A201</b>	<b>Skill Basics in Children's Behavioral Health</b>	<b>3 CR</b>
<p>Contact Hours: 0 + 3 Prerequisites: DH A350 with minimum grade of C. Registration Restrictions: Departmental approval. Special Fees. Expands skills in restorative functions. Provides supervised laboratory instruction on typodonts, with emphasis on anterior and multiple-surface posterior restorations.</p>			<p>Contact Hours: 2 + 2 Registration Restrictions: Department approval. Special Fees. Assists students in developing core skills for children's behavioral health field. Students will explore ethics and ethical practices, legal requirements in residential care, boundaries in therapeutic relationships, culturally responsive treatment adaptations, recordkeeping and documentation standards. Course includes a 30-hour practicum.</p>		
<b>DH A460</b>	<b>Instructional Concepts in Dental Hygiene</b>	<b>1 CR</b>	<b>DLS A205</b>	<b>Teaching Social Skills to Youth in Children's Behavioral Health</b>	<b>4 CR</b>
<p>Contact Hours: 1 + 0 Prerequisites: DH A395C with minimum grade of C. Registration Restrictions: Departmental approval. Emphasizes foundational concepts in post-secondary instructional methodology specific for dental hygiene. Includes university organizational structure, course content guide and syllabus development, student privacy, American Dental Association standards, and instructor calibration.</p>			<p>Contact Hours: 2 + 4 Prerequisites: DLS A201. Registration Restrictions: Department approval. Special Fees. Assists students in developing core skills used to shape children's (ages 0-18) behavior in a behavioral health setting. Students develop a basic understanding of learning theory and apply that understanding to communication strategies, teaching methods, and crisis prevention interventions. Course includes a 60-hour practicum.</p>		
			<b>DLS A206</b>	<b>Positive Behavioral Supports in Children's Behavioral Health</b>	<b>3 CR</b>
			<p>Contact Hours: 2 + 2 Prerequisites: DLS A205. Registration Restrictions: Department approval. Special Fees. Students will extend knowledge of learning theory to functional behavior assessments of problem behaviors in children (age 0-18) and appropriate interventions. Students will learn to develop behavior support plans using non-aversive interventions for challenging and problematic behaviors with children. Course includes a 30-hour practicum.</p>		

## Course Descriptions

**DLS A385 Working with Traumatized Children 3 CR**  
Contact Hours: 2 + 2  
Prerequisites: DLS A101.  
Registration Restrictions: Department approval.  
Special Fees.

Students will differentiate between types of trauma that children can experience and how trauma may affect their treatment outcomes. Students will learn safe and supportive trauma-informed interventions, as well as strategies to reduce the effects of caregiver fatigue. Course includes a 30-hour practicum.

## DN - Dietetics & Nutrition

*Offered through the Community & Technical College*

*Lucy Cuddy Hall (CUDY), Room 126, 786-4728*

*[www.uaa.alaska.edu/ctc/programs/culinary](http://www.uaa.alaska.edu/ctc/programs/culinary)*

**DN A100 Introduction to Nutrition and Dietetics 1 CR**  
Contact Hours: 1 + 0  
Major Restriction: Must be Nutrition or Pre-Major Dietetics major.

Introduces students to the professional opportunities in the field of nutrition and dietetics with an emphasis on academic preparation, acquisition of professional credentials and career ladder.

**DN A101 Principles of Nutrition 3 CR**  
Contact Hours: 3 + 0

Studies nutrition in the life cycle, including food sources and requirements of nutrients; physiological and metabolic aspects of nutrient function; food choices, selection, cultural and contemporary issues of concern to consumers.

**DN A145 Child Nutrition 3 CR**  
Contact Hours: 3 + 0

Introduces the nutritional needs and dietary recommendations for newborns, infants, toddlers, preschool and school-age children, and adolescents. Covers common childhood and adolescent conditions and corresponding nutrition interventions.

**DN A147 Geriatric Nutrition 3 CR**  
Contact Hours: 3 + 0

Focuses on the nutritional needs of the older person, based on physiological changes in aging, with emphasis on nutritionally related diseases, procuring and preparing food, and assistive care. Designed for those preparing for careers in elderly care and for those interested in learning how to care for themselves in later years.

**DN A151 Nutrition Through the Life Cycle 3 CR**  
Contact Hours: 3 + 0

Introduces nutritional needs and dietary recommendations through the life cycle: newborns, infants, toddlers, preschool and school-age children, adolescents, adults and the elderly. Covers common childhood, adolescent, adult and elderly conditions and corresponding nutritional interventions.

**DN A155 Survey of Alaska Native Nutrition 3 CR**  
Contact Hours: 3 + 0

Surveys traditional foods and their role in the physical, social, and mental health issues of Alaska Natives within six geo-social regions of Alaska (Arctic/Western, Interior, Aleutian Chain, Southeast, Southcentral, and Urban Alaska).

**DN A203 Nutrition for Health Sciences 3 CR**  
Contact Hours: 3 + 0

Prerequisites: [(BIOL A112 or concurrent enrollment) and (BIOL A112L or concurrent enrollment)] or (CHEM A104 or concurrent enrollment).

Studies nutrition in the life cycle including food sources and requirements of nutrients; physiological and metabolic aspects of nutrient function. Reviews disease states, food selection, cultural and contemporary issues of concern to health professionals.

**DN A215 Sports Nutrition 3 CR**  
Contact Hours: 3 + 0

Prerequisites: [BIOL A111 and BIOL A111L] or BIOL A113.

Examines nutrition guidelines and nutrient intakes with emphasis on the health and performance implications for the physically active individual, and the individual wanting to pursue increased physical activity. Includes review of body composition and weight control.

**DN A255 Concepts of Healthy Food 3 CR**  
Contact Hours: 3 + 0

Prerequisites: DN A101 with minimum grade of C or DN A203 with minimum grade of C.

Explores the basics of food preparation including cooking, shopping, food handling and safety, meal management, menu writing, recipe modification and evaluation.

**DN A260 Food Science 3 CR**  
Contact Hours: 3 + 0

Prerequisites: DN A255 with minimum grade of C.

Builds on basic principles of nutrition and food preparation to study chemical, physical and mechanical properties of foods as well as reactions to temperature, technique and technology.

**DN A301 Nutrition Assessment 2 CR**  
Contact Hours: 2 + 1

Prerequisites: DN A203 with minimum grade of C and MATH A107 with minimum grade of C and [PSY A111 with minimum grade of C or SOC A101 with minimum grade of C].

Major Restriction: Must be Nutrition or Pre-Major Dietetics major.

Special Note: Requires access to a registered dietitian for a 16-hour practicum.

Explores methods of nutrition assessment in humans to evaluate dietary intake and body composition including the use of biological markers of human nutritional status.

**DN A303 Preventive and Therapeutic Nutrition 3 CR**  
Contact Hours: 3 + 0

Prerequisites: DN A101 with minimum grade of C or DN A203 with minimum grade of C.

Explores role of food and dietary habits in prevention and management of diseases such as disorders of the upper and lower gastrointestinal tract, diabetes, heart disease, cancer, liver diseases, renal diseases, and HIV infection. Covers medical nutrition therapy for diseases by means of alterations in food consumption.

**DN A310 Nutrition Communication 2 CR**  
Contact Hours: 2 + 0

Prerequisites: DN A203 with minimum grade of C and ENGL A111 with minimum grade of C and [PSY A111 with minimum grade of C or SOC A101 with minimum grade of C].

Major Restriction: Must be Nutrition or Pre-Major Dietetics major.

Registration Restrictions: COMM course

Integrates theory and practice in communications in nutrition and dietetics.

Provides practice in employee training, nutritional educational materials development, public speaking, and media presentation strategies.

**DN A311 Nutrition Counseling 1 CR**  
Contact Hours: 1 + 1

Prerequisites: DN A203 with minimum grade of C and ENGL A111 with minimum grade of C and [PSY A111 with minimum grade of C or SOC A101 with minimum grade of C].

Registration Restrictions: COMM course

Special Note: Requires access to a registered dietitian for a 16-hour practicum.

Provides theory and practice in nutrition counseling including behavior modification techniques, processes of cognitive change and cross-cultural counseling.

**DN A315 World Food Patterns 3 CR**  
Contact Hours: 3 + 0

Prerequisites: DN A101 or DN A203.

Explores the role of food, including therapeutic uses of food, and nutrition in the human condition. Examines regional and ethnic influences on food selection and preparation.

**DN A350 Foodservice Systems and Quantity Foods 3 CR**  
Contact Hours: 3 + 3

Prerequisites: DN A255 with minimum grade of C.

Registration Restrictions: Passing score (greater than or equal to 70%) on ServSafe exam.

Special Note: Includes a 40-hour practicum in a large foodservice operation (hospital-based for dietetics students).

Presents principles and theories of foodservice systems; menu planning; development, standardization, adjustment and costing of quantity recipes; procurement and production of quantity food.

**DN A355 Weight Management and Eating Disorders 3 CR**  
Contact Hours: 3 + 0

Prerequisites: DN A101 or DN A203.

Analyzes the impact of obesity and eating disorders on the individual and society. Reviews etiology, incidence, socioeconomic influences, pathogenesis and treatments. Examines treatment techniques including modification of diet, activity and behavior.

**DN A375 Research Methods in Nutrition and Dietetics 3 CR**  
Contact Hours: 3 + 0

Prerequisites: STAT A252 with minimum grade of C.

Major Restriction: Must be Nutrition or Pre-Major Dietetics major.

Presents fundamentals of research knowledge and skills in the profession of nutrition and dietetics. Addresses research designs commonly used, principles of evidence-based practice, evidence analysis procedures, translational research and outcomes research methodology.

<b>DN A401</b>	<b>Medical Nutrition Therapy I</b>	<b>3 CR</b>	<b>DN A695C</b>	<b>Practicum in Clinical Nutrition</b>	<b>4 CR</b>
Contact Hours: 3 + 0 Prerequisites: DN A302 with minimum grade of C and DN A310 with minimum grade of C and DN A311 with minimum grade of C. Integrates the role of Medical Nutrition Therapy into the treatment of pathological conditions. Applies the Nutrition Care Process in common medical conditions classified as overweight and obesity, gastrointestinal tract disorders, cardiovascular diseases, cancer, psychiatric conditions and pulmonary diseases.			Contact Hours: 0 + 22 Registration Restrictions: Bachelor's degree that satisfies didactic program in dietetics (DPD) requirements set by the American Dietetic Association. Current immunizations are required for specific internship sites. Corequisite: DN A692A and DN A695D. Grade Mode: Pass/No Pass. Practicum experience in clinical nutrition for dietetic interns, necessary to meet American Dietetic Association accreditation standards and to prepare future dietitians for professional practice as Registered Dietitians.		
<b>DN A402</b>	<b>Medical Nutrition Therapy II</b>	<b>3 CR</b>	<b>DN A695D</b>	<b>Practicum in Community Nutrition</b>	<b>2 CR</b>
Contact Hours: 3 + 0 Prerequisites: DN A401 with minimum grade of C. Continues the integration of Medical Nutrition Therapy into the treatment of pathological conditions. Applies the Nutrition Care Process in complex medical conditions classified as endocrine disorders including diabetes, hepatic disorders, renal disease, immune system disorders, stress, trauma, critical illness, neurological disorders and pediatric concerns.			Contact Hours: 0 + 16 Registration Restrictions: Bachelor's degree that satisfies didactic program in dietetics (DPD) requirements set by the American Dietetic Association. Current immunizations are required for specific internship sites. Corequisite: DN A692A and DN A695C. Grade Mode: Pass/No Pass. Practicum experience in community nutrition for dietetic interns, necessary to meet American Dietetic Association accreditation standards and to prepare future dietitians for professional practice as Registered Dietitians.		
<b>DN A415</b>	<b>Community Nutrition</b>	<b>3 CR</b>	<b>DN A695E</b>	<b>Advanced Practicum in Community Nutrition</b>	<b>2 CR</b>
Contact Hours: 3 + 0 Prerequisites: [DN A101 with minimum grade of C or DN A203 with minimum grade of C] and [DN A145 with minimum grade of C or DN A147 with minimum grade of C]. Registration Restrictions: Completion of all GER Tier 1 (Basic college-level skills) courses. Course Attributes: UAA GER Integrative Capstone. Applies nutrition principles to populations in various community environments and stages of life cycle, with consideration given to interrelated health, social, and economic concerns. Examines public policy related to nutrition concerns of target populations, and the marketing and management of community nutrition programs.			Contact Hours: 0 + 16 Registration Restrictions: Bachelor's degree that satisfies didactic program in dietetics (DPD) requirements set by the American Dietetic Association. Current immunizations are required for specific internship sites. Corequisite: DN A692B and DN A695F. Grade Mode: Pass/No Pass. Advanced practicum experience in community nutrition for dietetic interns, necessary to meet American Dietetic Association accreditation standards and to prepare future dietitians for professional practice as Registered Dietitians.		
<b>DN A450</b>	<b>Dietetic Management</b>	<b>3 CR</b>	<b>DN A695F</b>	<b>Practicum in Foodservice Administration</b>	<b>4 CR</b>
Contact Hours: 3 + 0 Prerequisites: DN A350 with minimum grade of C. Registration Restrictions: Passing score (greater than or equal to 70%) on ServSafe exam. Covers management and leadership in dietetic practice. Discusses current issues affecting practice, including human resources, outcome management, accreditation, quality assurance, and entrepreneurship.			Contact Hours: 0 + 20 Registration Restrictions: Bachelor's degree that satisfies didactic program in dietetics (DPD) requirements set by the American Dietetic Association. Current immunizations are required for specific internship sites. Corequisite: DN A692B and DN A695E. Grade Mode: Pass/No Pass. Practicum experience in foodservice administration for dietetic interns, necessary to meet American Dietetic Association accreditation standards and to prepare future dietitians for professional practice as Registered Dietitians.		
<b>DN A475</b>	<b>Advanced Nutrition</b>	<b>3 CR</b>	<b>DNCE - Dance</b>		
Contact Hours: 3 + 0 Prerequisites: BIOL A111 with minimum grade of C and BIOL A112 with minimum grade of C and BIOL A115 with minimum grade of C and CHEM A321 with minimum grade of C and CHEM A441 with minimum grade of C and DN A203 with minimum grade of C. Presents basic concepts of the mechanisms of actions, interactions, and the processes of cellular assimilation and utilization of nutrients in humans. Emphasis on the coordinated control of nutrient utilization among the major organs.			<i>Offered through the College of Arts and Sciences</i> <i>Fine Arts Building (ARTS), Room 302, 786-1792</i> <a href="http://theatre.uaa.alaska.edu">http://theatre.uaa.alaska.edu</a>		
<b>DN A490</b>	<b>Current Topics in Dietetics and Nutrition</b>	<b>1-6 CR</b>	<b>DNCE A061</b>	<b>Elementary Ballet</b>	<b>1 CR</b>
Contact Hours: 0-6 + 0-18 Examines current topics in dietetics and nutrition. Choice of topics resulting from special demands of the industry or special faculty expertise.			Contact Hours: 1 + 1 Special Fees. Special Note: May be repeated three times for credit. Introduction to classical ballet for the student with little or no background in dance. Simple exercises and combinations introduce fundamental ballet positions and terminology. Correct anatomical alignment and injury prevention stressed.		
<b>DN A692A</b>	<b>Seminar: Current Issues in Dietetics Clinical and Community Nutrition</b>	<b>2 CR</b>	<b>DNCE A071</b>	<b>Elementary Modern Dance</b>	<b>1 CR</b>
Contact Hours: 8 + 0 Registration Restrictions: Bachelor's degree that satisfies didactic program in dietetics (DPD) requirements set by the American Dietetic Association. Current immunizations are required for specific internship sites. Corequisite: DN A695C and DN A695D. Special Fees. Seminar in current dietetics and clinical and community nutrition issues/topics intended for dietetic interns. Provides theoretical and conceptual learning along with practicum coursework, necessary to meet American Dietetic Association accreditation standards and to prepare future dietitians for professional practice as Registered Dietitians.			Contact Hours: 1 + 1 Special Fees. Special Note: May be repeated three times for credit. Introduction to elementary modern techniques for the avocational student with little or no background in modern dance. Simple exercises and combinations introduce fundamental modern dance positions, movements, and terminology. Correct alignment stressed in basic exercises and elementary locomotor combinations.		
<b>DN A692B</b>	<b>Seminar: Current Issues in Dietetics Community Nutrition and Foodservice Administration</b>	<b>1 CR</b>	<b>DNCE A081</b>	<b>Elementary Jazz</b>	<b>1 CR</b>
Contact Hours: 4 + 0 Registration Restrictions: Bachelor's degree that satisfies didactic program in dietetics (DPD) requirements set by the American Dietetic Association. Current immunizations are required for specific internship sites. Corequisite: DN A695E and DN A695F. Special Fees. Seminar in current dietetics, community nutrition, foodservice administration issues/topics intended for dietetic interns. Provides theoretical and conceptual learning along with practicum coursework, necessary to meet American Dietetic Association accreditation standards and to prepare future dietitians for professional practice as Registered Dietitians.			Contact Hours: 1 + 1 Special Fees. Special Note: May be repeated three times for credit. Introductory course in the fundamentals of jazz for the student with little or no dance background. Exercises and movement combinations introduce principles of jazz rhythm and style. Correct anatomical alignment and injury prevention stressed.		
<b>DNCE A101</b>	<b>Fundamentals of Ballet I</b>	<b>2 CR</b>			
Contact Hours: 1 + 2 Special Fees. Special Note: May be repeated three times for credit. Beginning ballet technique introduced through barre and center floor work. Emphasis on correct anatomical alignment and injury prevention.					

## Course Descriptions

<p><b>DNCE A121</b>            <b>Fundamentals of Modern I</b>            <b>2 CR</b>            Contact Hours: 1 + 2            Special Fees.            Special Note: May be repeated three times for credit.            Beginning modern dance techniques. Introduces basic dance skills through warm-up exercises and movement combinations. Exploration of modern dance aesthetics and philosophy. Correct anatomical alignment and injury prevention stressed.</p>	<p><b>DNCE A185</b>            <b>Design for Dance</b>            <b>3 CR</b>            Contact Hours: 3 + 0            Special Fees.            Processes and practices necessary for the preparation of scenery, lighting, and related areas of design for the stage. Provides hands-on experience to learn operational equipment basics and appropriate terminology to enable a successful mastery of the basic practices and techniques required for effective dance production work.</p>
<p><b>DNCE A124</b>            <b>Dance for Musical Theatre I</b>            <b>2 CR</b>            Contact Hours: 1 + 2            Crosslisted with: THR A124.            Special Fees.            Special Note: May be repeated three times for credit.            Introduces the vocabulary, variety of movement styles and performance techniques inherent in American musical theatre, including the ability to vocalize correctly during movement. Covers a range of time periods from the 1920s to the present.</p>	<p><b>DNCE A205</b>            <b>Fundamentals of Ballet II</b>            <b>2 CR</b>            Contact Hours: 1 + 2            Prerequisites: DNCE 101 with minimum grade of C.            Special Fees.            Special Note: May be repeated three times for credit.            Technical, verbal, and theoretical knowledge of ballet enhanced by acquisition of new skills for control and movement. Concepts of dance aesthetics and style plus interrelationships between music and dance. Emphasis on correct anatomical alignment and science of movement.</p>
<p><b>DNCE A131</b>            <b>Fundamentals of Music-Based Jazz I</b>            <b>2 CR</b>            Contact Hours: 1 + 2            Special Fees.            Special Note: May be repeated three time for credit.            Basic jazz dance technique rooted in the complexity, variety, and spontaneity of jazz music. Includes the concepts of rhythmic manipulation and swing with an introduction to musical movement qualities, improvisation, and jazz history. Warm-up exercises and movement combinations develop jazz skills and promote strength and flexibility. Correct alignment and injury prevention stressed throughout class.</p>	<p><b>DNCE A223</b>            <b>Fundamentals of Modern II</b>            <b>2 CR</b>            Contact Hours: 1 + 2            Prerequisites: DNCE A121 with minimum grade of C.            Special Fees.            Special Note: May be repeated three times for credit.            Modern dance techniques and vocabulary expanded by additional dance skills. Introduction of long warm-ups and movement combinations to increase body strength and flexibility. Exploration of modern dance history, philosophy, and aesthetics. Qualities of dance movement and music/dance relationships explored. Correct alignment and injury prevention stressed.</p>
<p><b>DNCE A145</b>            <b>Dances of the West African Diaspora I</b>            <b>2 CR</b>            Contact Hours: 1 + 2            Special Fees.            Special Note: May be repeated three times for credit.            Beginning course in dances of the West African Diaspora including those of the Caribbean such as Haiti and Cuba. Movement fundamentals of these dance forms are developed through warm-up exercises and through execution of the dances themselves. Three to five dances will be learned each semester. History and cultural context of the dances will be stressed throughout the class.</p>	<p><b>DNCE A224</b>            <b>Dance for Musical Theatre II</b>            <b>2 CR</b>            Contact Hours: 1 + 2            Prerequisites: DNCE A124 with minimum grade of C or THR A124 with minimum grade of C.            Crosslisted with: THR A224.            Special Fees.            Special Note: May be repeated three times for credit.            Continuation of Dance for Musical Theatre I, building on the foundation of vocabulary, movement styles, vocalizing, and performance techniques. Techniques in improving audition skills and perfecting performance ability. Encompasses a range of time periods, from the 1920s to the present.</p>
<p><b>DNCE A146</b>            <b>Introduction to Alaska Native Dance</b>            <b>1-2 CR</b>            Contact Hours: 0.5+1 or 1+2            Crosslisted with: AKNS A146.            Special Fees.            Special Note: May be repeated for up to 8 credits.            Beginning course in Alaska Native dance techniques involving movement, sounds/vocal, music, and storytelling. Historical, cultural, and aesthetic context of dance stressed throughout class.</p>	<p><b>DNCE A234</b>            <b>Fundamentals of Music-Based Jazz II</b>            <b>2 CR</b>            Contact Hours: 1 + 2            Prerequisites: DNCE A131 with minimum grade of C.            Special Fees.            Special Note: May be repeated three times for credit.            Jazz dance technique rooted in the complexity, variety, and spontaneity of jazz music. Includes the concepts of rhythmic manipulation, syncopation, swing and musical movement qualities. Explores structured improvisation techniques and critical moments of jazz history. Warm-up exercises and movement combinations increase jazz skills and promote strength and flexibility. Correct alignment and injury prevention stressed throughout class.</p>
<p><b>DNCE A147</b>            <b>Popular American Social Dance</b>            <b>2 CR</b>            Contact Hours: 1 + 2            Special Fees.            Special Note: May be repeated three times for credit.            Theory and practice of partnership social dance in the contemporary United States. Designed for learners who wish to expand their skills in social partnership dance or for overall development of movement skills. Specific dances will be examined in their historical and cultural contexts in order to find a closer connection to their movement forms.</p>	<p><b>DNCE A245</b>            <b>Dances of the West African Diaspora II</b>            <b>2 CR</b>            Contact Hours: 1 + 2            Prerequisites: DNCE A145 with minimum grade of C.            Special Fees.            Special Note: May be repeated three times for credit.            Level II course in social and religious dances of the West African Diaspora. May include those from South America and the Caribbean. Skills learned in Dances of the West African Diaspora I will be extended, while more complex dances will be introduced. Historical, social, and cultural context of each dance will be emphasized. Correct alignment and injury prevention stressed.</p>
<p><b>DNCE A151</b>            <b>Fundamentals of Tap I</b>            <b>1 CR</b>            Contact Hours: 1 + 1            Special Fees.            Special Note: May be repeated three times for credit.            Beginning tap dance techniques. Introduces basic tap dance skills through warm-up exercises and movement combinations. Rhythmic improvisation explored. Correct anatomical alignment and injury prevention stressed.</p>	<p><b>DNCE A253</b>            <b>Beginning Tap II</b>            <b>1 CR</b>            Contact Hours: 0.5 + 1            Prerequisites: DNCE A151 with minimum grade of C.            Special Fees.            Special Note: May be repeated three times for credit.            This course increases the student's skill level in basic tap dance technique and augments tap vocabulary acquired in Beginning Tap Dance I. Students are introduced to more complex steps and rhythms. Historical and social importance of tap discussed.</p>
<p><b>DNCE A170</b>            <b>Dance Appreciation</b>            <b>3 CR</b>            Contact Hours: 3 + 0            Course Attributes: UAA GER Fine Arts Requirement.            Special Fees.            Develops an appreciation of dance for observers and participants through course readings, lectures, videos, live performances, writing, movement, and discussion sessions. Explores dance in social and cultural contexts, and as an aesthetic and kinesthetic experience. Dances across cultures examined along with the development of dance as an art form in Europe and America. A lecture course with four - six dance studio movement session per semester.</p>	



<b>DNCE A262</b>	<b>Theory and Improvisation</b>	<b>2 CR</b>	<b>DNCE A370</b>	<b>Interdisciplinary Dance Studies: Issues and Methods</b>	<b>3 CR</b>
<p>Contact Hours: 1 + 2 Prerequisites: DNCE A205 with minimum grade of C or DNCE A223 with minimum grade of C or DNCE A234 with minimum grade of C or THR A124 with minimum grade of C or THR A221 with minimum grade of C. Special Fees. Special Note: May be repeated 3 times for credit. Explores ensemble movement improvisation, providing opportunities for students to practice as soloists and to integrate vocal work with movement. Students practice improvisational skills they may be expected to use in rehearsal, as part of the composition/choreographic process, and/or in performance.</p>			<p>Contact Hours: 3 + 0 Prerequisites: DNCE A170 with minimum grade of C and [ENGL A211 with minimum grade of C or ENGL A212 with minimum grade of C or ENGL A213 with minimum grade of C or ENGL A214 with minimum grade of C]. Registration Restrictions: Completion of GER Tier 1 (basic college-level skills) courses and junior standing. Course Attributes: UAA GER Integrative Capstone. Special Fees. Explores how dance scholars use methods drawn from a variety of disciplines to consider dance as movement, culture, artifact, language, and art. Applies and integrates these methods in relation to video materials and live dance events. Case studies will vary according to student interest and opportunities for viewing dance locally.</p>		
<b>DNCE A290</b>	<b>Selected Topics in Dance</b>	<b>1-3 CR</b>	<b>DNCE A395</b>	<b>Advanced Practicum: Performance</b>	<b>1-3 CR</b>
<p>Contact Hours: 1-3 + 0 Registration Restrictions: Prerequisites will vary according to topic. Special Fees. Special Note: May be repeated three times for credit with change of topic. Additional fees may apply depending on topic. Introduction to current topics in dance performance and theory. Topics will depend on special demands of the dance season or faculty expertise.</p>			<p>Contact Hours: 0 + 3-9 Registration Restrictions: Junior or senior standing. Audition and faculty permission. Special Note: May be repeated for up to 12 total credits. Performance practicum for juniors and seniors. Advanced participation in dance production as a dancer, performance artist, or choreographer.</p>		
<b>DNCE A301</b>	<b>Intermediate Ballet I</b>	<b>2 CR</b>	<b>DNCE A465</b>	<b>Advanced Performance and Choreography Workshop</b>	<b>3 CR</b>
<p>Contact Hours: 1 + 2 Prerequisites: DNCE A205 with minimum grade of C. Special Fees. Special Note: May be repeated three times for credit. Elaboration of ballet technique through barre and center practice with an emphasis on body placement, flexibility, and strength. A serious ballet course requiring regular attendance.</p>			<p>Contact Hours: 3 + 0 Prerequisites: DNCE A302 with minimum grade of C or DNCE A322 with minimum grade of C or DNCE A332 with minimum grade of C. Registration Restrictions: Instructor permission by audition required. Special Fees. Special Note: May be repeated three times for credit. Designed for the advanced student with a focus on multiple skills to assist in the growth of the movement artist as performer and creator. Advanced exploration of the spatial and qualitative aspects of dance technique with the refinement of complex patterning skills and attention to details of dramatic or emotional content. Techniques of improvisation, abstraction, and choreography applied to movement studies as an ongoing class activity. Explorations into the theoretical foundations of designing and structuring the dance class along with the aesthetics and history of contemporary dance technique.</p>		
<b>DNCE A321</b>	<b>Intermediate Modern I</b>	<b>2 CR</b>	<b>DNCE A490</b>	<b>Selected Topics in Dance</b>	<b>1-3 CR</b>
<p>Contact Hours: 1 + 2 Prerequisites: DNCE A223 with minimum grade of C. Special Fees. Special Note: May be repeated three times for credit. Increases the student's skill level and movement vocabulary in intermediate Modern I technique. Movement theory, phrasing and dynamics emphasized along with modern dance aesthetics. Structured technical exercises increase the student's strength, flexibility, and quality of movement. Correct alignment and injury prevention stressed.</p>			<p>Contact Hours: 1-3 + 0 Registration Restrictions: Junior or senior standing. Special Fees. Special Note: May be repeated for credit with change of topic. Additional fees may apply depending on topic. Current topics in dance performance and theory resulting from special demands of the dance season or special faculty expertise.</p>		
<b>DNCE A322</b>	<b>Intermediate Modern II</b>	<b>2 CR</b>	<b>ECON - Economics</b>		
<p>Contact Hours: 1 + 2 Prerequisites: DNCE A321 with minimum grade of C. Registration Restrictions: Instructor permission required. Special Fees. Special Note: May be repeated three times for credit. Continuation and elaboration of Intermediate Modern I technique and theories. Course will emphasize the refinement of performance technique, movement dynamics, and improvisational skills while incorporating techniques that focus on correct alignment, centering, and proper articulation of the joints. Continued exploration of modern dance history, philosophy, and aesthetics. Correct alignment and injury prevention stressed.</p>			<p><i>Offered through the College of Business &amp; Public Policy Edward &amp; Cathryn Rasmuson Hall (RH), Room 203, 786-4100 <a href="http://www.cbpp.uaa.alaska.edu/economics.asp">www.cbpp.uaa.alaska.edu/economics.asp</a></i></p> <p>Students taking any ACCT, BA, CIS, ECON, LGOP, LOG, or PADM course will be charged a single lab fee of \$25 for the semester. Applies to Elmendorf Air Force Base or Fort Richardson classes only when specifically noted on UAOnline. Does not apply to Chugiak-Eagle River classes.</p>		
<b>DNCE A361</b>	<b>Approaches to Dance Composition</b>	<b>3 CR</b>	<b>ECON A123</b>	<b>Introduction to Behavioral Economics</b>	<b>3 CR</b>
<p>Contact Hours: 3 + 0 Prerequisites: [DNCE A205 with minimum grade of C or DNCE A223 with minimum grade of C or DNCE A234 with minimum grade of C] and DNCE A262 with minimum grade of C. Registration Restrictions: Instructor permission required. Special Fees. Special Note: May be repeated twice for credit. Introduction to the process of creating movement studies as a foundation for larger works of dance. Universal elements of composition and the creative process are explored from multiple perspectives. Final movement study project will be required.</p>			<p>Contact Hours: 3 + 0 Course Attributes: UAA GER Social Sciences Requirement. An introduction to economics that incorporates insights from psychology. The implications of research findings are developed and applied to topics that include personal finance, health, happiness, and the design of public policies.</p>		
<b>DNCE A365</b>	<b>Dance Repertory and Performance</b>	<b>3 CR</b>	<b>ECON A201</b>	<b>Principles of Macroeconomics</b>	<b>3 CR</b>
<p>Contact Hours: 1.5 + 3 Prerequisites: DNCE A205 with minimum grade of C or DNCE A223 with minimum grade of C or DNCE A224 with minimum grade of C or DNCE A234 with minimum grade of C or DNCE A245 with minimum grade of C. Registration Restrictions: Instructor permission by audition required. Special Fees. Special Note: May be repeated three times for credit. Enhancement of dance technique and application of performance skills through performance repertory. Class work focuses on learning and refining works of choreography for performance. Involves an extensive rehearsal and performance schedule outside of the regularly scheduled class times.</p>			<p>Contact Hours: 3 + 0 Prerequisites: MATH A105 or MATH A107 or MATH A172. Registration Restrictions: If prerequisite is not satisfied, suitable SAT score, ACT score, or UAA-approved Math Placement Test is required. Course Attributes: UAA GER Social Sciences Requirement. Introduction to economics including analysis and theory of national income, money and banking, public finance and taxation, economic growth, and international finance. Primary concentration on the capitalist system and the United States economy.</p>		

## Course Descriptions

<b>ECON A202</b>	<b>Principles of Microeconomics</b>	<b>3 CR</b>	<b>ECON A341</b>	<b>Labor Economics</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ECON A201. Course Attributes: UAA GER Social Sciences Requirement. Theory of prices and markets, industrial organization, public policy, income distribution, contemporary problems of labor and business, and international trade.			Contact Hours: 3 + 0 Prerequisites: ECON A201 and ECON A202. Analyzes labor market, employment and unemployment, wage differences, and structure and composition of the labor force. Examines occupational segregation, discrimination, economic aspects of unionism, labor legislation, and social insurance.		
<b>ECON A210</b>	<b>Environmental Economics and Policy</b>	<b>3 CR</b>	<b>ECON A350</b>	<b>Money and Banking</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: (MATH A105 with minimum grade of C) or completion of quantitative skills GER requirement. Course Attributes: UAA GER Social Sciences Requirement. Survey of environmental policy, emphasizing market-oriented approaches to problems. Present value, cost-benefit analysis, and nonmarket valuation tools are developed and applied to Alaska and global environmental and natural resource issues.			Contact Hours: 3 + 0 Prerequisites: ECON A201 with minimum grade of C and ECON A202 with minimum grade of C. Examines how financial markets and financial institutions affect the macroeconomic state of the economy, how money is created, the role of central banks in financial regulation, and the implementation of monetary policy.		
<b>ECON A290</b>	<b>Special Topics in Economics</b>	<b>3 CR</b>	<b>ECON A351</b>	<b>Public Finance</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Special Note: May be repeated with a change of subtitle/topic. Maximum of 9 elective credits may be used for the BA and BBA Economics degrees. Check class listing for specific titles being offered. Study of specific current issues, techniques, and trends in economics.			Contact Hours: 3 + 0 Prerequisites: ECON A201 with minimum grade of C and ECON A202 with minimum grade of C. Government taxation, borrowing, and spending; economic effects of taxation, and influence of fiscal policy on economic activity.		
<b>ECON A300</b>	<b>The Economy of Alaska</b>	<b>3 CR</b>	<b>ECON A360</b>	<b>Modern Economic History</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: CBPP BBA majors must be admitted to upper-division standing. Special Note: Recommended for students with junior or senior standing.			Contact Hours: 3 + 0 Prerequisites: HIST A102 and ECON A201. Crosslisted with: HIST A360. Examines the role of geography, institutions, technology, and trade in the evolution of the modern economy. Emphasizes the long-run economic performance of Europe and the US. Also covers historic differences between the West and other parts of the world.		
<b>ECON A312</b>	<b>Econometrics for Business and Economics</b>	<b>3 CR</b>	<b>ECON A363</b>	<b>International Economics</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: BA A273 with minimum grade of C and [BA A377 with minimum grade of C or ECON A321 with minimum grade of C] and [MATH A200 with minimum grade of C or MATH A272 with minimum grade of C]. Registration Restrictions: Familiarity with personal computers and basic software applications. Keyboarding of at least 30 wpm recommended. Basic concepts in regression analysis and econometric methods. Application of methods to naturally occurring and experimental data; emphasis on application through use of econometrics software and personal computers.			Contact Hours: 3 + 0 Prerequisites: ECON A201 with minimum grade of C and ECON A202 with minimum grade of C. Studies the pure theory of international trade, including theories of comparative advantage, international monetary theory, and trade policy. Examines international institutions and their role and importance in world trade. Examines the role of free trade agreements and common currency areas.		
<b>ECON A315</b>	<b>Urban and Regional Economics</b>	<b>3 CR</b>	<b>ECON A390</b>	<b>Special Topics in Economics</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ECON A201 and ECON A202. Economic issues examined at the community, regional, and state levels. Examines the location of economic activity, models of regional economic growth, the structure of regional economies, migration, housing and land use issues, and economic policies affecting neighborhoods, communities, cities, and states.			Contact Hours: 3 + 0 Prerequisites: ECON A201 with minimum grade of C and ECON A202 with minimum grade of C. Special Note: May be repeated with a change of subtitle/topic. Maximum of 9 elective credits may be used for the BA and BBA Economics degrees. Check class listing for specific titles being offered. Study of specific current issues, techniques, and trends in economics.		
<b>ECON A321</b>	<b>Intermediate Microeconomics</b>	<b>3 CR</b>	<b>ECON A429</b>	<b>Business Forecasting</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ECON A201 and ECON A202 and [MATH A200 or MATH A272]. Analysis of demand and supply under various market structures; theory of production and cost; factor pricing and theory of distribution; and survey of welfare economics.			Contact Hours: 3 + 0 Prerequisites: BA A273 with minimum grade of C and CIS A110 with minimum grade of C and [BA A377 with minimum grade of C or ECON A321 with minimum grade of C]. Applies methods of business forecasting and analyzes fluctuations in economic activity. Statistical forecasts are prepared and evaluated.		
<b>ECON A324</b>	<b>Intermediate Macroeconomics</b>	<b>3 CR</b>	<b>ECON A435</b>	<b>Natural Resource Economics</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ECON A201 and ECON A202. Concepts and measurement of national income; analysis of aggregate demand and supply and their relationship to prices, employment, and growth. Review and analyze recent U.S. economic policy and performance.			Contact Hours: 3 + 0 Prerequisites: ECON A321 with minimum grade of C. Economic analysis of natural resource use, conservation, and management. Examines minerals, energy, forests, fisheries, and ecosystem services. Uses Alaska examples.		
<b>ECON A325</b>	<b>History of Economic Thought</b>	<b>3 CR</b>	<b>ECON A454</b>	<b>Economics Internship</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ECON A201 and ECON A202. Economic thought from Aristotle to the present, mercantilism, classical and neoclassical theory, institutional economics, and socialism are examined.			Contact Hours: 0 + 9 College Restriction: Must be in UAA College of Business and Public Policy. Major Restriction: Must be Economics major. Class Standing Restriction: Must be Junior. Registration Restrictions: Junior standing as an economics major; and permission of ECON Faculty Internship Coordinator. Special Fees. Work experience in an approved position with supervision and training in applied economics or economic research.		
<b>ECON A333</b>	<b>Experimental Economics</b>	<b>3 CR</b>	<b>ECON A459</b>	<b>Industrial Organization and Public Policy</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ECON A201 with minimum grade of C and ECON A202 with minimum grade of C. Applies experimental methods to study behavior in economics. Topics include public good provision, common pool resources, bargaining, fairness and reciprocity, markets and auctions, mechanism design, and policy analysis.			Contact Hours: 3 + 0 Prerequisites: ECON A321 with minimum grade of C. Analyzes different market structures. Additional topics include anti-trust and other government regulation; public policy issues in regulated industries, such as transportation, communications, electricity, and gas; and the economic and legal issues and problems arising from noncompetitive market conditions.		
<b>ECON A337</b>	<b>Development Economics</b>	<b>3 CR</b>			
Contact Hours: 3 + 0 Prerequisites: ECON A201 and ECON A202. Economic approaches to the challenge of development. Physical and human capital, technology, institutions, geography, culture, and natural resources as sources of growth. Policies affecting trade, aid, health, and the environment. Alaska as a developing region.					

<b>ECON A492</b>	<b>Seminar in Economic Research</b>	<b>3 CR</b>
Contact Hours: 3 + 0		
Prerequisites: ECON A321 with minimum grade of C and ECON A324 with minimum grade of C and [ECON A412 with minimum grade of C or ECON A429 with minimum grade of C].		
Class Standing Restriction: Must be Senior.		
Registration Restrictions: Completion of GER Tier 1 (basic college-level skills) courses and senior standing.		
Course Attributes: UAA GER Integrative Capstone.		
Requires integration of principles, theories, and methods learned in courses taken throughout the economics major/program. Students analyze, synthesize, and critically evaluate and apply knowledge of economics in a research project. Formal written and oral presentations of the research are required.		
<b>ECON A602</b>	<b>Introduction to Economics for Managers</b>	<b>3 CR</b>
Contact Hours: 3 + 0		
Registration Restrictions: Graduate standing.		
Special Note: Foundation course for MBA and MPA programs. Does not satisfy the minimum 30 credit hour requirement for an MBA or MPA program.		
Introduction to economic theory and issues for private and public sector managers. National income and business cycle analysis, money and banking, and the role of government. Theory of prices and markets. International economics.		
<b>ECON A625</b>	<b>Economics and Public Policy</b>	<b>3 CR</b>
Contact Hours: 3 + 0		
Prerequisites: ECON A201 and ECON A202.		
Level Restriction: Must be Graduate - UAA level.		
Registration Restrictions: Bachelors degree required.		
Applies economic analysis to public policy issues and tools for public management. Uses economics to explain public problems and provide solutions.		
<b>ECON A640</b>	<b>Economics of Transportation</b>	<b>3 CR</b>
Contact Hours: 3 + 0		
Registration Restrictions: Faculty permission.		
Economic aspects of the transportation industry with special emphasis on problems of regulation and public policy.		

## ED - Education

*Offered through the College of Education*

*Professional Studies Building (PSB), Room 220, 786-4481*

*[www.uaa.alaska.edu/coe](http://www.uaa.alaska.edu/coe)*

<b>ED A180</b>	<b>Beginning Sign Language</b>	<b>1 CR</b>
Contact Hours: 1 + 0		
Introductory training in manual communication methods used in the United States. Students will learn how to carry on basic communication with deaf persons via manual mode. Credit will be awarded upon demonstration of mastery of the materials.		
<b>ED A181</b>	<b>Intermediate Sign Language</b>	<b>1 CR</b>
Contact Hours: 1 + 0		
Prerequisites: ED A180.		
Continued instruction in manual communication methods. Students will become fluent in the most commonly used methods of communicating with deaf persons. Credit will be awarded only upon demonstration of successful mastery of the competencies required in the course.		
<b>ED A200</b>	<b>Tutoring Lab</b>	<b>1-3 CR</b>
Contact Hours: 0 + 2-6		
Prerequisites: (ED A200A or concurrent enrollment).		
Offered only at Kenai Peninsula College.		
The goal of this course is to successfully tutor students. Introduction to tutoring lab serves as the practical experience for ED A200A, ED A200B, and ED A200C.		
<b>ED A200A</b>	<b>Beginning Tutor Training Seminar</b>	<b>1 CR</b>
Contact Hours: 1 + 0		
Registration Restrictions: Faculty permission.		
Offered only at Kenai Peninsula College.		
Students new to the tutor program develop skills for successfully helping students with their course work. Tutors learn and practice techniques for handling a variety of situations before tutoring begins. The framework for each semester tutor program is established during the course.		
<b>ED A200B</b>	<b>Advanced Tutor Training Seminar</b>	<b>1 CR</b>
Contact Hours: 1 + 0		
Prerequisites: ED A200A.		
Offered only at Kenai Peninsula College.		
Advanced tutors will hone their skills through seminars, workshops and projects. Tutors may qualify for assisting their peers in academic courses, adult basic education, and English-as-a-Second-Language, or in public schools.		

<b>ED A200C</b>	<b>Master Tutor Training Seminar</b>	<b>1 CR</b>
Contact Hours: 1 + 0		
Prerequisites: ED A200A and ED A200B.		
Registration Restrictions: 2 credits of ED A200 and faculty permission. Specific tutoring assignments may have other requirements.		
Offered only at Kenai Peninsula College.		

Master tutors will hone their skills through seminars, workshops, and projects. Tutors may qualify for assisting their peers in academic courses, adult basic education, English-as-a-Second-Language, or in the public schools.

<b>ED A216</b>	<b>Children's Literature</b>	<b>3 CR</b>
Contact Hours: 3 + 0		
Intended for teachers, parents, librarians, or anyone interested in reading many books for preschoolers through 6th grade. Much attention to selection and best use of children's literature.		

<b>ED A222</b>	<b>Bilingual Education and Paraeducators</b>	<b>1 CR</b>
Contact Hours: 1 + 0		
Registration Restrictions: Department approval.		
Focuses on the dynamics and challenges of educating diverse populations. Provides working paraeducators the opportunity to develop ideas, define concepts, and to practice skills related to bilingual classrooms.		

<b>ED A223</b>	<b>Paraeducators and Developing Readers</b>	<b>2 CR</b>
Contact Hours: 2 + 0		
Registration Restrictions: Department approval.		
A discussion of current issues and practices in teaching K-12 reading for paraeducators. Special emphasis on the role of the paraeducator in describing and reporting students' reading problems and assisting in individual and group instruction.		

## EDAE - Education - Adult Education

*Offered through the College of Education*

*Professional Studies Building (PSB), Room 218, 786-4450*

*<http://coe.uaa.alaska.edu/adulted>*

<b>EDAE A615</b>	<b>Introduction to Adult Education</b>	<b>3 CR</b>
Contact Hours: 3 + 0		
Registration Restrictions: Graduate standing.		
Exploration and broad overview of the field. Topical areas include people, literature, terms, issues, sociocultural context, and adult education as a field of practice. Includes skills foci on academic reading, writing, and student portfolio.		

<b>EDAE A639</b>	<b>Instructional Technology Product Evaluation</b>	<b>3 CR</b>
Contact Hours: 3 + 0		
Prerequisites: EDAE A638.		
Registration Restrictions: Graduate standing		
Provides the learner with the knowledge to effectively evaluate learning instruments through a variety of approaches. Evaluation of software and hardware instructional products is emphasized.		

<b>EDAE A645</b>	<b>The Teaching of Adults</b>	<b>3 CR</b>
Contact Hours: 3 + 0		
Registration Restrictions: Graduate Standing.		
Examines direct and indirect teaching methods. Activities assist learners to identify individual values and ethics. Involves critical thinking skills and ethical decision making. Explores current ethical issues applicable to adult education practices. Learners design, develop, and deliver several classes, workshops, and presentations.		

<b>EDAE A650</b>	<b>Principles of Human Resource Development</b>	<b>3 CR</b>
Contact Hours: 3 + 0		
Registration Restrictions: Graduate standing.		
Examines current principles and theories of human resource development with respect to Adult Education. Strategies and techniques for practical application of procedures and tools are presented. Applicable to adult educators working in a variety of human resource systems that include educational institutions, non-profits, business and industry, and voluntary organizations.		

<b>EDAE A655</b>	<b>The Adult Learner</b>	<b>3 CR</b>
Contact Hours: 3 + 0		
Registration Restrictions: Graduate Standing.		
Examines major principles, problems and information about adults and adult learning. Includes psychological, physical, intellectual and other factors affecting adults and their ability to learn; motivation, participation of adult learners, principles and theories of adult learning; and traditional, non-traditional, and self-directed learning.		

## Course Descriptions

<b>EDAE A656</b>	<b>Understanding and Facilitating Adult Learning</b>	<b>1 CR</b>
Contact Hours: 1 + 0 Registration Restrictions: Graduate standing Examines developmental concepts, theories, and approaches to facilitating learning in adulthood. Explores the creation of teacher professional development environments that incorporate best practices for adult learning.		
<b>EDAE A665</b>	<b>History and Philosophy of Adult Education</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Graduate Standing. Examines the historical foundations of adult education and explores the various philosophical approaches to adult education currently practiced in the United States. Compares and contrasts the theoretical and practical relationships of these philosophies.		
<b>EDAE A670</b>	<b>Current Topics in Adult Education</b>	<b>1-3 CR</b>
Contact Hours: 1-3 + 0 Registration Restrictions: Bachelor's degree from an accredited university. Special Note: May be repeated for credit with change of subtitle. Restricted enrollment may apply. See advisor for applicability to degree program. Specific current issues, techniques, and trends affecting or of interest to adult educators.		
<b>EDAE A675</b>	<b>Design of Programs for Adults</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Graduate standing. Examination of fundamental concepts of educational program planning for adults in informal, community, health care, higher education, and human resource settings.		
<b>EDAE A676</b>	<b>Curriculum and Instructional Design</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: EDAE A675. Registration Restrictions: Graduate standing. Examination of the curriculum development process and exploration of instructional design elements.		
<b>EDAE A691</b>	<b>Professional Seminar</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Bachelor's degree from an accredited university. Reviews research in adult education, current and past, with analysis of its directions, effect, methodology, quality, and prospects. Examines and compares current practices and trends in the field with core literature of adult education. Promotes examination of professional portfolios for adult educators.		
<b>EDAE A695</b>	<b>Practicum in Adult Education</b>	<b>1-3 CR</b>
Contact Hours: 0 + 3-9 Prerequisites: EDAE A615 and EDAE A655 and EDAE A665 and EDAE A675. Registration Restrictions: Instructor approval. Grade Mode: Pass/No Pass. Supervised field experience designed to facilitate exploration of the field and transfer of skills to an adult education practice setting.		
<b>EDAE A698</b>	<b>Inquiry Project</b>	<b>1-3 CR</b>
Contact Hours: 0 + 3-9 Prerequisites: (EDAE A685 or concurrent enrollment) or (EDFN A627 or concurrent enrollment). Registration Restrictions: Departmental approval. Grade Mode: Pass/No Pass. An inquiry project in an educational, community, or administrative setting related to the student's program concentration. The project, the culminating academic experience leading to the graduate degree, is original, creative work integrating theory and evidence-based practice.		
<b>EDAE A699</b>	<b>Thesis</b>	<b>1-3 CR</b>
Contact Hours: 0 + 3-9 Prerequisites: (EDAE A685 or concurrent enrollment) or (EDFN A627 or concurrent enrollment). Registration Restrictions: Departmental approval. Grade Mode: Pass/No Pass. Completion of a master's thesis. The thesis is based on original investigation and demonstrates scholarship, knowledge of the relevant literature and selection of appropriate methods of research.		

## EDCN - Education - Counselor Education

*Offered through the College of Education  
Professional Studies Building (PSB), 786-4401  
[www.uaa.alaska.edu/coe](http://www.uaa.alaska.edu/coe)*

<b>EDCN A610</b>	<b>Professional and Ethical Orientation to Counseling</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Graduate standing. Introduces the counseling profession. Includes fundamental ethical and legal issues; generic helping processes, histories, settings, roles, organizations; and credentials associated with various specialties in the field.		
<b>EDCN A613</b>	<b>Human Development for Helping Professionals</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Graduate standing. Examines the implications of development on counseling services. Explores the major theories of human growth from birth to death in areas such as personality, cognitive, learning, social, physical, cultural, and emotional development.		
<b>EDCN A614</b>	<b>Counseling Diverse Populations</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Graduate standing. Examines issues, concepts, and meanings of culture that impact counseling work with distinctive populations, with a focus on Alaska's context. Addresses relationships and influences among culture, education, society, and counseling.		
<b>EDCN A616</b>	<b>Counseling Theories</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: EDCN A610. Registration Restrictions: Graduate standing. Examines counseling theories from the psychodynamic, humanistic, behavioral, cognitive, and systems perspectives.		
<b>EDCN A620</b>	<b>Assessment in Counseling</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: EDRS A660. Registration Restrictions: Graduate standing. Examines the purpose, philosophy, and role of assessment in counseling. Explores topics such as psychometric concepts, diagnostic interviewing, standardized tests, and non-testing assessment methods used in school and agency settings.		
<b>EDCN A623</b>	<b>Counseling Skills and Techniques</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: EDCN A610 and EDCN A616. Registration Restrictions: Graduate standing. Emphasizes developing proficiency in basic and advanced counseling skills and techniques associated with specific theories.		
<b>EDCN A624</b>	<b>Group Counseling</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: EDCN A610 and EDCN A616. Registration Restrictions: Graduate standing. Examines group counseling including styles of leadership, stages of process, theoretical concepts, and common topics.		
<b>EDCN A625</b>	<b>Administration and Practices in School Counseling</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: EDCN A610. Registration Restrictions: Graduate standing. Examines technological and functional skills necessary for the development and delivery of K-12 school counseling programs. Emphasizes state and national standards.		
<b>EDCN A627</b>	<b>Counseling in Community Agencies</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: EDCN A610. Registration Restrictions: Graduate standing. Examines community agency counseling. Includes topics such as ethical and legal issues, crisis counseling, domestic violence, and substance abuse. Emphasizes the technological and functional skills necessary for effective work with multiple client populations.		

<b>EDCN A632</b>	<b>Lifespan Career Development</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Graduate standing. Special Fees. Examines the major theories of career development for clients. Explores labor market information, career development competencies, diversity, career information resources, assessment techniques, and delivery modes including educational programming.		
<b>EDCN A633</b>	<b>Counseling Children and Adolescents</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Graduate standing. Examines counseling work with children and adolescents. Includes topics such as ethical and legal issues, theories, techniques, and high risk issues.		
<b>EDCN A634</b>	<b>Counseling Practicum</b>	<b>3 CR</b>
Contact Hours: 1 + 5 Prerequisites: EDCN A610 and EDCN A613 and EDCN A614 and EDCN A616 and EDCN A620 and EDCN A623 and EDCN A624 and EDCN A632. Registration Restrictions: Departmental approval required; Admission to practicum. Grade Mode: Pass/No Pass. Special Fees. Special Note: Students must apply for placement in advance. See advisor for deadlines and procedures. Provides students with an opportunity to bridge academic preparation with supervised practice in an approved setting. Involves seminar classes, direct and indirect counseling activities, and preparing for internship.		
<b>EDCN A690</b>	<b>Current Topics in Counseling</b>	<b>1-3 CR</b>
Contact Hours: 1-3 + 0 Registration Restrictions: Graduate standing. Special Note: May be repeated for credit with change of subtitle. A maximum of 6 credits may be applied to the degree program. Restricted enrollment may apply. See advisor for applicability to degree program. Explores current issues, techniques, and trends of interest to counselors.		
<b>EDCN A695A</b>	<b>Counseling Internship: Advanced</b>	<b>1-6 CR</b>
Contact Hours: 0 + 4-27 Prerequisites: EDCN A695C or EDCN A695E or EDCN A695S. Registration Restrictions: Department approval required; Admission to internship. Grade Mode: Pass/No Pass. Special Fees. Special Note: Students present and defend a portfolio that documents attainment of advanced counselor competencies. Course may not be used to fulfill elective requirements. Students must apply for placement in advance. See advisor for deadlines and procedures. Provides an advanced supervised counseling experience in an approved school or community agency setting.		
<b>EDCN A695C</b>	<b>Counseling Internship: Community Agency</b>	<b>3-6 CR</b>
Contact Hours: 1 + 15-30 Prerequisites: EDCN A627 and EDCN A634 and EDCN A690 and EDSE A632. Registration Restrictions: Department approval required; Admission to internship. Grade Mode: Pass/No Pass. Special Fees. Special Note: Students attend seminar, and present and defend a portfolio that documents attainment of counselor competencies. Course may not be used to fulfill elective requirements. Students must apply for placement in advance. See advisor for deadlines and procedures. Provides supervised counseling experience in an approved community agency setting.		
<b>EDCN A695E</b>	<b>Counseling Internship: Elementary School</b>	<b>3-6 CR</b>
Contact Hours: 1 + 15-30 Prerequisites: EDCN A625 and EDCN A633 and EDCN A634 and EDSE A632. Registration Restrictions: Department approval required; Admission to internship. Grade Mode: Pass/No Pass. Special Fees. Special Note: Students attend seminar, and present and defend a portfolio that documents attainment of counselor competencies. Course may not be used to fulfill elective requirements. Students must apply for placement in advance. See advisor for deadlines and procedures. Provides supervised counseling experience in an approved elementary school setting.		

<b>EDCN A695S</b>	<b>Counseling Internship: Secondary School</b>	<b>3-6 CR</b>
Contact Hours: 1 + 15-30 Prerequisites: EDCN A625 and EDCN A633 and EDCN A634 and EDSE A632. Registration Restrictions: Department approval required; Admission to internship. Grade Mode: Pass/No Pass. Special Fees. Special Note: Students attend seminar, and present and defend a portfolio that documents attainment of counselor competencies. Course may not be used to fulfill elective requirements. Students must apply for placement in advance. See advisor for deadlines and procedures. Provides supervised counseling experience in an approved secondary school setting.		

## EDD - Engineering Design and Drafting

*Offered through Kenai Peninsula College*  
34820 College Road, Soldotna, Alaska 99669  
(907) 262-0300  
[www.kpc.alaska.edu](http://www.kpc.alaska.edu)

<b>EDD A288</b>	<b>Computer Aided Drafting</b>	<b>4 CR</b>
Contact Hours: 3 + 2 Registration Restrictions: Completion of a high school or college drafting course. Offered only at Kenai Peninsula College. Introduction to computer aided drafting, instruction, and hands-on application using AutoCAD menu driven systems for data manipulation. Drawing production and drawing plotting.		

## EDEC - Education - Early Childhood

*Offered through the College of Education*  
Professional Studies Building (PSB), Room 220, 786-4481  
[www.uaa.alaska.edu/coe](http://www.uaa.alaska.edu/coe)

<b>EDEC A100</b>	<b>Fundamentals of Early Childhood Practice</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Addresses essential practical elements and commonly accepted standards of safe, healthy, competent care for young children.		
<b>EDEC A105</b>	<b>Introduction to the Field of Early Childhood</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Course Attributes: UAA GER Social Sciences Requirement. Special Note: This course requires a field experience and background check clearance. Survey of historical, social, and philosophical foundations of the field of early childhood. Core topics include ethics, developmentally appropriate practices, observation and documentation, survey of types of early childhood settings, and professionalism in the field of early childhood.		
<b>EDEC A106</b>	<b>Creativity and the Arts in Early Childhood</b>	<b>3 CR</b>
Contact Hours: 2 + 2 Explores creativity and importance of the arts in early childhood education.		
<b>EDEC A201</b>	<b>Early Childhood Practitioner Roles and Responsibilities</b>	<b>2 CR</b>
Contact Hours: 2 + 0 Focuses on the diverse roles of the early childhood practitioner, with an emphasis on self-analysis, ethical conduct, reflection and ongoing professional growth.		
<b>EDEC A206</b>	<b>Integrated Curriculum for Young Children</b>	<b>3 CR</b>
Contact Hours: 2 + 2 Prerequisites: EDEC A105. Examines early childhood curriculum models to organize, integrate, and implement with young children. Explores interest-based, developmentally appropriate, and standards-based curriculum ideas.		
<b>EDEC A210</b>	<b>Guiding Young Children</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: EDEC A105. Examination of the learning principles relevant to guidance of young children. The course introduces the social, emotional, and intellectual development of young children and the implications for effective child guidance and motivation in the classroom.		

## Course Descriptions

### EDEC A241 Infant and Toddler Development 3 CR

Contact Hours: 3 + 0

Prerequisites: EDEC A105.

Examines the development of infants and toddlers, infant/toddler care programs, the roles of caregivers and their relationships with families. This course emphasizes cognitive, language, emotional, and motor development, and the importance of relationships in the care and education of infants and toddlers.

### EDEC A242 Family and Community Partnerships 3 CR

Contact Hours: 3 + 0

Prerequisites: EDEC A105 or EDFN A101 or EDSE A212 or PSY A245.

Examines the importance and complexity of children's families and communities. The course explores programs that support family-centered principles underlying program planning, implementation, and relationship building.

### EDEC A292 Early Childhood Practicum Seminar 1 CR

Contact Hours: 1 + 0

Registration Restrictions: Department approval

Corequisite: EDEC A295.

This seminar accompanies EDEC A295. Provides opportunity for exchange of ideas and experiences, evaluation and reflection concerning developmentally appropriate practice.

### EDEC A295 Early Childhood Practicum 3 CR

Contact Hours: 0 + 10

Prerequisites: EDEC A105 and EDEC A210 and EDEC A241 and EDEC A242.

Registration Restrictions: Department approval

Corequisite: EDEC A292.

Grade Mode: Pass/No Pass.

Special Fees.

Supervised field experience in early childhood classroom. Students develop, implement and evaluate elements of a comprehensive, developmentally appropriate curriculum and learning environment.

### EDEC A295B Practicum II 3 CR

Contact Hours: 1 + 2

Prerequisites: EDEC A295A.

Registration Restrictions: Faculty permission required. Must have faculty permission to take concurrently with EDEC A295A.

Special Fees.

Supervised experience in an instructor approved early childhood setting. Emphasis is on an increasing level of responsibility for planning/supervising all program areas. Experience includes an initial assessment in all areas of professional competencies. An individual plan for the semester will be developed.

### EDEC A303 Young Children in Inclusive Settings 3 CR

Contact Hours: 3 + 0

Prerequisites: EDEC A301.

Registration Restrictions: Departmental approval required: admission to College of Education, pre-major status or admission to Associate of Applied Sciences in Early Childhood.

Special Note: Field experience is required.

Examines the principles, issues, concepts, and teaching practices to support young children with disabilities in community child care settings and primary classrooms.

### EDEC A304 Environment, Spaces, and Relationships 3 CR

Contact Hours: 3 + 0

Prerequisites: EDEC A242 and EDEC A303.

Registration Restrictions: Departmental approval required: admission to College of Education, full-major status.

Examines the design of the environment. This course will cover the principles that transform space into engaging places for young children. The design, organization, use of materials, and relationships to curriculum will be covered.

### EDEC A306 Assessment of Young Children 3 CR

Contact Hours: 3 + 0

Prerequisites: EDEC A304.

Registration Restrictions: Departmental approval required; admission to College of Education, full-major status.

Special Fees.

Examines best practices, tools and approaches for assessing children from infancy through 8 years. Focuses on the understanding of the assessment process and the development of assessment skills. Addresses program planning and monitoring progress with special attention to diversity and to children with disabilities.

### EDEC A403 Mathematics and Science in Early Childhood 3 CR

Contact Hours: 3 + 0

Prerequisites: EDEC A306.

Registration Restrictions: Department approval required; Concurrent enrollment in internship required.

Special Fees.

Examines the principles, developmental concepts, and curriculum designed to promote science and mathematics concepts. Analyzes how young children develop mathematical and scientific thinking. Methods of teaching mathematics and science to young children are covered.

### EDEC A404 Literacy for Young Children 3 CR

Contact Hours: 3 + 0

Prerequisites: EDEC A306.

Registration Restrictions: Department approval required; Concurrent enrollment in internship required.

Examines the understanding and importance of language and literacy. The course will cover oral and written discourse as they relate to the development of methods, materials, and philosophy of reading curricula.

### EDEC A407 Observation and Documentation in Early Childhood 4 CR

Contact Hours: 3 + 2

Prerequisites: EDSE A212 or PSY A245.

Registration Restrictions: Completion of GER Tier 1 (basic college-level skills) courses.

May be stacked with: EDEC A607.

Special Note: Requires a 30-hour practicum.

Examines the process of observation and documentation as a means to understand and make visible children's learning. Course covers the observation and documentation process as a cycle of inquiry as well as formal assessment systems.

### EDEC A408 Children's Literature: Early Childhood Years 3 CR

Contact Hours: 3 + 0

Prerequisites: EDSE A212 or PSY A245.

May be stacked with: EDEC A608.

Explores variety of children's literature with emphasis on selecting, interpreting, and using quality literature with young children.

### EDEC A492 Early Childhood Seminar 1 CR

Contact Hours: 1 + 0

Registration Restrictions: Departmental approval; Admission to internship.

Corequisite: EDEC A495.

Seminar enhances the internship teaching experience by creating situations in which the intern will integrate theoretical knowledge from previous education courses with the classroom experiences.

### EDEC A495 Early Childhood Internship 3-9 CR

Contact Hours: 0 + 12-30

Registration Restrictions: Departmental approval; admission to internship.

Corequisite: EDEC A492.

Grade Mode: Pass/No Pass.

Special Fees.

Special Note: Completion of 12 credits required for degree and certification.

Supervised internship in early childhood classroom. Allows for application of theoretical concepts and principles in the early childhood classroom environment. Emphasizes curriculum instruction, planning, assessment, reflection, classroom management, and professionalism skills for the field.

### EDEC A600 Contemporary Issues and Approaches in Early Childhood 3 CR

Contact Hours: 3 + 0

Level Restriction: Must be Graduate - UAA level.

Registration Restrictions: Graduate standing

Analysis of current principles, practices and research in early childhood education. Assesses the broad scope of early childhood education including issues related to child development, family and community partnerships, responsive teaching practices, behavior guidance, and curriculum development.

### EDEC A604 Responsive Practices in Early Childhood 3 CR

Contact Hours: 3 + 0

Level Restriction: Must be Graduate - UAA level.

Registration Restrictions: Graduate Standing

Explores the implications of current neuroscience research in designing early childhood learning environments and curriculum. Critically examines theories on how children learn, the interaction of nature and nurture, processes of self-regulation and attachment, and the role of caregivers/teachers in the learning environment. Students focus on the application of this knowledge in reflective practice.

**EDEC A605 Early Childhood Education Principles and Practices 3 CR**

Contact Hours: 3 + 0

Registration Restrictions: Admission to the Master Teacher Program Specialty Option in Early Childhood.

Survey of current principles, practices, and research in early childhood education. Will cover an analysis of early childhood education theory and beliefs as it relates to teaching and curriculum decisions. Students will study their understanding of "Developmentally Appropriate Practices" in the classroom setting. Course assignments require students to analyze their teaching values, principles, and theory as embedded in their daily practices. Issues related to home, school, and community as it relates to the child are covered.

**EDEC A607 Observation and Documentation: Inquiry in Action 4 CR**

Contact Hours: 3 + 2

Registration Restrictions: Graduate standing.

May be stacked with: EDEC A407.

Special Note: Requires a 30-hour practicum.

Examines the process of observation and documentation as a means to understand and make visible children's learning. Course covers the observation and documentation process as a cycle of inquiry as well as formal and informal assessment systems. Students apply knowledge of observation and documentation to produce a professional artifact that contributes to the field.

**EDEC A608 Analysis of Children's Literature: Early Childhood Years 3 CR**

Contact Hours: 3 + 0

Registration Restrictions: Graduate standing.

May be stacked with: EDEC A408.

Intensive study of various genres of children's literature. Students will analyze and critique major historical and contemporary works of children's literature for use in classrooms.

**EDEC A650 Leadership and Advocacy in Early Childhood 3 CR**

Contact Hours: 3 + 0

Level Restriction: Must be Graduate - UAA level.

Registration Restrictions: Graduate Standing

Analysis of critical issues in early education. Discussion will center around public policy, research, professional development, mentorship, leadership, and advocacy in the field.

**EDEL - Education - Elementary Education***Offered through the College of Education**Professional Studies Building (PSB), Room 224, 786-4481**www.uaa.alaska.edu/coe***EDEL A205 Becoming an Elementary Teacher 2 CR**

Contact Hours: 1.5 + 2

Prerequisites: [ENGL A111 with minimum grade of C or ENGL A211 with minimum grade of C or ENGL A212 with minimum grade of C or ENGL A213 with minimum grade of C or ENGL A214 with minimum grade of C or ENGL A311 with minimum grade of C or ENGL A312 with minimum grade of C or ENGL A414 with minimum grade of C].

Special Fees.

Special Note: Requires a 30-hour field assignment that must be arranged by the College of Education. Partners may limit registration.

Introduction to field of elementary education and the process of becoming an elementary teacher. Overview of core topics including the history of elementary education, teaching and learning, professionalism, observation strategies, and communicating with children.

**EDEL A325 Teaching Literacy in Elementary Schools 6 CR**

Contact Hours: 6 + 0

Prerequisites: EDFN A301.

College Restriction: Must be in UAA College of Education.

Registration Restrictions: Admission to Department of Teaching and Learning.

Corequisite: EDEL A327, EDEL A392 and EDEL A395.

Special Fees.

Survey of current issues and trends in teaching literacy in grades K-6. Focuses on methods, materials and practices that develop children's proficiency in reading, writing and oral language.

**EDEL A327 Teaching Social Studies in Elementary Schools 2 CR**

Contact Hours: 2 + 0

College Restriction: Must be in UAA College of Education.

Registration Restrictions: Admission to Department of Teaching and Learning and enrolled in EDEL A395 or EDEC A495.

Special Fees.

Methodology and materials used in elementary social studies classrooms.

Review of current research regarding P-6 student learning and conceptual development in social studies and corresponding pedagogies. Examines content selection, assessment, and curriculum design within a culturally responsive framework.

**EDEL A392 Elementary Education Seminar I: Culturally Responsive Teaching 2 CR**

Contact Hours: 2 + 0

College Restriction: Must be in UAA College of Education.

Registration Restrictions: Admission to Department of Teaching and Learning.

Corequisite: EDEL A325, EDEL A327 and EDEL A395.

Integrates theoretical knowledge of culturally responsive teaching with elementary classroom experiences. Emphasizes practices in teaching Alaska Natives, English language learners, and other students of diversity in Alaska's elementary classrooms.

**EDEL A395 Elementary Education Practicum I: Diversity, Literacy, Social Studies 2 CR**

Contact Hours: 0 + 6

College Restriction: Must be in UAA College of Education.

Registration Restrictions: Admission to Department of Teaching and Learning.

Corequisite: EDEL A325, EDEL A327 and EDEL A392.

Grade Mode: Pass/No Pass.

Special Fees.

Special Note: Placement must be arranged and supervised by the College of Education. Partners may limit registration.

Supervised practicum in a K-6 education facility with children from diverse sociocultural backgrounds. Supports development of culturally responsive teaching practices through observing classrooms, interacting with elementary students and educational professionals, and teaching literacy and social studies curriculum.

**EDEL A425 Teaching Reading in Elementary Schools 4 CR**

Contact Hours: 4 + 0

Prerequisites: EDFN A300 and EDFN A301 and EDFN A303 and EDSE A482.

Registration Restrictions: Departmental approval required; Admission to Internship.

Special Fees.

Survey of current issues and practices in teaching K-6 reading. Focuses on the teaching of developmental and content reading, and provides informal assessment techniques and materials for reading. Concurrent enrollment in internship required.

**EDEL A426 Teaching Mathematics in Elementary Schools 3 CR**

Contact Hours: 3 + 0

Prerequisites: EDEL A395.

College Restriction: Must be in UAA College of Education.

Registration Restrictions: Admission to Department of Teaching and Learning.

Corequisite: EDEL A428, EDEL A492A and EDEL A495A.

Special Fees.

Methodology and materials used in the elementary mathematics classroom.

Focuses on the mathematics topics typically taught in elementary schools and research-based methods for teaching children.

**EDEL A428 Teaching Science in Elementary Schools 2 CR**

Contact Hours: 2 + 0

Prerequisites: EDEL A395.

College Restriction: Must be in UAA College of Education.

Registration Restrictions: Admission to Department of Teaching and Learning.

Corequisite: EDEL A426, EDEL A492A and EDEL A495A.

Special Fees.

An inquiry-based approach to teaching science. Explores standards-based teaching and learning in K-6 classrooms.

**EDEL A429 Teaching Health Education in Elementary Schools 2 CR**

Contact Hours: 2 + 0

Prerequisites: EDFN A300 and EDFN A303 and EDSE A482.

Registration Restrictions: Departmental approval required; Admission to Internship.

Special Fees.

Methodology and materials used in the elementary health classroom.

Students will be exposed to the current research, issues, curriculum, and standards. Concurrent enrollment in internship required.

## Course Descriptions

### EDEL A430 Teaching Language Arts in Elementary Schools 3 CR

Contact Hours: 3 + 0

Prerequisites: EDFN A300 and EDFN A301 and EDFN A303 and EDSE A482.  
Registration Restrictions: Departmental approval required; Admission to Internship.  
Special Fees.

Students focus on theory and process of language arts: reading, writing, speaking, listening, viewing, and visually representing. Reflects a constructivist approach to teaching and learning and research-based practice. Concurrent enrollment in internship required.

### EDEL A431 Creative Expression: Music, Art, and Drama for Elementary Teachers 3 CR

Contact Hours: 1 + 4

Prerequisites: EDFN A300 and EDFN A301 and EDFN A303 and EDSE A482.  
Registration Restrictions: Departmental approval required; Admission to Internship.  
Special Fees.

Principles, methods, and materials of teaching music, art, and drama at the elementary school level. A wide variety of creative activities that are basic to elementary curricula are explored. Includes the use of music, art, and drama in standards-based curriculum planning and assessment for the diverse student population in elementary classrooms. Concurrent enrollment in internship required.

### EDEL A432 Physical Education for Elementary Classroom Teachers 1 CR

Contact Hours: 1 + 0

Prerequisites: EDFN A300 and EDFN A303 and EDSE A482.  
Registration Restrictions: Departmental approval required; Admission to Internship.  
Special Fees.

Examines the methodology and materials for implementing physical education in the elementary classroom. Focuses on movement education, integration, and developmentally appropriate activities. Concurrent enrollment in internship required.

### EDEL A492A Elementary Education Seminar II: Learning Environment 2 CR

Contact Hours: 2 + 0

Prerequisites: EDEL A395.  
College Restriction: Must be in UAA College of Education.  
Registration Restrictions: Admission to Department of Teaching and Learning.  
Corequisite: EDEL A426, EDEL A428 and EDEL A495A.  
Special Note: This course operates in accordance with the K-12 school year calendar, not the University academic year calendar.

Integrates theoretical knowledge of learning environments and classroom management with elementary classroom experiences.

### EDEL A492B Elementary Education Seminar III: Teaching Capstone 3 CR

Contact Hours: 3 + 0

College Restriction: Must be in UAA College of Education.  
Registration Restrictions: Admission to internship.  
Corequisite: EDEL A495B.

Special Note: This course operates in accordance with the K-12 school year calendar, not the University academic year calendar.

Integrates theoretical knowledge from previous education courses with the internship experience.

### EDEL A495A Elementary Education Practicum II: Learning Environment, Mathematics, Science 3 CR

Contact Hours: 0 + 9

Prerequisites: EDEL A395.  
Registration Restrictions: Admission to Department of Teaching and Learning.  
Corequisite: EDEL A426, EDEL A428 and EDEL A492A.  
Grade Mode: Pass/No Pass.  
Special Fees.

Special Note: This course operates in accordance with the K-12 school year calendar, not the University academic year calendar. Placement must be arranged and supervised by the College of Education. Partners may limit registration.

Supervised practicum in a K-6 educational facility. Supports development of proficiencies in creating an inclusive, engaging learning environment and teaching mathematics and science.

### EDEL A495B Elementary Education Internship 6-9 CR

Contact Hours: 0 + 18-27

College Restriction: Must be in UAA College of Education.  
Registration Restrictions: Admission to internship.  
Corequisite: EDEL A492B.  
Grade Mode: Pass/No Pass.  
Special Fees.

Special Note: This course operates in accordance with the K-12 school year calendar, not the University academic year calendar. Placement must be arranged and supervised by the College of Education. Partners may limit registration.

Supervised internship in a K-6 educational facility. Internship extends teaching proficiency developed in Practicum I and II. Emphasizes application of Alaska Beginning Teaching Standards in professional practice.

## EDET - Education - Educational Technology

*Offered through the College of Education*

*Professional Studies Building (PSB), Room 220, 786-4481*

[www.uaa.alaska.edu/coe](http://www.uaa.alaska.edu/coe)

### EDET A626 Technology in Teaching and Learning 3 CR

Contact Hours: 3 + 0

Registration Restrictions: Graduate standing in the College of Education, and prior experience using a PC.  
Special Fees.

The role of technology in restructuring learning environments. Explains how teaching and learning environments can be enhanced through different approaches to using technology. A broad range of technologies used in education will be explored, centering around microcomputers and optical hardware. Activities include hands-on experiences with applications software and hypermedia.

### EDET A637 Design of e-Learning 3 CR

Contact Hours: 3 + 0

Level Restriction: Must be Graduate - UAA level.

Registration Restrictions: Graduate standing.

Develops effective instructional methods for learners in web-based learning environments.

### EDET A638 Facilitation of Learning with Technology 3 CR

Contact Hours: 3 + 0

Level Restriction: Must be Graduate - UAA level.

Registration Restrictions: Graduate standing.

Using technology to facilitate teaching and learning in educational environments. Includes theory as well as hands-on production of artifacts using technology.

### EDET A640 e-Learning Project Development 3 CR

Contact Hours: 3 + 0

Prerequisites: CIS A375 with minimum grade of C and EDET A637 with minimum grade of C and EDET A638 with minimum grade of C.

Registration Restrictions: Graduate standing.

Applying curriculum, instructional design and development knowledge with information and communication technologies in the construction of an e-learning project in a virtual and/or hybrid environment. This is a capstone course for the e-Learning Graduate Certificate.

## EDFN - Education - Foundations

*Offered through the College of Education*

*Professional Studies Building (PSB), Room 220, 786-4481*

[www.uaa.alaska.edu/coe](http://www.uaa.alaska.edu/coe)

### EDFN A101 Introduction to Education 3 CR

Contact Hours: 3 + 0

Introductory course for students exploring education as a possible career choice. Covers the history of American education, an examination of contemporary issues in education, and basic classroom observational techniques. Students self-assess personal profile against characteristics of effective teachers. Course includes field experience.

### EDFN A206 Introduction to Assessment in Education 1 CR

Contact Hours: 1 + 0

Prerequisites: [(EDEC A105 or concurrent enrollment) or (EDEL A205 or concurrent enrollment) or (EDFN A101 or concurrent enrollment)].  
Special Fees.

Introduction to assessment and the rationale for using assessments to guide instruction. Overview of purposes and types of assessments including data interpretation and reporting strategies.



<b>EDFN A300</b>	<b>Philosophical and Social Context of American Education</b>	<b>3 CR</b>	<b>EDFN A470</b>	<b>Electronic Portfolio Development</b>	<b>1-3 CR</b>
<p>Contact Hours: 3 + 0 Prerequisites: (EDSE A212 or concurrent enrollment) or (PSY A245 or concurrent enrollment). Registration Restrictions: Completion of GER Tier 1 (basic college-level skills) courses and junior standing. Departmental approval. Course Attributes: UAA GER Integrative Capstone. Special Fees. Explores significant educational movements, theories, and research related to educational philosophy, sociology, and history to develop a framework for professional educational practice. Course emphasizes the importance of developing a coherent philosophy to guide teaching practice in a culturally diverse and inclusive classroom.</p>			<p>Contact Hours: 1-3 + 0-9 Registration Restrictions: Intermediate computer skills required. This is not a course for beginning computer users. A "readiness survey" will be available to help students assess whether they have the minimum computer skills. Grade Mode: Pass/No Pass. Special Fees. Developing and using an electronic portfolio. For first credit, students create an electronic portfolio, selecting from a variety of strategies for development, organization, storage, and presentation. For second credit, students learn to add digital audio and video clips to the portfolio. For third credit, students will read the literature and become conversant with issues and research on electronic portfolio development for a variety of ages and situations, including useful criteria for evaluation portfolios based on national or local standards.</p>		
<b>EDFN A301</b>	<b>Foundations of Literacy and Language Development</b>	<b>3 CR</b>	<b>EDFN A478</b>	<b>Issues in Alaska Native Education, K-12</b>	<b>3 CR</b>
<p>Contact Hours: 3 + 0 College Restriction: Must be in UAA College of Education. Registration Restrictions: Admission to Department of Teaching and Learning. Special Fees. Special Note: Outside class work includes a minimum of 30 hours field experience as part of course assignments. Field placement must be arranged by the College of Education. Partners may limit registration. Explores how children learn oral and written language. Examines language development and considers how culture, second language learning, and dialect influence these processes. Integrates structure of language and its application to the development and assessment of literacy.</p>			<p>Contact Hours: 3 + 0 Registration Restrictions: Departmental approval required. Special Note: This course meets the Alaska Department of Education and Early Development Alaska Studies requirement for State certification. History of Alaska education and current education policy with a focus on issues in Alaska Native education. Includes the study of the Alaska environment as well as the social, economic, and political history of Alaska from the perspective of both Alaska Native people and immigrant residents.</p>		
<b>EDFN A302</b>	<b>Foundations of Educational Technology</b>	<b>2 CR</b>	<b>EDFN A487</b>	<b>Field Experiences: Teacher Education</b>	<b>1-11 CR</b>
<p>Contact Hours: 2 + 0 Prerequisites: [EDSE A212 or PSY A245]. College Restriction: Must be in UAA College of Education. Registration Restrictions: Admission to the Department of Teaching and Learning. Special Fees. Presents skills and strategies needed to integrate technology into teaching and learning. Provides overview of issues, pedagogies, tools and skills needed to guide the effective use of technology with children. Supports appropriate use of technology in education.</p>			<p>Contact Hours: 0 + 2-22 Registration Restrictions: Departmental approval required. Grade Mode: Pass/No Pass. Special Fees. Field experiences in public school classrooms. Includes elementary, secondary, and physical education programs. Students gain practical experience in classroom settings. Assignments must be arranged through the College of Education.</p>		
<b>EDFN A303</b>	<b>Foundations of Teaching and Learning</b>	<b>3 CR</b>	<b>EDFN A601</b>	<b>Foundations: Philosophy of Education</b>	<b>2 CR</b>
<p>Contact Hours: 3 + 0 Prerequisites: (EDFN A301 or concurrent enrollment) and [EDSE A212 or PSY A245]. Registration Restrictions: Departmental approval required; Admission to the College of Education. Special Fees. Extends understanding of cognitive, affective, and communicative development of children and youth and connects these to current research, theories, and practices in teaching and learning. Emphasizes learning theory, models of teaching and assessment, and curriculum planning as the foundation for a developmentally appropriate teaching practice for inclusive classrooms. Course includes field experience.</p>			<p>Contact Hours: 2 + 0 Registration Restrictions: Departmental approval required. Special Fees. Examines significant educational philosophies. Explores the development of a personal educational philosophy that encourages continuous self-assessment and reflection with the goal of improving professional teaching practice.</p>		
<b>EDFN A304</b>	<b>Comparative Education</b>	<b>3 CR</b>	<b>EDFN A602</b>	<b>Foundations: Educational Psychology</b>	<b>2 CR</b>
<p>Contact Hours: 3 + 0 Registration Restrictions: Completion of all GER Tier 1 (basic college-level skills) courses and Junior standing. Course Attributes: UAA GER Integrative Capstone. Compares P-12 educational systems and issues across nations and regions, focusing on case examples representing diverse cultural, historical, and political contexts. Examines theories in comparative education; purposes of schooling; socio-cultural contexts of education; policy, curricular, and pedagogical responses to diversity issues; and organizational and structural issues.</p>			<p>Contact Hours: 2 + 0 Registration Restrictions: Departmental approval required. Special Fees. Examines significant educational movements, theories, and research in the areas of educational psychology. Develops a framework for professional practice. Includes study of theory, development, pedagogy, and instructional practice. Focus is on the teacher's role and responsibility in lesson development, curriculum design, instructional methods, and integration of relevant educational psychology.</p>		
<b>EDFN A444</b>	<b>Positive Learning Communities in K-6 Classrooms</b>	<b>1 CR</b>	<b>EDFN A603</b>	<b>Foundations: Educational History and Sociology</b>	<b>2 CR</b>
<p>Contact Hours: 1 + 0 Registration Restrictions: Departmental approval required. Special Note: Concurrent enrollment in internship required. Research-based strategies and practices in creating positive learning communities in K-6 classrooms. Provides realistic connections from theory to practice for implementing and evaluating strategies in classroom management.</p>			<p>Contact Hours: 2 + 0 Registration Restrictions: Departmental approval required. Special Fees. Examines significant educational historical periods. Explores how the current social, political, and policy forces came into existence and how they influence the day-to-day environment of today's teacher. Includes the development of belief system and worldview through examining key school experiences. Major educational reform efforts will be analyzed.</p>		
			<b>EDFN A612</b>	<b>Community Relations</b>	<b>3 CR</b>
			<p>Contact Hours: 3 + 0 Effective interpersonal and organizational communication, including facilitation, collaboration, conflict resolution, organizational change, dialogue, and intercultural communication.</p>		
			<b>EDFN A621</b>	<b>Culture, Language and Literacy</b>	<b>3 CR</b>
			<p>Contact Hours: 3 + 0 Registration Restrictions: Graduate standing in the College of Education Examination of the theoretical underpinnings of bilingual/cross-cultural and English as a second language (ESL) education as they apply to literacy issues. Special attention is given to research findings on first and second language acquisition and subsequent implications for the teaching of reading and writing.</p>		
			<b>EDFN A622</b>	<b>Philosophy of Education</b>	<b>3 CR</b>
			<p>Contact Hours: 3 + 0 Registration Restrictions: Graduate standing in the College of Education. Basic philosophic concepts and their historical development; philosophy applied to education and related issues and problems; examination of contributions of outstanding educators.</p>		

## Course Descriptions

<b>EDFN A627</b>	<b>Education Research</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Graduate standing in the College of Education. Techniques of education research; selection of topics and problems; data gathering; interpretation and preparation of reports.		
<b>EDFN A631</b>	<b>Advanced Educational Psychology</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Graduate standing in the College of Education. Human emotional, mental, physical and social development. Emphasis on individual differences. Assumes one previous course in human development, educational psychology, and teaching experience.		
<b>EDFN A636</b>	<b>Innovations in Teaching and Learning</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Significant and emerging theories of teaching and learning. Reviews current educational reform efforts and examines the research base of each initiative to assess potential effectiveness.		
<b>EDFN A647</b>	<b>Developing Literacies Across the K-12 Continuum</b>	<b>1 CR</b>
Contact Hours: 1 + 0 Prerequisites: EDFN A478 and EDFN A602. Registration Restrictions: Departmental approval required. Special Fees. Analysis and evaluation of current learning theory, models, and best practices for developing literacies, including visual, literary, and performing arts, in order to design appropriate pedagogy across the K-12 continuum.		
<b>EDFN A649</b>	<b>Capstone Seminar: Inquiry in Teaching and Learning</b>	<b>2 CR</b>
Contact Hours: 2 + 0 Prerequisites: CTE A695B or EDFN A695B. Registration Restrictions: Departmental approval required. Sharing, analysis, reflection, and presentation of theory-based classroom inquiry conducted during the MAT program. Interns will self-assess their classroom experiences and develop their educational philosophies in light of standards, research, and current educational trends and perspectives.		
<b>EDFN A651</b>	<b>Curriculum Theory and Development</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Curriculum theory as it applies to current developments in K-12 curriculum. Participants will be exposed to curricular, instructional and assessment issues which evolve from contemporary research.		
<b>EDFN A654</b>	<b>Brain, Mind, and Education</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Graduate standing. Critically examines research from various fields including neurobiology and psychology. Students will evaluate the research for potential implications for and applications to educational settings.		
<b>EDFN A670</b>	<b>Current Topics in Education</b>	<b>1-3 CR</b>
Contact Hours: 1-3 + 0 Registration Restrictions: Faculty permission. Special Note: May be repeated for credit with a change of subtitle. Restricted enrollment may apply; see advisor for applicability to degree program. Study of specific current issues, techniques and trends affecting educators.		
<b>EDFN A691</b>	<b>Current Topics in Second Language Education</b>	<b>1-3 CR</b>
Contact Hours: 1-3 + 0 Registration Restrictions: Graduate standing; basic fluency in a second language desirable. Focuses on second-language education, based on current research and first-hand experience from successful, established programs. Intended for administrators; early-childhood, elementary, secondary modern language or ESL teachers; and others planning to implement a second-language education program or currently participating in an established program.		
<b>EDFN A695</b>	<b>Internship</b>	<b>1-9 CR</b>
Contact Hours: 0 + 3-27 Prerequisites: EDFN A601 with minimum grade of C and EDFN A602 with minimum grade of C and EDFN A603 with minimum grade of C. Registration Restrictions: Departmental approval required. Grade Mode: Pass/No Pass. Special Fees. Special Note: This course operates in accordance with the K-12 school year calendar, not the University academic year calendar. Placement is arranged and supervised by the university in partnership with staff from the public school site. Partners may limit registration. Completion of 9 credits is required for the MAT. Supervised internship in a K-12 public school. Includes periodic on-campus seminars that emphasize theory-based inquiry into teaching and learning.		

<b>EDFN A695E</b>	<b>Internship: English for Speakers of Other Languages (ESOL)</b>	<b>2-4 CR</b>
Contact Hours: 0 + 6-12 Prerequisites: EDFN A478 and EDFN A602. Registration Restrictions: Departmental approval Grade Mode: Pass/No Pass. Supervised internship for candidates seeking a Graduate Certificate in Language Education in the ESOL concentration. Requires participation in a discussion group with an emphasis on theory-based inquiry into teaching and learning.		
<b>EDFN A698</b>	<b>Individual Research</b>	<b>1-6 CR</b>
Contact Hours: 1-6 + 0 Prerequisites: (EDFN A627 or concurrent enrollment). Registration Restrictions: Faculty permission. Grade Mode: Pass/No Pass. As directed by graduate committee.		
<b>EDFN A699</b>	<b>Thesis</b>	<b>1-6 CR</b>
Contact Hours: 1-6 + 0 Prerequisites: (EDFN A627 or concurrent enrollment). Registration Restrictions: Faculty permission. Grade Mode: Pass/No Pass. As directed by graduate committee.		

## EDL - Educational Development & Leadership

*Offered through the College of Education  
Professional Studies Building (PSB), Room 218, 786-4450  
[www.uaa.alaska.edu/coe/programs/leadership/index.cfm](http://www.uaa.alaska.edu/coe/programs/leadership/index.cfm)*

<b>EDL A637</b>	<b>Educational Leadership and Organizational Behavior</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Special Fees. Leadership and decision-making through collegial relations and consensus building in school settings. Includes skills for facilitating site-focused teams and activities, with emphasis on improving student performance and enhancing a school's reputation. Contemporary theories of organizational development and change are presented.		
<b>EDL A638</b>	<b>Instructional and Curricular Leadership</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Special Fees. Knowledge, skills, and resources for instructional leaders to develop and implement activities that improve learning. Emphasizes contemporary practices in curriculum and assessment that assist school personnel in strengthening classroom instruction and enhance student academic performance.		
<b>EDL A639</b>	<b>The Politics of Education</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Special Fees. Historical, social, and cultural influences that have shaped political decisions affecting the national, state, and local educational program. Attention to federal, state, and local requirements as they pertain to decisions of a principal. Analysis of political groups, formal, and informal for impact on school organization and curriculum. Current trends for historical significance and impact on schools of the future.		
<b>EDL A640</b>	<b>Law and Ethics in Education</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Special Fees. Knowledge and skills for developing professionally-sound legal and ethical practices in school settings. Legal issues that impact the organization and delivery of public education, including professional practice commissions standards and constitutional, statutory, administrative, and case law.		
<b>EDL A641</b>	<b>Principal Internship</b>	<b>3-6 CR</b>
Contact Hours: 0 + 9-18 Prerequisites: EDL A637 and EDL A640 and [(EDL A642 or concurrent enrollment) or (EDL A643 or concurrent enrollment)]. Registration Restrictions: Admission to the Ed Leadership program. Grade Mode: Pass/No Pass. Special Fees. Fieldwork in an appropriate educational or agency setting. Assignment will be respective to the Standards for Alaska's Administrators.		

<b>EDL A642</b>	<b>Principal's Seminar I</b>	<b>3 CR</b>	<b>EDL A671</b>	<b>Superintendent Stewardship and Systemic Change</b>	<b>3 CR</b>
<p>Contact Hours: 3 + 0 Prerequisites: EDL A637 and EDL A640. Registration Restrictions: Admission to Principal's Certification Program. Corequisite: EDL A641. Special Fees.</p> <p>Seminar presentations and discussions focus on urban/rural school-community relations and school facilities. Contributing school administrators augment academic instruction and offer a practical touchstone for students' research and writing.</p>			<p>Contact Hours: 3 + 0 Registration Restrictions: Master's Degree. Special Fees.</p> <p>Role of superintendent as the steward of the entire school system and the leader responsible for improving student learning through public accountability measures.</p>		
<b>EDL A643</b>	<b>Principal's Seminar II</b>	<b>3 CR</b>	<b>EDL A672</b>	<b>Student Performance: Academic and Developmental</b>	<b>3 CR</b>
<p>Contact Hours: 3 + 0 Prerequisites: EDL A637 and EDL A640. Registration Restrictions: Admission to Principal's Certification Program. Corequisite: EDL A641. Special Fees.</p> <p>School seminar presentations and discussions focus on school finance, personnel, and labor relations. Contributing school administrators augment academic instruction and offer a practical touchstone for students' research and writing.</p>			<p>Contact Hours: 3 + 0 Registration Restrictions: Master's Degree. Special Fees.</p> <p>Focus on the superintendent's need to understand developmental research that explains student academic performance including the psycho-social, physiological, and cultural dimensions.</p>		
<b>EDL A652</b>	<b>Introduction to Teacher Leadership</b>	<b>3 CR</b>	<b>EDL A673</b>	<b>Human Resource Management and Labor Relations</b>	<b>3 CR</b>
<p>Contact Hours: 3 + 0 Registration Restrictions: Graduate standing</p> <p>Exploration and broad overview of teacher leadership. Emphasizes collaborative processes, reflection, and school-based research as paths to improving professional practice.</p>			<p>Contact Hours: 3 + 0 Registration Restrictions: Master's Degree.</p> <p>Tools and approaches that enable superintendents to manage personnel and negotiation transactions within a school district.</p>		
<b>EDL A652A</b>	<b>Introduction to Teacher Leadership I</b>	<b>1 CR</b>	<b>EDL A674</b>	<b>Public School Finance and Facilities</b>	<b>3 CR</b>
<p>Contact Hours: 1 + 0 Registration Restrictions: Graduate standing</p> <p>Exploration and broad overview of teacher leadership. Emphasizes collaborative processes, reflection, and school-based research as paths to improving professional practice.</p>			<p>Contact Hours: 3 + 0 Registration Restrictions: Master's Degree. Special Fees.</p> <p>Key components of K-12 public school finance and K-12 facility design and maintenance as they relate to the preparation of superintendents.</p>		
<b>EDL A652B</b>	<b>Introduction to Teacher Leadership II</b>	<b>2 CR</b>	<b>EDL A675</b>	<b>Superintendent Internship</b>	<b>3-6 CR</b>
<p>Contact Hours: 2 + 0 Prerequisites: EDL A652A. Registration Restrictions: Graduate standing</p> <p>Extension of the exploration and broad overview of teacher leadership. Emphasizes collaborative processes, reflection, and school-based research as paths to improving professional practice, as a continuation of Introduction to Teacher Leadership I.</p>			<p>Contact Hours: 0 + 9-18 Prerequisites: (EDL A676 or concurrent enrollment) or (EDL A677 or concurrent enrollment). Registration Restrictions: Admission to the Ed Leadership Superintendent program and completion of any two of EDL A671, A672, A673, and A674. Grade Mode: Pass/No Pass. Special Fees.</p> <p>Special Note: May be repeated for a maximum of 6 credits.</p> <p>Fieldwork in an appropriate educational or agency setting. Assignment will be respective to the superintendency.</p>		
<b>EDL A653</b>	<b>Leadership for Equity</b>	<b>3 CR</b>	<b>EDL A676</b>	<b>Superintendent Seminar I</b>	<b>3 CR</b>
<p>Contact Hours: 3 + 0 Registration Restrictions: Graduate standing</p> <p>Focuses on implementing and practicing leadership. Emphasizes equity and excellence in schools. Candidates learn to challenge in themselves and in schools the intellectual structures, definitions and assumptions about people that lead to inequities.</p>			<p>Contact Hours: 3 + 0 Registration Restrictions: Admission to the Ed Leadership Superintendent program and completion of any two of EDL A671, A672, A673, and A674. Corequisite: EDL A675. Special Fees.</p> <p>Themes of policy development and implementation, school- community relations, and instructional reform with a focus on state and local events and issues. Supplements EDL A675. Provides opportunity to interns for structured reflection and added input.</p>		
<b>EDL A654</b>	<b>Building Mentoring Relationships</b>	<b>3 CR</b>	<b>EDL A677</b>	<b>Superintendent Seminar II</b>	<b>3 CR</b>
<p>Contact Hours: 3 + 0 Registration Restrictions: Graduate standing</p> <p>Focuses on the theories inherent in successful mentoring relationships and induction programs. Emphasizes the analysis and application of research and best practices in development of skills, understanding, and integration of theory in formal mentoring programs.</p>			<p>Contact Hours: 3 + 0 Registration Restrictions: Admission to the Ed Leadership Superintendent program and completion of any two of EDL A671, A672, A673, and A674. Corequisite: EDL A675. Special Fees.</p> <p>Themes of policy development and implementation, human resource management, and district level finance and facilities management. Supplements EDL A675. Provides opportunity to interns for structured reflection and added input.</p>		
<b>EDL A655</b>	<b>Professional Development and Teacher Learning</b>	<b>2 CR</b>	<b>EDRD - Education - Reading</b>		
<p>Contact Hours: 2 + 0 Registration Restrictions: Graduate standing</p> <p>Examines the ways in which organizational policies, leadership, and professional practices affect the quality of teaching and learning. The focus is on critical analysis of the complex nature of teacher learning and professional growth with application of this knowledge to designing organizational programs.</p>					
<b>EDL A659</b>	<b>Teacher Leadership Capstone Project</b>	<b>3 CR</b>	<i>Offered through the College of Education</i>		
<p>Contact Hours: 3 + 0 Prerequisites: EDAE A656 and EDL A637 and EDL A638 and EDL A639 and EDL A652 and EDL A653 and EDL A654 and EDL A655. Registration Restrictions: Admission to the Teacher Leadership Program. Special Note: May be repeated to six hours.</p> <p>Culminating demonstration of skills and applied theories for the improvement of professional practice through the initiation of a student-determined research project. Provides for structured demonstration and documentation of collaborative processes in all phases of the research project.</p>			<i>Professional Studies Building (PSB), Room 220, 786-4481</i>		
			<i>www.uaa.alaska.edu/coe</i>		
			<b>EDRD A603</b>	<b>Developing Literacy: Early Childhood through Grade Twelve</b>	<b>3 CR</b>
			<p>Contact Hours: 3 + 0 Prerequisites: EDFN A621. Registration Restrictions: Current Teaching Certificate.</p> <p>Study of the development of literacy from early childhood to grade twelve. Course work emphasis on continuum of reading, writing development, underlying social and cognitive processes, and the pedagogical implications based on literacy theory.</p>		

## Course Descriptions

**EDRD A610 Reading and Cognition 3 CR**  
Contact Hours: 3 + 0  
Registration Restrictions: Current Teaching Certificate.  
Focus on the theory and process of reading and cognition, particularly the relationship between reading and thinking. Students also explore issues related to the meaning of text and the development of comprehension for Kindergarten through grade twelve students. A review of the literature concerning research and theory about processes is a key element of the course.

## EDRS - Education - Research

*Offered through the College of Education*

*Professional Studies Building (PSB), 786-4450*

[www.uaa.alaska.edu/coe/programs/leadership/index.cfm](http://www.uaa.alaska.edu/coe/programs/leadership/index.cfm)

**EDRS A660 Fundamentals of Research in Education 2 CR**  
Contact Hours: 2 + 0  
Registration Restrictions: Graduate standing.  
Provides exposure to fundamental language and concepts of research. Introduces students to research articles and reports to enhance understanding of their fields and ability to practice. Lays foundation for additional research courses.

**EDRS A661 Data-Informed Instruction 2 CR**  
Contact Hours: 2 + 0  
Prerequisites: (EDRS A660 or concurrent enrollment).  
Registration Restrictions: Graduate standing or permission of the instructor.  
Focuses on the educators' understanding, analysis, and application of student achievement and other school and student data to inform instructional decisions, planning, and actions at the school, classroom, and individual student levels.

**EDRS A662 Action Research in Education 2 CR**  
Contact Hours: 2 + 0  
Prerequisites: (EDRS A660 or concurrent enrollment).  
Registration Restrictions: Graduate standing or permission of the instructor.  
Empowers teachers, administrators, and other educators to participate in a socially responsive research process that seeks a solution to a problem. Emphasizes collaboration.

**EDRS A663 Research Design 2 CR**  
Contact Hours: 2 + 0  
Prerequisites: (EDRS A660 or concurrent enrollment).  
Registration Restrictions: Graduate standing.  
Introduction to research design, with an emphasis on developing viable research proposals.

**EDRS A664 Developing and Writing Literature Reviews 2 CR**  
Contact Hours: 2 + 0  
Prerequisites: (EDRS A660 or concurrent enrollment).  
Registration Restrictions: Graduate standing.  
Focuses on developing skills in reviewing professional literature. Participants will develop and practice the skills of literature search, organization, review and synthesis, resulting in a narrative survey of academic literature for a focused topic area.

**EDRS A667 Program Evaluation 2 CR**  
Contact Hours: 2 + 0  
Prerequisites: (EDRS A660 or concurrent enrollment).  
Registration Restrictions: Graduate standing.  
Introduces purpose, process, and utility of program evaluation. Emphasizes models, standards and types of program evaluation.

**EDRS A668 Introduction to Qualitative Research in Education 2 CR**  
Contact Hours: 2 + 0  
Prerequisites: (EDRS A660 or concurrent enrollment).  
Registration Restrictions: Graduate standing.  
Fundamentals of qualitative research methods. Addresses major qualitative research traditions, common and developing issues, and essential processes.

## EDSA - Education - School-Age Care

*Offered through the College of Education*

*Professional Studies Building (PSB), Room 220, 786-4481*

[www.uaa.alaska.edu/coe](http://www.uaa.alaska.edu/coe)

**EDSA A101 Program Management for School-Age Care 2 CR**  
Contact Hours: 2 + 0  
Provides an introduction to the operation of out-of-school programs for children ages 5-12.

**EDSA A102 Positive Learning Environments in School-Age Care 2 CR**  
Contact Hours: 2 + 0  
Examines the role of non-teaching care providers in supporting the social, emotional and moral development of the school-age child. Relevant skills will be applied in a field experience through observation and interaction.

**EDSA A202 School-Age Care Program Planning 2 CR**  
Contact Hours: 2 + 0  
Prerequisites: EDSA A101 and EDSA A102 and EDSE A212 and PSY A245.  
Provides introduction to theory, approaches and practice in developing programs for diverse groups of children in school-age care.

**EDSA A212 Program Development for School-Age Care 2 CR**  
Contact Hours: 2 + 0  
Prerequisites: EDSA A202.  
Provides more advanced approaches, methods and evaluation strategies for school-age care programs.

**EDSA A234 Administration and Supervision for School-Age Care 3 CR**  
Contact Hours: 3 + 0  
Prerequisites: EDSE A212 and PSY A245.

Provides theory and practice in administration of school-age care programs, including staff supervision, community relations, leadership and fiscal management.

**EDSA A290 Special Topics School-Age Care 1 CR**  
Contact Hours: 1 + 0  
Prerequisites: EDSE A212 and PSY A245.  
Special Note: May be repeated for credit with change in subtitle.  
Provides opportunity to address theory and practice in special and emerging topics of interest to school-age care providers and administrators.

**EDSA A295A Practicum for School-Age Care 2 CR**  
Contact Hours: 0 + 10  
Prerequisites: EDSA A101 and EDSA A102 and EDSE A212 and PSY A245.  
Registration Restrictions: Department approval.  
Corequisite: EDSA A202.  
Grade Mode: Pass/No Pass.  
Supervised field experience in school-age care. Students develop, implement and evaluate elements of a comprehensive, developmentally appropriate care, recreation and learning environment.

**EDSA A295B Advanced Practicum for School-Age Care 1 CR**  
Contact Hours: 0 + 5  
Prerequisites: EDSA A212 and EDEC A242 and PSY A245.  
Registration Restrictions: Department approval.  
Corequisite: EDSA A234.  
Grade Mode: Pass/No Pass.  
Supervised field experience in school-age care. Students develop, implement and evaluate elements of a comprehensive, developmentally appropriate care, recreation and learning environment.

## EDSE - Education - Special Education

*Offered through the College of Education*

*Professional Studies Building (PSB), Room 225, 786-6317*

[www.uaa.alaska.edu/coe](http://www.uaa.alaska.edu/coe)

**EDSE A212 Human Development and Learning 3 CR**  
Contact Hours: 3 + 0  
Registration Restrictions: Department approval.  
Emphasizes cognitive, physical, emotional, social, and communicative development of children and youth. Patterns and sequences of development are explored in terms of learning that is occurring in the home, school, or neighborhood. Students will become familiar with the major categories of disability. The information provided will be reviewed in relation to formal and informal school learning, including the need for accommodations, teaching, and curricular requirements and modifications.

**EDSE A212L Human Development and Learning Lab 1 CR**  
Contact Hours: 0 + 2  
Registration Restrictions: Departmental approval.  
Grade Mode: Pass/No Pass.

Laboratory experience that extends the understanding of linguistic, cognitive, affective, social, and physical development of children gained from EDSE A212, Human Development and Learning. Includes observations in settings such as early intervention sites, pre-schools, elementary schools, and private and public agencies delivering to young children.

<b>EDSE A215</b>	<b>Introduction to Inclusive Early Education: Strategies</b>	<b>3 CR</b>	<b>EDSE A483</b>	<b>Language and Literacy: Assessment and Interventions</b>	<b>3 CR</b>
<p>Contact Hours: 3 + 0 Special Fees.</p> <p>Introduction to early childhood settings which include children with special needs. Overview of inclusive strategies in the classroom, home, and community. Includes introduction to the Individualized Family Service Plan, Individual Education Plan, and interdisciplinary team roles.</p>			<p>Contact Hours: 3 + 0</p> <p>Focuses on literacy development for children who have special needs, are linguistically and culturally diverse, and/or at-risk for learning problems. The relationship among language, reading, and writing is explored. Topics include assessment, instructional strategies, Individualized Education Program (IEP) development, and models of literacy programs.</p>		
<b>EDSE A216</b>	<b>Family and Community Issues: Supporting a Child with Special Needs</b>	<b>3 CR</b>	<b>EDSE A610</b>	<b>Clinical Assessment: Eligibility and Program Planning</b>	<b>3 CR</b>
<p>Contact Hours: 3 + 0 Special Fees.</p> <p>Introduction to family and community dynamics in caring for and supporting children, birth to age eight, with special needs. Includes study of preventive strategies, rural settings and cultural issues.</p>			<p>Contact Hours: 3 + 0 Registration Restrictions: Graduate Standing. Special Fees.</p> <p>Provides a practical, applied approach for analyzing and synthesizing assessment for eligibility, program planning, and progress monitoring. Course includes techniques for formal and informal tools and procedures with a review of terminology and statistics. Emphasizes concepts related to assessment including response to intervention, culturally and linguistically diverse learners, academically diverse learners, and accommodations.</p>		
<b>EDSE A217</b>	<b>Behavioral Health: Young Children with Special Needs</b>	<b>3 CR</b>	<b>EDSE A610Y</b>	<b>Assessment: Early Childhood Special Education</b>	<b>3 CR</b>
<p>Contact Hours: 3 + 0 Special Fees.</p> <p>Examination of behavioral health of children with special needs from birth to age eight. Topics include introduction to identification; classification of diagnosis; impact of special needs on behavior; child abuse and neglect; inclusion of children with challenging behaviors; team approach in behavioral health.</p>			<p>Contact Hours: 3 + 0 Registration Restrictions: Graduate Standing. Special Fees.</p> <p>Techniques for assessing young children with special needs and their families. Historical development, basic purposes and assumptions of assessment, testing terminology and statistics, and the administration and interpretation of formal and informal procedures.</p>		
<b>EDSE A218</b>	<b>Understanding Legal and Ethical Issues: Young Children with Special Needs</b>	<b>3 CR</b>	<b>EDSE A611</b>	<b>Supporting Families of Exceptional Children</b>	<b>2 CR</b>
<p>Contact Hours: 3 + 0 Special Fees.</p> <p>In-depth look at the legal issues involved in working with young children with special needs. Examination of laws ADA and IDEA; IFSP and IEP processes; crisis intervention; mandated reporting of child abuse and neglect; cultural issues; legal guardianship. Confidentiality and service delivery in rural and remote areas stressed.</p>			<p>Contact Hours: 2 + 0 Registration Restrictions: Graduate standing. Special Fees.</p> <p>Focuses on families of children with exceptionalities. Examines factors that impact school-parent relationships. Focuses on developing and implementing strategies to initiate and maintain positive relationships between families and the school.</p>		
<b>EDSE A219</b>	<b>Early Childhood Special Needs: Applied Communication Strategies</b>	<b>3 CR</b>	<b>EDSE A614S</b>	<b>Beginning Internship in Speech-Language Pathology</b>	<b>1-12 CR</b>
<p>Contact Hours: 3 + 0 Special Fees.</p> <p>Overview of basic components of early childhood communication disorders: speech sound development, grammar, vocabulary, nonverbal communication, and language disorders. Applied techniques with hands-on material preparation and practice with paraprofessional screening tools. Intervention techniques appropriate in early childhood settings that include children with special needs.</p>			<p>Contact Hours: 0 + 3-18 Registration Restrictions: Admission to Master's program in speech-language pathology at the University of Northern Colorado or East Carolina University and to the internship. Special Fees.</p> <p>Provides supervised beginning internship experiences in speech-language pathology.</p>		
<b>EDSE A419</b>	<b>Diversity in the Classroom</b>	<b>3 CR</b>	<b>EDSE A620S</b>	<b>Advanced Internship in Speech-Language Pathology</b>	<b>1-12 CR</b>
<p>Contact Hours: 3 + 0 Registration Restrictions: Admission to College of Education. Special Fees.</p> <p>Examination of diversity issues that impact education including linguistic and cultural considerations as well as disabilities. Course includes instructional methods and practices that enhance learning.</p>			<p>Contact Hours: 0 + 3-18 Registration Restrictions: Admission to Master's program in speech-language pathology at the University of Northern Colorado or East Carolina University and to the internship. Special Fees.</p> <p>Provides supervised advanced internship experiences in speech-language pathology.</p>		
<b>EDSE A474</b>	<b>Special Children from Birth through Five</b>	<b>3 CR</b>	<b>EDSE A620Y</b>	<b>Advanced Internship: Early Childhood</b>	<b>3-6 CR</b>
<p>Contact Hours: 3 + 0 Class Standing Restriction: Must be Junior or Senior. Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Junior, senior, or graduate standing Special Note: Field experience required.</p> <p>Apply knowledge of child development and theories to analyze the laws, policies and procedures that form the framework for early intervention and early childhood special education. Emphasis on disabilities, Individuals with Disabilities Act, and intervention methods.</p>			<p>Contact Hours: 1 + 6-15 Registration Restrictions: Admission to M.Ed. option in Early Childhood Special Education, instructor approval, and graduate standing. Grade Mode: Pass/No Pass. Special Fees.</p> <p>Supervised field experience with exceptional children in Anchorage area facilities. Assignments vary across areas of specialization.</p>		
<b>EDSE A480</b>	<b>Culture, Schools, and Society</b>	<b>3 CR</b>	<b>EDSE A622</b>	<b>Theories and Strategies</b>	<b>3 CR</b>
<p>Contact Hours: 3 + 0 Prerequisites: ED A321.</p> <p>Interdisciplinary study of cultural issues in contemporary schools and society. Considers the psychological and social factors in the educational process. Specific attention given to curricular improvement and teaching strategies appropriate for diverse populations.</p>			<p>Contact Hours: 3 + 0 Registration Restrictions: Graduate standing. Special Fees.</p> <p>Provides in-depth understanding of best practices in instruction of students in special education. Links learning theories and learner characteristics to instructional strategies. Emphasizes inclusive educational settings and collaboration skills needed to work effectively with other professionals.</p>		
<b>EDSE A482</b>	<b>Inclusive Classrooms for All Children</b>	<b>3 CR</b>			
<p>Contact Hours: 3 + 0 Class Standing Restriction: Must be Graduate Doctoral or Graduate Masters or Graduate Unspecified or Junior or Post-Baccalaureate or Senior. Registration Restrictions: Junior standing or higher</p> <p>Provides an in-depth understanding of concepts, strategies, and issues that surround supporting the needs of students who experience disabilities in the general education classroom.</p>					

## Course Descriptions

<p><b>EDSE A622Y</b>                      <b>Strategies:</b>                      <b>3 CR</b>  <b>Early Childhood Special Education</b></p> <p>Contact Hours: 3 + 0  Registration Restrictions: Graduate Standing.  Special Fees.</p> <p>Provides in-depth understanding of best-practice strategies in the field of early intervention. Presents concepts necessary to prepare students to work with infants, toddlers, and preschoolers with disabilities and their families.</p>	<p><b>EDSE A670</b>                      <b>Topics in Special Education</b>                      <b>1-3 CR</b></p> <p>Contact Hours: 1-3 + 0  Registration Restrictions: Graduate standing.  Special Fees.  Special Note: May be repeated with a change in subtitle. A maximum of 6 credits may be applied to a degree program.  Explores issues of concern to professionals in special education and related fields.</p>
<p><b>EDSE A623</b>                      <b>Language and Literacy:</b>                      <b>3 CR</b>  <b>Best Practices in Assessment and Intervention</b></p> <p>Contact Hours: 3 + 0  Registration Restrictions: Graduate standing.  Special Fees.</p> <p>Current research on literacy acquisition, assessment, and intervention. Emphasizes use of evidence-based practices in assessment and intervention. Identifies the link between language and literacy development and intervention. Considers academic, cultural, and linguistic diversity.</p>	<p><b>EDSE A674</b>                      <b>Families: Developing</b>                      <b>3 CR</b>  <b>Parent Professional Partnerships</b></p> <p>Contact Hours: 3 + 0  Registration Restrictions: Faculty permission and graduate standing.  Special Fees.</p> <p>Concepts and practices related to providing family centered services to families who have a member who experiences a disability. Professionals will be provided with an in-depth understanding of concepts and strategies required to develop effective parent/professional partnerships.</p>
<p><b>EDSE A624</b>                      <b>Social/Emotional Development,</b>                      <b>3 CR</b>  <b>Assessment, and Intervention</b></p> <p>Contact Hours: 3 + 0  Registration Restrictions: Graduate standing.  Special Fees.</p> <p>Current research in both normal and abnormal social/emotional development. Emphasizes the use of research-based practices in assessment and intervention. Explores academic and cultural diversity in the social/emotional growth of students with learning differences.</p>	<p><b>EDSE A675</b>                      <b>Supervision</b>                      <b>2 CR</b></p> <p>Contact Hours: 2 + 0  Registration Restrictions: Graduate standing.  Special Fees.</p> <p>Provides a theoretical and practical overview of best practices in supervision in education, special education, and related services. The course provides opportunities to practice skills through interactive activities and case studies.</p>
<p><b>EDSE A625</b>                      <b>Teaching Mathematics to Special Learners</b>                      <b>3 CR</b></p> <p>Contact Hours: 3 + 0  Registration Restrictions: Graduate standing.  Special Fees.</p> <p>Provides assessment and instructional strategies in mathematics for teachers of students with disabilities. Focuses on standards-based instruction, explicit instruction, curriculum-based assessments, and preparation of students for high stakes testing.</p>	<p><b>EDSE A676</b>                      <b>Special Education Finance</b>                      <b>2 CR</b></p> <p>Contact Hours: 2 + 0  Registration Restrictions: Graduate standing.  Special Fees.</p> <p>Focuses on sources and processes for funding special education and related services. Other financial management processes are included.</p>
<p><b>EDSE A632</b>                      <b>Special Education Law:</b>                      <b>3 CR</b>  <b>Principles and Practices</b></p> <p>Contact Hours: 3 + 0  Registration Restrictions: Graduate standing.  Special Fees.</p> <p>Examines three federal laws that form the foundation of disability law: Individuals with Disabilities Education Act (IDEA) 2004; Section 504 of the Rehabilitation Act of 1973; and the Americans with Disabilities Act. Focuses on substantive principles that underlie procedural requirements. Includes due process issues and case law analysis. Includes creation of a legally defensible Individual Educational Program (IEP).</p>	<p><b>EDSE A677</b>                      <b>Multidisciplinary Seminar</b>                      <b>1 CR</b>  <b>in Children's Mental Health</b></p> <p>Contact Hours: 1 + 0  Level Restriction: Must be Graduate - UAA level.  Registration Restrictions: Graduate standing  Crosslisted with: PSY A677 and SWK A677.  Special Note: Course is one credit per semester over two sequential semesters  Provides an interdisciplinary approach to working with children and families in a variety of behavioral/mental health and educational settings.</p>
<p><b>EDSE A633</b>                      <b>Autism: Communication and Social Disorders</b>                      <b>3 CR</b></p> <p>Contact Hours: 3 + 0  Registration Restrictions: Graduate standing.  Special Fees.</p> <p>Current methods for assessment and intervention for students with autism. Current issues and trends impacting educational practices are analyzed. Case study method used to make assessment and instructional decisions. Parent communication is emphasized.</p>	<p><b>EDSE A681</b>                      <b>Issues in Early Childhood Special Education</b>                      <b>3 CR</b></p> <p>Contact Hours: 3 + 0  Registration Restrictions: Graduate Standing.  Special Fees.  Special Note: Students are expected to participate in experiences outside of the regular class period (15 hours).</p> <p>A critical study of theoretical and practical issues related to personal, curricular, cultural, political, coordination, and service delivery needs of young children who experience disabilities and their families.</p>
<p><b>EDSE A634</b>                      <b>Support and Supervision of Paraeducators</b>                      <b>3 CR</b></p> <p>Contact Hours: 3 + 0  Registration Restrictions: Graduate standing.  Special Fees.</p> <p>Review and analysis of the literature on utilization, support, and supervision of paraeducators. Special attention is given to the knowledge and skills needed by supervising teachers. Course includes the benefits and concerns regarding utilization of paraeducators, and common problems and solutions are identified.</p>	<p><b>EDSE A685</b>                      <b>Young Children with Complex Needs</b>                      <b>3 CR</b></p> <p>Contact Hours: 3 + 0  Registration Restrictions: Graduate Standing.  Special Fees.</p> <p>Professionals working with families and their young children, who experience severe medical-complex needs, will acquire basic knowledge and awareness of medical, educational, and health issues.</p>
<p><b>EDSE A637</b>                      <b>Inclusive Teaching and Learning</b>                      <b>2 CR</b>  <b>in Content Area Classrooms</b></p> <p>Contact Hours: 2 + 0  Prerequisites: EDFN A601 with minimum grade of C and EDFN A602 with minimum grade of C and EDFN A603 with minimum grade of C.  Level Restriction: Must be Graduate - UAA level.  Registration Restrictions: Departmental approval required; Graduate standing.  Special Note: Concurrent enrollment in internship required.</p> <p>Focuses on the inclusion of students with special learning needs and disabilities in the content area classroom. Attention will be paid to the philosophy of inclusion and the role of the content area teacher in providing appropriate classroom instruction for all the students within the inclusive classroom and other least restrictive settings.</p>	<p><b>EDSE A690</b>                      <b>Advanced Seminar: Special Education</b>                      <b>3 CR</b></p> <p>Contact Hours: 3 + 0  Registration Restrictions: Graduate Standing.  Special Fees.</p> <p>Special Note: Intended for the post special education certification/master's student with field experience. The content of the course varies and it may be repeated for credit.</p> <p>Current issues of concern to professionals in special education and related fields. Issues include ethics, philosophy, multidisciplinary emphasis, assessment and intervention approaches, and new directions in the field of special education.</p>
	<p><b>EDSE A691</b>                      <b>Children's Mental Health Systems of Care</b>                      <b>3 CR</b></p> <p>Contact Hours: 3 + 0  Level Restriction: Must be Graduate - UAA level.  Registration Restrictions: Graduate standing  Crosslisted with: PSY A691 and SWK A691.</p> <p>Expands systems of care as a coordinated network of community-based services and supports that are organized, multidisciplinary, and in partnership with youth and family. Addresses the cultural and linguistic needs of families in order to meet the challenges of children and youth with serious mental health needs.</p>

<b>EDSE A695D</b>	<b>Internship: Special Education Administration</b>	<b>3-6 CR</b>	<b>EDSY A648</b>	<b>Developing Literacies in the Secondary Content Areas</b>	<b>1 CR</b>
<p>Contact Hours: 0 + 15-30 Prerequisites: EDL A638 and EDRS A667 and EDSE A632 and EDSE A675 and EDSE A676. Registration Restrictions: Departmental approval, admission to internship. Grade Mode: Pass/No Pass. Special Fees. Field-based experience in the administration, supervision, and coordination of services for students with disabilities and their families.</p>			<p>Contact Hours: 1 + 0 Prerequisites: EDFN A647. Registration Restrictions: Departmental approval required. Special Fees. Special Note: Concurrent enrollment in internship required. Focuses on supporting 7-12 student development in multiple literacies, including visual, literary, and performing arts. Content area instruction and assessment strategies for multiple literacies.</p>		
<b>EDSE A695E</b>	<b>Advanced Internship in Special Education: Elementary</b>	<b>3-6 CR</b>	<b>EDSY A661</b>	<b>General Methods for Secondary Classrooms</b>	<b>3 CR</b>
<p>Contact Hours: 0 + 9-18 Registration Restrictions: Graduate standing. Departmental approval. Grade Mode: Pass/No Pass. Special Fees. Special Note: Must apply by specified deadline--see advisor. Supervised internship in elementary school settings with children with disabilities.</p>			<p>Contact Hours: 3 + 0 Prerequisites: EDFN A601 with minimum grade of C and EDFN A602 with minimum grade of C and EDFN A603 with minimum grade of C. Registration Restrictions: Departmental approval required. Special Fees. Special Note: Concurrent enrollment in internship is required. Fundamentals of methodology, standards-based curriculum planning, and assessment for the diverse student populations in middle and high school classrooms. Focuses on the development of professional teaching dispositions and practices appropriate for secondary curricula. Integrates technology and all forms of literacy.</p>		
<b>EDSE A695S</b>	<b>Advanced Internship in Special Education: Secondary</b>	<b>3-6 CR</b>	<b>EDSY A663</b>	<b>Teaching English/Language Arts in Secondary Schools</b>	<b>3 CR</b>
<p>Contact Hours: 0 + 9-18 Registration Restrictions: Graduate standing. Department approval. Grade Mode: Pass/No Pass. Special Fees. Special Note: Must apply by specified deadline--see advisor. Supervised internship in secondary school settings with children with disabilities.</p>			<p>Contact Hours: 3 + 0 Prerequisites: EDFN A601 with minimum grade of C and EDFN A602 with minimum grade of C and EDFN A603 with minimum grade of C. Registration Restrictions: Departmental approval required. Special Fees. Special Note: Concurrent enrollment in internship is required. Fundamentals of standards-based, integrated curriculum planning and assessment for the diverse student populations in secondary English/Language Arts classrooms. Focuses on the development of professional teaching dispositions and practices appropriate for secondary English/Language Arts curricula. Integrates technology and all forms of literacy.</p>		
<b>EDSE A698</b>	<b>Individual Research</b>	<b>1-6 CR</b>	<b>EDSY A664</b>	<b>Teaching Social Studies in Secondary Schools</b>	<b>3 CR</b>
<p>Contact Hours: 0 + 3-18 Prerequisites: ED A627. Grade Mode: Pass/No Pass. Special Fees. As directed by graduate committee.</p>			<p>Contact Hours: 3 + 0 Prerequisites: EDFN A601 with minimum grade of C and EDFN A602 with minimum grade of C and EDFN A603 with minimum grade of C. Registration Restrictions: Departmental approval required. Special Fees. Special Note: Concurrent enrollment in internship is required. Fundamentals of standards-based, integrated curriculum planning and assessment for the diverse student populations in secondary social studies classrooms. Focuses on the development of professional teaching dispositions and practices appropriate for social studies curricula. Integrates technology and all forms of literacy.</p>		
<b>EDSE A699</b>	<b>Thesis</b>	<b>1-6 CR</b>			
<p>Contact Hours: 0 + 3-18 Prerequisites: ED A627. Grade Mode: Pass/No Pass. Special Fees. As directed by graduate committee.</p>					
<b>EDSY - Education - Secondary Education</b>					
<i>Offered through the College of Education</i>					
<i>Professional Studies Building (PSB), Room 220, 786-4481</i>					
<i>www.uaa.alaska.edu/coe</i>					
<b>EDSY A630</b>	<b>Language, Culture, and Teaching in Secondary Schools</b>	<b>2 CR</b>	<b>EDSY A665</b>	<b>Teaching Mathematics in Secondary Schools</b>	<b>3 CR</b>
<p>Contact Hours: 2 + 0 Prerequisites: EDFN A478 and EDFN A602. Registration Restrictions: Departmental approval required. Special Fees. Special Note: Concurrent enrollment in internship required. Examines multicultural education as the responsibility of all educators. Focuses on second language acquisition, and how culture influences language and literacy development. Discusses the cognitive academic language demands of content area classrooms. Emphasis is placed on integrating research-based teaching strategies for supporting all aspects of cognitive academic language development, including reading, oral language, writing, and visual literacy. Includes the importance of culturally responsive teaching as an integral component of the learning environment.</p>			<p>Contact Hours: 3 + 0 Prerequisites: EDFN A601 with minimum grade of C and EDFN A602 with minimum grade of C and EDFN A603 with minimum grade of C. Registration Restrictions: Departmental approval required. Special Fees. Special Note: Concurrent enrollment in internship is required. Fundamentals of standards-based, integrated curriculum planning and assessment for the diverse student populations in secondary mathematics classrooms. Focuses on the development of professional teaching dispositions and practices appropriate for secondary mathematics curricula. Integrates technology and all forms of literacy.</p>		
<b>EDSY A644</b>	<b>Community of Learners in Content Area Classrooms</b>	<b>3 CR</b>	<b>EDSY A667</b>	<b>Teaching World Language in Secondary Schools</b>	<b>3 CR</b>
<p>Contact Hours: 3 + 0 Prerequisites: EDFN A601 with minimum grade of C and EDFN A602 with minimum grade of C and EDFN A603 with minimum grade of C. Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Departmental approval required; Graduate standing. Special Fees. Special Note: Concurrent enrollment in internship required. Examines schools as complex social systems. The course will focus on students' learning, development, and academic achievement, with attention given to the development of classroom learning communities that meet the diverse needs of students.</p>			<p>Contact Hours: 3 + 0 Prerequisites: EDFN A601 with minimum grade of C and EDFN A602 with minimum grade of C and EDFN A603 with minimum grade of C. Registration Restrictions: Departmental approval required. Special Fees. Special Note: Concurrent enrollment in internship is required. Fundamentals of standards-based, integrated curriculum planning and assessment for the diverse student populations in secondary world language classrooms. Focuses on the development of professional teaching dispositions and practices appropriate for secondary world language curricula. Integrates technology and all forms of literacy.</p>		

## Course Descriptions

### EDSY A668 Teaching English as a Second Language in Secondary Schools 3 CR

Contact Hours: 3 + 0

Prerequisites: EDFN A601 with minimum grade of C and EDFN A602 with minimum grade of C and EDFN A603 with minimum grade of C.

Registration Restrictions: Departmental approval required.

Special Fees.

Special Note: Concurrent enrollment in internship is required.

Fundamentals of standards-based, integrated curriculum planning and assessment for the diverse student populations in secondary classrooms. Includes content areas typically taught in secondary English as a Second Language/bilingual curriculum. Focuses on the development of professional teaching dispositions and practices appropriate for secondary curricula. Integrates technology and all forms of literacy.

### EDSY A669 Teaching Science in Secondary Schools 3 CR

Contact Hours: 3 + 0

Prerequisites: EDFN A601 with minimum grade of C and EDFN A602 with minimum grade of C and EDFN A603 with minimum grade of C.

Registration Restrictions: Departmental approval required.

Special Fees.

Special Note: Concurrent enrollment in internship is required.

Fundamentals of standards-based, integrated curriculum planning and assessment for the diverse student populations in secondary science classrooms. Focuses on the development of professional teaching dispositions and practices appropriate for a safe and humane inquiry-based secondary science learning environment that emphasizes the learner, the content, the context and the community. Integrates technology and all forms of literacy.

## EE - Electrical Engineering

Offered through the School of Engineering

Engineering Building (ENGR), Room 201, 786-1900

[www.engr.uaa.alaska.edu](http://www.engr.uaa.alaska.edu)

### EE A203 Fundamentals of Electrical Engineering I 4 CR

Contact Hours: 3 + 3

Prerequisites: MATH A201.

Special Fees.

Introduces components, circuits and, methods of analysis of DC and AC electrical systems. Covers node voltage and mesh current techniques, operation amplifiers, RL/RC/RLC natural and step response, analysis of AC circuits with complex impedance and phasors, and AC Power.

### EE A204 Fundamentals of Electrical Engineering II 4 CR

Contact Hours: 3 + 3

Prerequisites: MATH A201 and EE A203.

Special Fees.

Special Note: Offered Fall Semesters.

Introduces electronic devices, their characteristics, uses, and limitations. Covers methods of analysis of circuits containing solid state devices including diodes, bipolar junction transistors, field effect transistors, and operational amplifiers. Covers design and operation of primitive digital devices including logic gates and analog/digital converters.

### EE A241 Computer Hardware Concepts 4 CR

Contact Hours: 3 + 3

Prerequisites: [CS A201 or CSE A205] and [MATH A107 or MATH A172].

Crosslisted with: CS A241.

Special Fees.

Analysis and design of electronic devices used as building blocks for construction of simple digital systems. Presents formats for data storage, number systems and alphanumeric codes, and methods of implementing logical and arithmetic operations within computers. Relates hardware components' capabilities and limitations to design requirements for computer processing, memory, and control functions.

### EE A306 Dynamics of Systems 3 CR

Contact Hours: 3 + 0

Prerequisites: [EE A203 or ES A309] and [ES A208 or ES A210] and MATH A302.

Crosslisted with: ME A306.

Modeling of mechanical, electrical, fluid and thermal elements and systems. Study of free and forced response by the Laplace transform, transfer function, and state space models. Time domain and frequency domain responses. Coupled systems, system analogy, sensing and actuation principles.

### EE A308 Instrumentation and Measurement 3 CR

Contact Hours: 2 + 3

Prerequisites: ES A309.

Crosslisted with: ME A308.

Instrumentation theory and concepts of digital and analog devices, transducers, data sensing transmission, recording, and display, instrumentation system, remote sensing, and hostile environmental conditions.

### EE A314 Electromagnetics 3 CR

Contact Hours: 3 + 0

Prerequisites: PHYS A212 and PHYS A212L and MATH A302.

Crosslisted with: PHYS A314.

Electromagnetic theory and applications. Static electric fields in free space and material media; steady current systems and associated magnetic effects. Includes magnetostatics, Maxwell's Equations, electromagnetic radiation, transmission lines and relativity.

### EE A314L Electromagnetics Laboratory I 1 CR

Contact Hours: 0 + 3

Corequisite: EE A314.

Laboratory experiments in transmission lines, impedances, bridges, scattering parameters, hybrids, and waveguides.

### EE A324 Electromagnetics II 3 CR

Contact Hours: 3 + 0

Prerequisites: [EE A314 or PHYS A314] and MATH A302.

Crosslisted with: PHYS A324.

Use of Maxwell's equations in analysis of plane wave propagation, wave reflection, radiation and antennas, waveguides, cavity resonators, transmission lines, and radio propagation.

### EE A324L Electromagnetics Laboratory II 1 CR

Contact Hours: 0 + 3

Corequisite: EE A324.

Laboratory experiments using Maxwell's equations in analysis of plane wave propagation, wave reflection, radiation and antennas, waveguides, cavity resonators, transmission lines, and radio propagation.

### EE A353 Circuit Theory 3 CR

Contact Hours: 3 + 0

Prerequisites: EE A203 and MATH A302.

Circuit analysis by application of Laplace transform, state variable, Fourier methods, and includes convolution, frequency selective networks, and two-port circuits.

### EE A353L Circuit Theory Lab 1 CR

Contact Hours: 0 + 3

Corequisite: EE A353.

Analysis of circuit behavior for passive and active filters. Application of Laplace and Fourier techniques to circuit characterization. This course serves as a laboratory component to EE A353.

### EE A354 Engineering Signal Analysis 3 CR

Contact Hours: 3 + 0

Prerequisites: EE A353 and MATH A302.

Analysis using discrete time signals and Fast Fourier Transform (FFT), random signals and noise, analog signals and Fourier transform. Application of probability theory and random variables to analog and discrete signals.

### EE A407 Power Distribution 3 CR

Contact Hours: 3 + 0

Prerequisites: EE A204 and EE A353.

Analysis of electrical power distribution and control systems, power flow control, symmetrical faults, power interruption, voltage variations, distributed generation, and economic dispatch with computer-aided analysis.

### EE A438 Design of Electrical Engineering Systems 3 CR

Contact Hours: 3 + 0

Registration Restrictions: Student must be in senior year of BSE degree program or obtain faculty permission. Completion of GER Tier 1 (Basic College-level Skills) courses.

Course Attributes: UAA GER Integrative Capstone.

Capstone course in which electrical engineering students design an electrical engineering component or system starting with the initial design specification to the implementation and testing. Students apply knowledge and skills learned in their undergraduate curriculum.

### EE A441 Integrated Circuit Design 3 CR

Contact Hours: 3 + 0

Prerequisites: CHEM A105 and EE A204 and EE A353.

Develops the design and fabrication of integrated circuits (ICs) used in computer electronics. Describes the material properties, methods of charge transport, energy exchanges, fundamentals of device fabrication, and fabrication process capabilities and limits. Electrical characteristics, timing considerations, heat and power considerations, and reliability of IC devices.

### EE A453 Introduction to Wi-Fi 1 CR

Contact Hours: 1 + 0

Prerequisites: EE A353.

Wi-Fi networks, relevant radio propagation fundamentals, design issues relevant to WLANs (wireless local area network), design techniques for Wi-Fi and useful design tools. Also includes automatic approaches that use radio resource management techniques including dynamic channel assignment, transmit power control and load sharing.



<b>EE A454</b>	<b>Systems Reliability Engineering</b>	<b>1 CR</b>
Contact Hours: 1 + 0 Prerequisites: EE A204 and ES A302 and MATH A302. Apply theoretical and practical concepts surrounding the field of system reliability theory. Topics include basic reliability concepts, failure models, qualitative analysis techniques, component importance, Markov processes, reliability of maintained systems, life data analysis and reliability data sources.		
<b>EE A456</b>	<b>Fiber Optic Communications</b>	<b>1 CR</b>
Contact Hours: 1 + 0 Prerequisites: EE A353. Apply theoretical and practical concepts surrounding the field of fiber optic communications. Topics include optical fibers, optical transmitters, optical receivers, system design, multichannel systems, optical amplifiers, and dispersion compensation.		
<b>EE A458</b>	<b>Antenna Theory</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: EE A324. Analysis of dipole, loop, aperture, reflector, and other antennas; array theory, radiation resistance, directivity, and input impedance of antennae.		
<b>EE A462</b>	<b>Communication Systems</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: EE A354. Develops the theory behind the design and operation of electronic communication systems. Includes the mathematical representation of signal and system components and their interaction. Covers power spectra, modulation techniques, frequency response of media and components, detection and recovery of information, and the effects of noise.		
<b>EE A465</b>	<b>Telecommunications</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: EE A354. Emphasis in data transmission, guided and wireless transmission, signal encoding, digital data, multiplexing, and circuit and packet switching. Analyze data communications, networking, protocols and standards.		
<b>EE A471</b>	<b>Automatic Control</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: [EE A306 or ME A306 or EE A353] and [ES A208 or ES A210] and MATH A302. Crosslisted with: ME A471. Feedback control of linear mechanical and electrical systems by using block diagrams with transfer functions of plants, controllers, sensors and actuators. Stability analysis with transfer-function and state-space models. Transient, steady-state analysis, frequency-domain analysis, and design of control systems with Bode plots and the Nyquist criterion.		

## EMT - Emergency Medical Technology

*Offered through the Community and Technical College  
Allied Health Sciences Building (AHS), Room 153, 786-6476  
[www.uaa.alaska.edu/ctc/programs/alliedhealth](http://www.uaa.alaska.edu/ctc/programs/alliedhealth)*

<b>EMT A110</b>	<b>Emergency Trauma Technician</b>	<b>3 CR</b>
Contact Hours: 2 + 2 Special Fees. Alaska State certified basic emergency medical course beyond advanced first aid. Emphasizes prevention, assessment, and care of injury and illness commonly encountered in both urban and rural settings.		
<b>EMT A130</b>	<b>Emergency Medical Technician I</b>	<b>6 CR</b>
Contact Hours: 4 + 4 Registration Restrictions: Provide evidence of CPR training at the professional provider level. Restriction may be waived with instructor approval. Special Fees. Special Note: Students must have the strength to be able to move victims, sufficient vision to assess condition of victims, and dexterity to perform the skills application procedures. Presents skills for proficiency in victim assessment, recognition, and treatment of medical emergencies and other basic life support procedures. May include practicum experience in hospitals, emergency rooms, or other sites. Provides the necessary training to become state or nationally registered as an EMT I, which is optional.		

<b>EMT A230</b>	<b>Emergency Medical Technician II</b>	<b>3 CR</b>
Contact Hours: 2 + 2 Prerequisites: EMT A130. Registration Restrictions: Must be certified as a State of Alaska EMT I or Nationally Registered EMT-Basic (comity is required). Current healthcare provider CPR card; Documentation of 10 patient contacts since becoming a certified EMT and a DHSS-approved sponsoring physician. Special Fees. Special Note: Students desiring Alaska certification must pass, within one year after completing the education program, the written and practical examination for Emergency Medical Technician II administered by Community Health and Emergency Medical Services (CHEMS). In order to obtain a State of Alaska EMT II certification, the student must obtain a CHEMS-approved physician sponsor. Provides the EMT I with added skills of advanced airway, specialized tourniquets, and intravenous treatment.		

<b>EMT A231</b>	<b>Emergency Medical Technician III</b>	<b>3 CR</b>
Contact Hours: 2 + 2 Prerequisites: EMT A130 and EMT A230. Registration Restrictions: Currently certified in Alaska as an EMT II, documented 10 patient contacts and 10 intravenous sticks. Special Fees. Special Note: Students desiring Alaska certification must pass, within one year after completing the education program, the written and practical examination for Emergency Medical Technician III administered by the Community Health and Emergency Medical Services (CHEMS). Emphasizes knowledge and skills necessary to apply electrodes and monitor cardiac activity, defibrillate life-threatening arrhythmias, and administer specific pharmacological agents.		

## ENGL - English

*Offered through the College of Arts and Sciences  
Administration/Humanities Building (ADM), Suite 101, 786-4355  
<http://english.uaa.alaska.edu>*

<b>ENGL A109</b>	<b>Introduction to Writing in Academic Contexts</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: PRPE A086 with minimum grade of C or [COMPASS E-Write (1-12 scale) with score of 08 and COMPASS Reading Skills with score of 75] or [Accuplacer-Reading Comp with score of 070 and Accuplacer-Sentence Skills with score of 080]. Registration Restrictions: Meet Prerequisite or appropriate score on English Placement Test. Special Fees. Preparation for ENGL A111 and alternative to PRPE A108. Introduces academic essay writing and technology skills in a computer classroom. Develops practical skills for writing and revising, including review of grammar and punctuation.		
<b>ENGL A111</b>	<b>Methods of Written Communication</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ENGL A109 with minimum grade of C or PRPE A108 with minimum grade of C or [COMPASS E-Write (1-12 scale) with score of 11 and COMPASS Reading Skills with score of 75] or [Accuplacer-Reading Comp with score of 085 and Accuplacer-Sentence Skills with score of 095] or SAT Critical Reading Score with score of 530 or SAT Verbal Score with score of 530 or Enhanced ACT English with score of 22 or Original ACT English with score of 22 or ACT English with score of 22 or SAT Verbal with score of 530. Registration Restrictions: Appropriate score on English Placement Test, SAT Verbal Section, or ACT English Test will waive the ENGL A109 or PRPE A108 prerequisite. Course Attributes: UAA GER Written Communication. Special Fees. Special Note: Offered Fall and Spring Semesters. Instruction in composition of expository essays with emphasis on different techniques for organization and development. Documented paper required. Readings in some sections may be coordinated with another discipline.		
<b>ENGL A120</b>	<b>Critical Thinking</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Introductory course emphasizing principles and techniques of critical thinking. Focuses on a variety of methods for analyzing written and visual arguments in a variety of media.		
<b>ENGL A121</b>	<b>Introduction to Literature</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Course Attributes: UAA GER Humanities Requirement. Course for non-majors. Introduction to analysis and appreciation of fiction, drama, and poetry. Emphasis on reading and discussion.		

## Course Descriptions

<b>ENGL A201</b>	<b>Masterpieces of World Literature I</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ENGL A111. Course Attributes: UAA GER Humanities Requirement. Introductory course for majors and non-majors. Emphasizes understanding literature, forming critical vocabulary, and developing critical judgment. Selected masterpieces from ancient times through the Renaissance.		
<b>ENGL A202</b>	<b>Masterpieces of World Literature II</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ENGL A111. Course Attributes: UAA GER Humanities Requirement. Introductory course for majors and non-majors. Emphasizes understanding literature, forming critical vocabulary, and developing critical judgment. Selected masterpieces from the Renaissance to the present.		
<b>ENGL A211</b>	<b>Academic Writing About Literature</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ENGL A111 with minimum grade of C or ENGL A1W with minimum grade of C or ENGL A2W with minimum grade of C or ENGL A3W with minimum grade of C or SAT Critical Reading Score with score of 620 or SAT Verbal Score with score of 620 or Enhanced ACT English with score of 30 or Original ACT English with score of 30. Course Attributes: UAA GER Written Communication. Instruction in writing based on close analysis of literature. Develops a broad range of expository writing skills. MLA research paper required.		
<b>ENGL A212</b>	<b>Technical Writing</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ENGL A111 with minimum grade of C or ENGL A1W with minimum grade of C or ENGL A2W with minimum grade of C or ENGL A3W with minimum grade of C or SAT Critical Reading Score with score of 620 or SAT Verbal Score with score of 620 or Enhanced ACT English with score of 30 or Original ACT English with score of 30. Registration Restrictions: If prerequisite is not satisfied, appropriate SAT, ACT, or AP score or approved UAA placement test required. Course Attributes: UAA GER Written Communication. Special Fees. Instruction in basic communicative purposes, forms, styles, and visual elements commonly used by professionals who write and edit technical documents. Provides experience in writing and editing in a collaborative environment. Requires a research report and APA documentation style.		
<b>ENGL A213</b>	<b>Writing in the Social and Natural Sciences</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ENGL A111 with minimum grade of C or ENGL A1W with minimum grade of C or ENGL A2W with minimum grade of C or ENGL A3W with minimum grade of C or SAT Critical Reading Score with score of 620 or SAT Verbal Score with score of 620 or Enhanced ACT English with score of 30 or Original ACT English with score of 30. Course Attributes: UAA GER Written Communication. Special Fees. Instruction in academic writing based on close analysis of readings in various disciplines, primarily the social and natural sciences. Develops a broad range of expository writing skills, including composition of the empirical report. APA research paper required.		
<b>ENGL A214</b>	<b>Persuasive Writing</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ENGL A111 with minimum grade of C or ENGL A1W with minimum grade of C or ENGL A2W with minimum grade of C or ENGL A3W with minimum grade of C or SAT Critical Reading Score with score of 620 or SAT Verbal Score with score of 620 or Enhanced ACT English with score of 30 or Original ACT English with score of 30. Course Attributes: UAA GER Written Communication. Special Fees. Special Note: Offered Fall and Spring Semesters. Instruction in writing based on theories of persuasion and argument practiced in disciplines across the curriculum. Focuses on the rhetorical issues of audience, invention, evidence, and style. Develops a broad range of analytical, descriptive, and persuasive skills, with special attention to their application in a variety of academic environments. Research-supported papers required. Selection of readings may be coordinated with another discipline.		
<b>ENGL A301</b>	<b>Literature of Britain I</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ENGL A211 with minimum grade of C or ENGL A212 with minimum grade of C or ENGL A213 with minimum grade of C or ENGL A214 with minimum grade of C. Course Attributes: UAA GER Humanities Requirement. Study of significant writers of Britain from Anglo-Saxon times to the Restoration.		

<b>ENGL A302</b>	<b>Literature of Britain II</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ENGL A211 with minimum grade of C or ENGL A212 with minimum grade of C or ENGL A213 with minimum grade of C or ENGL A214 with minimum grade of C. Course Attributes: UAA GER Humanities Requirement. Study of significant writers of Britain from the Restoration to the present.		
<b>ENGL A305</b>	<b>National Literatures in English</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ENGL A211 with minimum grade of C or ENGL A212 with minimum grade of C or ENGL A213 with minimum grade of C or ENGL A214 with minimum grade of C. Course Attributes: UAA GER Humanities Requirement. Special Note: Applies once toward national literatures requirements for English majors; may be repeated once for elective credit with a change of subtitle. ENGL A201 and A202 recommended. Study of selected national literatures composed in English, excluding the literature of England and the United States. Each offering examines the literature of a particular "nation"--a group of people or peoples united by multiple factors such as common descent, language, culture, government, history, geographical location--in which publication is largely in the English language. Examples include literature of Canada, Ireland, Scotland, Australia, New Zealand, Nigeria, or the Caribbean. The selected focus of each course offering is identified in the subtitle.		
<b>ENGL A306</b>	<b>Literature of the United States I</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ENGL A211 with minimum grade of C or ENGL A212 with minimum grade of C or ENGL A213 with minimum grade of C or ENGL A214 with minimum grade of C. Course Attributes: UAA GER Humanities Requirement. Study of significant writers of the United States focusing primarily on the 19th century and including literature that reflects important cultural, historical, political, and aesthetic forces.		
<b>ENGL A307</b>	<b>Literature of the United States II</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ENGL A211 with minimum grade of C or ENGL A212 with minimum grade of C or ENGL A213 with minimum grade of C or ENGL A214 with minimum grade of C. Course Attributes: UAA GER Humanities Requirement. Study of significant writers of the United States focusing primarily on the 20th century and including literature that reflects important cultural, historical, political, and aesthetic forces.		
<b>ENGL A309</b>	<b>Texts of American Subcultures and Regions</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: [ENGL A211 with minimum grade of C or ENGL A212 with minimum grade of C or ENGL A213 with minimum grade of C or ENGL A214 with minimum grade of C]. Special Note: May be repeated once for credit with a change in the subtitle. Intensive study of the texts of an American subculture or region from the beginnings to the present day, with emphasis on major figures within their historical context.		
<b>ENGL A310</b>	<b>Ancient Literature</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ENGL A211 with minimum grade of C or ENGL A212 with minimum grade of C or ENGL A213 with minimum grade of C or ENGL A214 with minimum grade of C. Course Attributes: UAA GER Humanities Requirement. Selected Biblical texts and Classical Western and ancient Asian literature in English translations.		
<b>ENGL A311</b>	<b>Advanced Composition</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ENGL A211 with minimum grade of C or ENGL A212 with minimum grade of C or ENGL A213 with minimum grade of C or ENGL A214 with minimum grade of C. Course Attributes: UAA GER Written Communication. Special Fees. Advanced instruction in composing and revising, with focus on inventional strategies, and audience, persuasion, and style.		
<b>ENGL A312</b>	<b>Advanced Technical Writing</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ENGL A211 with minimum grade of C or ENGL A212 with minimum grade of C or ENGL A213 with minimum grade of C. Registration Restrictions: ENGL A212 recommended. Course Attributes: UAA GER Written Communication. Special Fees. Special Note: Offered Fall and Spring Semesters. Instruction in principles of textual and visual design in order to understand, analyze, evaluate, and design effective technical communication. Practice in standard editing for both print and online documents.		

<b>ENGL A313</b>	<b>Professional Writing</b>	<b>3 CR</b>	<b>ENGL A383</b>	<b>Film Interpretation</b>	<b>3 CR</b>
Contact Hours: 3 + 0			Contact Hours: 3 + 0		
Prerequisites: ENGL A211 with minimum grade of C or ENGL A212 with minimum grade of C or ENGL A213 with minimum grade of C or ENGL A214 with minimum grade of C.			Prerequisites: ENGL A211 or ENGL A212 or ENGL A213 or ENGL A214.		
Special Fees.			Course Attributes: UAA GER Humanities Requirement.		
Special Note: May include special fees if delivered in a computerized classroom.			Special Fees.		
Instruction in writing for a profession, focusing on the various genres and on the technological, cultural, and social aspects of a selected profession.			An intensive study of the forms and techniques used in film. Includes an introduction to film theory and criticism.		
Concentration on acquiring workplace literacy through analysis and composition of workplace genres, through mastery of relevant technologies (e.g., web-development software, word processing software, spreadsheet software), and through analysis of worksites.					
<b>ENGL A315</b>	<b>Survey of Medieval Literature</b>	<b>3 CR</b>	<b>ENGL A391</b>	<b>Genres of Subject and Theme</b>	<b>3 CR</b>
Contact Hours: 3 + 0			Contact Hours: 3 + 0		
Prerequisites: ENGL A201 with minimum grade of C and ENGL A202 with minimum grade of C.			Prerequisites: [ENGL A211 with minimum grade of C or ENGL A212 with minimum grade of C or ENGL A213 with minimum grade of C or ENGL A214 with minimum grade of C].		
Registration Restrictions: Upper-division standing recommended.			Special Note: Applies once toward the genre requirement for literature track in the English major. May be repeated once for elective credit with a change of subtitle.		
A selective survey of primarily Western literature from the fifth century through the fifteenth. Representative authors and genres.			Study of genre defined in terms of subject or theme rather than form.		
<b>ENGL A320</b>	<b>Renaissance Literature</b>	<b>3 CR</b>	Examples include captivity narrative, utopian literature, science fiction, adolescent literature.		
Contact Hours: 3 + 0					
Prerequisites: ENGL A201 with minimum grade of C and ENGL A202 with minimum grade of C.			<b>ENGL A403</b>	<b>Topics in Autobiography</b>	<b>3 CR</b>
A selective survey of Western literature from the fifteenth century through the middle of the seventeenth. Representative authors and genres.			Contact Hours: 3 + 0		
<b>ENGL A325</b>	<b>Neoclassical Literature</b>	<b>3 CR</b>	Prerequisites: ENGL A211 with minimum grade of C or ENGL A212 with minimum grade of C or ENGL A213 with minimum grade of C or ENGL A214 with minimum grade of C.		
Contact Hours: 3 + 0			Special Note: Applies once toward the Specialized Studies requirement for English literature majors; may be repeated once with a change of subtitle for elective credit.		
Prerequisites: ENGL A201 and ENGL A202.			Study of autobiography and the techniques used and issues raised in this form, with readings focused on a selected theme. Practice in writing autobiography.		
A selective survey of primarily British literature of the period 1660-1798.			<b>ENGL A404</b>	<b>Topics in Women's Literature</b>	<b>3 CR</b>
<b>ENGL A330</b>	<b>Literature of Romanticism</b>	<b>3 CR</b>	Contact Hours: 3 + 0		
Contact Hours: 3 + 0			Prerequisites: ENGL A211 with minimum grade of C or ENGL A212 with minimum grade of C or ENGL A213 with minimum grade of C or ENGL A214 with minimum grade of C.		
Prerequisites: ENGL A201 and ENGL A202.			Study of particular topics in literature by women writers.		
A study of the Romantic movements from late eighteenth century to mid-nineteenth century.			<b>ENGL A414</b>	<b>Research Writing</b>	<b>3 CR</b>
<b>ENGL A340</b>	<b>The Victorian Period</b>	<b>3 CR</b>	Contact Hours: 3 + 0		
Contact Hours: 3 + 0			Prerequisites: ENGL A211 with minimum grade of C or ENGL A212 with minimum grade of C or ENGL A213 with minimum grade of C or ENGL A214 with minimum grade of C.		
Prerequisites: [ENGL A201 with minimum grade of C or ENGL A202 with minimum grade of C].			Course Attributes: UAA GER Written Communication.		
A multi-genre survey of selected literature of the Victorian period with special attention paid to historical and cultural contexts.			A guided deep revision of a research paper from a student's home discipline, adapted to a specific scholarly or professional audience. Concentration on audience, method, argument, evidence, and style.		
<b>ENGL A343</b>	<b>Modern and Contemporary Literature</b>	<b>3 CR</b>	<b>ENGL A424</b>	<b>Shakespeare</b>	<b>3 CR</b>
Contact Hours: 3 + 0			Contact Hours: 3 + 0		
Prerequisites: ENGL A201 or ENGL A202 or ENGL A211.			Prerequisites: ENGL A201 with minimum grade of C and ENGL A202 with minimum grade of C.		
Study of representative literary works from the twentieth and twenty-first centuries. Includes selections from U.S. and international literatures.			Major works and a survey of Shakespearean criticism. Plays covered vary from semester to semester.		
<b>ENGL A351</b>	<b>Poetry</b>	<b>3 CR</b>	<b>ENGL A429</b>	<b>Major Authors</b>	<b>3 CR</b>
Contact Hours: 3 + 0			Contact Hours: 3 + 0		
Prerequisites: ENGL A201 and ENGL A202.			Prerequisites: [ENGL A201 with minimum grade of C or ENGL A202 with minimum grade of C or LING A101 with minimum grade of C or LING A201 with minimum grade of C] and [ENGL A211 with minimum grade of C or ENGL A212 with minimum grade of C or ENGL A213 with minimum grade of C or ENGL A214 with minimum grade of C].		
An intensive study of the forms and techniques used by poets.			Special Note: May be repeated once for credit with a change of subtitle.		
<b>ENGL A361</b>	<b>The Novel</b>	<b>3 CR</b>	Intensive cross-disciplinary study of a single writer or of a small connected movement among writers.		
Contact Hours: 3 + 0			<b>ENGL A434</b>	<b>History of Rhetoric</b>	<b>3 CR</b>
Prerequisites: ENGL A201 or ENGL A202 or ENGL A211.			Contact Hours: 3 + 0		
Intensive study of the forms and techniques used by novelists within the framework of a historically developing genre.			Prerequisites: [ENGL A211 or ENGL A212 or ENGL A213 or ENGL A214] and HIST A101 and HIST A102.		
<b>ENGL A363</b>	<b>Short Story</b>	<b>3 CR</b>	Registration Restrictions: Completion of GER Tier 1 (basic college-level skills) courses and junior standing.		
Contact Hours: 3 + 0			Course Attributes: UAA GER Integrative Capstone.		
Prerequisites: ENGL A201 and ENGL A202.			Study of significant western rhetorical theories and practices from ancient Greece to contemporary culture. Emphasis on the evolution of rhetorical knowledge and on the historical relationships between rhetoric and culture.		
An examination of the development of the short story as a separate genre and an intensive study of the techniques used by writers in this form.			<b>ENGL A435</b>	<b>History of Criticism</b>	<b>3 CR</b>
<b>ENGL A371</b>	<b>Narrative Nonfiction</b>	<b>3 CR</b>	Contact Hours: 3 + 0		
Contact Hours: 3 + 0			Prerequisites: ENGL A201 and ENGL A202.		
Prerequisites: [ENGL A121 or ENGL A201 or ENGL A202] and [ENGL A211 with minimum grade of C or ENGL A212 with minimum grade of C or ENGL A213 with minimum grade of C or ENGL A214 with minimum grade of C].			Critical theory from its classical origins to the present.		
A study of the exemplars of narrative nonfiction such as collected correspondence, essay, memoir, biography, autobiography, journal, new journalism, travel narrative, science and nature writing, jeremiad, weblog. These may be drawn from a variety of historical contexts.					
<b>ENGL A381</b>	<b>Drama</b>	<b>3 CR</b>			
Contact Hours: 3 + 0					
Prerequisites: ENGL A201 with minimum grade of C and ENGL A202 with minimum grade of C.					
An intensive study of the forms and techniques used by dramatists, including significant criticism from Aristotle to the present.					

## Course Descriptions

<b>ENGL A440</b>	<b>Topics in Comparative Literature</b>	<b>3 CR</b>	<b>ENGL A491</b>	<b>Topics in Composition and Rhetoric</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ENGL A201 or ENGL A202. Special Note: May be repeated once for degree credit with a change of subtitle. Comparative analysis of selected texts from modern and contemporary international literatures. Includes readings in poetics and literary history.			Contact Hours: 3 + 0 Prerequisites: ENGL A211 with minimum grade of C or ENGL A212 with minimum grade of C or ENGL A213 with minimum grade of C. Special Note: Applies once toward Rhetoric and Language theory requirement for Rhetoric Option; may be repeated once with a change of subtitle for elective credit. Offered Fall Semesters. Study of composition and rhetoric as an academic field with a focus on theories, issues, perspectives, and activities around which the field organizes itself. Examples include the study of Composition Theory and Pedagogy, Computers and Teaching Composition, and Origins of Rhetoric.		
<b>ENGL A444</b>	<b>Topics in Native Literatures</b>	<b>3 CR</b>	<b>ENGL A495</b>	<b>Internship in Professional Writing</b>	<b>1-6 CR</b>
Contact Hours: 3 + 0 Prerequisites: ENGL A211 with minimum grade of C or ENGL A212 with minimum grade of C or ENGL A213 with minimum grade of C or ENGL A214 with minimum grade of C. Special Note: Applies once towards requirement for English majors; may be repeated once for elective credit with a change of subtitle. In-depth studies of particular topics in Native literatures. Primary emphasis on American Indian and Alaska Native literatures, but topics may sometimes focus upon other indigenous world literatures.			Contact Hours: 0 + 3-18 Prerequisites: ENGL A211 with minimum grade of B or ENGL A212 with minimum grade of B or ENGL A213 with minimum grade of B or ENGL A214 with minimum grade of B. Registration Restrictions: Faculty permission required. Special Note: May be repeated for up to 6 credits with change in setting and/or responsibilities or change in venue. Advanced application of writing skills in a professional setting.		
<b>ENGL A445</b>	<b>Alaska Native Literatures</b>	<b>3 CR</b>	<b>ENGL A499</b>	<b>English Honors Thesis</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ENGL A211 with minimum grade of C or ENGL A212 with minimum grade of C or ENGL A213 with minimum grade of C or ENGL A214 with minimum grade of C. Course Attributes: UAA GER Humanities Requirement. Study of traditional, historical stories and contemporary texts written in English by Alaska Natives.			Contact Hours: 0 + 9 Registration Restrictions: Completion of six credits of 400-level topics courses w/ grade of A (ENGL A403, A404, A429, A440, A444, A490, A491). Individual in-depth study of a selected topic, resulting in a thesis.		
<b>ENGL A450</b>	<b>Linguistics and English Language Teaching</b>	<b>3 CR</b>	<b>ENGL A602</b>	<b>Contemporary Literary Theory</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: LING A101 with minimum grade of C. A survey of linguistic principles and methods for teachers of English, ESL, and literacy. Addresses English language structure and variation in both spoken and written contexts. Emphasis on developing practical teaching techniques.			Contact Hours: 3 + 0 Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Graduate standing. Overview of major types of literary theory currently practiced in American research universities. Examines their specific role in shaping English departments and programs and their particular function in defining literary studies.		
<b>ENGL A475</b>	<b>Modern Grammar</b>	<b>3 CR</b>	<b>ENGL A603</b>	<b>Issues in Rhetoric and Composition</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: LING A201 with minimum grade of C. Special Note: Recommended for students in the Education Option for the English Major. An inductive linguistic analysis of English emphasizing transformational grammar.			Contact Hours: 3 + 0 Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Graduate standing. Advanced study of issues in the disciplines of rhetoric and composition framed in a historical perspective. Readings will include theoretical, performative, critical, research, and/or multimedia texts.		
<b>ENGL A476</b>	<b>History of English Language</b>	<b>3 CR</b>	<b>ENGL A610</b>	<b>Studies in Literary Periods and Movements</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: [ENGL A121 or ENGL A201 or ENGL A202] and LING A101. Investigates origins, development, and variation of the English language from linguistic, social, literary, and technological perspectives. Connects history and variation in English to contemporary issues about language.			Contact Hours: 3 + 0 Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Graduate standing. Special Note: May be repeated once for degree credit with a change of subtitle. Advanced study of selected topics within particular literary periods and/or movements.		
<b>ENGL A478</b>	<b>Public Science Writing</b>	<b>3 CR</b>	<b>ENGL A611</b>	<b>Studies in Genre</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ENGL A211 with minimum grade of C or ENGL A212 with minimum grade of C or ENGL A213 with minimum grade of C or ENGL A214 with minimum grade of C. Registration Restrictions: Completion of GER Tier 1 (basic college-level skills), junior standing, and 4 credits of Natural Science GER, including one lab credit. Course Attributes: UAA GER Integrative Capstone. Focuses on rhetorical issues at the intersections of discourse, science, and citizenry, issues involving citizens' understanding, awareness, and participation in science-based public policy. Traces historical efforts to define and develop scientific literacy and concentrates on the increasing dialogue and debate among scientists, the public, and policymakers.			Contact Hours: 3 + 0 Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Graduate standing. Special Note: May be repeated once for degree credit with a change of subtitle. With specific subtitles for each offering, the course focuses on issues of genre--for example, poetry, fiction, drama, narrative nonfiction, oratory--in the study of literary and rhetorical texts.		
<b>ENGL A487</b>	<b>Standard Written English</b>	<b>3 CR</b>	<b>ENGL A612</b>	<b>Studies in English Linguistics</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: LING A201 with minimum grade of C. Analysis of English emphasizing traditional grammar, standard usage, and rhetoric.			Contact Hours: 3 + 0 Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Graduate standing. Special Note: May be repeated once for degree credit with a change of subtitle. Advanced study of particular topics, trends, and issues in linguistics of the English language.		
<b>ENGL A490</b>	<b>Topics in Language and Literature</b>	<b>1-3 CR</b>	<b>ENGL A613</b>	<b>Studies in Rhetoric and Composition</b>	<b>3 CR</b>
Contact Hours: 1-3 + 0 Prerequisites: ENGL A201 or ENGL A202. Registration Restrictions: For courses with a linguistics topic, LING A101 prerequisite required. Special Note: May be repeated for a maximum of 6 credits with a change of subtitle. Current topics in English literature, composition, rhetoric, or linguistics, arising from special circumstances of demand or faculty expertise.			Contact Hours: 3 + 0 Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Graduate standing. Special Note: May be repeated once for degree credit with a change of subtitle. An investigation into significant historical and/or contemporary developments in rhetorical theory and practice, which may also include composition, literacy studies, or linguistics.		
			<b>ENGL A636</b>	<b>Studies in Contemporary Theory</b>	<b>3 CR</b>
			Contact Hours: 3 + 0 Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Graduate standing. Special Note: May be repeated once for degree credit with a change of subtitle. Advanced study of key thinkers, major schools, or central topics in contemporary literary, rhetorical, or linguistic theory and practice.		

<b>ENGL A676</b>	<b>Studies in Texts and Cultures</b>	<b>3 CR</b>
Contact Hours: 3 + 0		
Level Restriction: Must be Graduate - UAA level.		
Registration Restrictions: Graduate standing.		
Special Note: May be repeated once for degree credit with a change of subtitle.		
Advanced study of relationships between cultural forces and the production, reception, and interpretation of texts. Focuses on both theory and analysis of selected texts.		
<b>ENGL A687</b>	<b>Composition Theory and Practice</b>	<b>3 CR</b>
Contact Hours: 3 + 0		
Level Restriction: Must be Graduate - UAA level.		
Registration Restrictions: Graduate standing.		
Special Note: Required core course for Teaching Assistants.		
Study of theories and methods of teaching composition. Includes introduction to concepts underlying different approaches to composition, applications to practical pedagogy, and contemporary rhetorical issues.		
<b>ENGL A689</b>	<b>Advanced Research and Professional Practices</b>	<b>3 CR</b>
Contact Hours: 3 + 0		
Prerequisites: ENGL A602 or ENGL A603.		
Major Restriction: Must be English major.		
Level Restriction: Must be Graduate - UAA level.		
Registration Restrictions: Formal admission to MA in English; permission of graduate advisor.		
Advanced practicum in academic research, disciplinary writing, and professional practices. Students evaluate disciplinary journals, research the state of an academic question, trace the history of discussion of a specific argument, compile an annotated bibliography, analyze disciplinary arguments, practice appropriate academic style, and develop a thesis proposal.		
<b>ENGL A698</b>	<b>Individual Research</b>	<b>1-6 CR</b>
Contact Hours: 1-6 + 0		
Level Restriction: Must be Graduate - UAA level.		
Registration Restrictions: Graduate standing and faculty permission.		
Students work individually with faculty mentors to research a topic of the students' choice, generally in preparation for the MA thesis.		
<b>ENGL A699</b>	<b>Thesis</b>	<b>1-6 CR</b>
Contact Hours: 1-6 + 0		
Prerequisites: ENGL A689 with minimum grade of B.		
Level Restriction: Must be Graduate - UAA level.		
Registration Restrictions: Graduate standing, faculty permission, and an approved thesis proposal.		
Students work individually with a faculty mentor to research and write the master's thesis, a thoroughly researched and carefully argued article-length work that demonstrates the student's academic achievement and is suitable for academic presentation.		

## ENGR - Engineering

*Offered through the School of Engineering*

*Engineering Building (ENGR), Room 201, 786-1900*

*[www.engr.uaa.alaska.edu](http://www.engr.uaa.alaska.edu)*

<b>ENGR A105A</b>	<b>Engineering Computer-Aided Design I</b>	<b>1 CR</b>
Contact Hours: 1 + 3		
Applied engineering design course focusing on engineering graphics concepts using applied Computer-Aided Design (CAD) tools. Orthographic projections, auxiliary views, sectional views, and layer management are explored and implemented in assigned engineering design projects. Part I of a three part series.		
<b>ENGR A105B</b>	<b>Engineering Computer-Aided Design II</b>	<b>1 CR</b>
Contact Hours: 1 + 3		
Prerequisites: ENGR A105A.		
Applied engineering design course focusing on engineering graphics concepts using applied Computer-Aided Design (CAD) tools. Object snaps, engineering drawing editing, blocks and external references, multi viewports and views, object linking and embedding, raster image manipulation, and basic 3-D modeling are explored and implemented in assigned engineering design projects. Part II of a three part series.		
<b>ENGR A105C</b>	<b>Engineering Computer-Aided Design III</b>	<b>1 CR</b>
Contact Hours: 1 + 3		
Prerequisites: ENGR A105B.		
Applied engineering design course focusing on engineering graphics concepts using applied Computer-Aided Design (CAD) tools. Surfaces, featured based modeling, solid editing, extraction of orthographic, auxiliary and section views from a 3-D model, printing and plotting are explored and implemented in assigned engineering design projects. Part III of a three part series.		

<b>ENGR A151</b>	<b>Engineering Practices I</b>	<b>3 CR</b>
Contact Hours: 3 + 0		
Prerequisites: [MATH A107 and MATH A108] or MATH A109.		
Provides an overview of the engineering profession and the fundamental tools for practicing engineering. Presents the basic skills required of engineers including an introduction to engineering mathematics, spreadsheets, analytical problem solving, word processing, communication, presentations, descriptive geometry, and computer graphics.		
<b>ENGR A161</b>	<b>Engineering Practices II</b>	<b>3 CR</b>
Contact Hours: 3 + 0		
Prerequisites: [MATH A107 and MATH A108] or MATH A109.		
Presents the basic skills required of engineers for using computers to solve engineering problems and presenting results in a professional form. Application of computation methods and tools for practicing engineering. Introduction to computer programming and engineering problem solving softwares including visual basic in spreadsheets, Matlab, and Mathcad.		
<b>ENGR A192</b>	<b>Engineering Seminar I</b>	<b>1 CR</b>
Contact Hours: 1 + 0		
May be stacked with: ENGR A292.		
Exploration of engineering design with presentations given by student interns, faculty, and leaders of industry about the engineering design as well as other aspects of engineering such as marketing, behavioral issues, and socio-economical issues facing today's engineer.		
<b>ENGR A251</b>	<b>Engineering Practices III</b>	<b>3 CR</b>
Contact Hours: 3 + 0		
Prerequisites: ENGR A151 and ENGR A161 and MATH A200.		
Application of analytical and computational methods for solving engineering problems. Experimental problems will be solved and projects presented in technical reports.		
<b>ENGR A292</b>	<b>Engineering Seminar II</b>	<b>1 CR</b>
Contact Hours: 1 + 0		
Prerequisites: ENGR A192.		
Registration Restrictions: Sophomore standing or instructor permission.		
May be stacked with: ENGR A192.		
Exploration of engineering design with presentations given by student interns, faculty, and leaders of industry about the engineering design as well as other aspects of engineering such as marketing, behavioral issues, and socio-economical issues facing today's engineer.		
<b>ENGR A495</b>	<b>Engineering Internship</b>	<b>1 CR</b>
Contact Hours: 0 + 3		
Registration Restrictions: Instructor permission.		
Professional work experience designed to provide students with the opportunity to investigate the practical applications of engineering design within engineering organizations. Assignments and projects arranged with cooperating organizations and agencies.		

## ENVI - Environmental Studies

*Offered through the College of Arts and Sciences*

*Beatrice McDonald Hall (BMH), Room 213, 786-6049*

*[www.uaa.alaska.edu/ges](http://www.uaa.alaska.edu/ges)*

<b>ENVI A211</b>	<b>Environmental Science: Systems and Processes</b>	<b>3 CR</b>
Contact Hours: 3 + 0		
Prerequisites: ENGL A111 and [MATH A105 or MATH A107 or MATH A108 or MATH A109 or MATH A172 or MATH A200 or MATH A272].		
Course Attributes: UAA GER Natural Sciences Requirement.		
Introduces science as a powerful tool for understanding and solving environmental problems. The Earth is discussed as a system with feedbacks and inter-relationships. These include natural systems, cycles and flows and natural and human induced changes in these systems. Topics include: basic ecology, climate change, resources and resource stress (air, water, oceans, soils), natural hazards. Uses Alaskan, Arctic and other regional examples.		
<b>ENVI A211L</b>	<b>Environmental Science: Systems and Processes Laboratory</b>	<b>1 CR</b>
Contact Hours: 0 + 3		
Prerequisites: ENGL A111 and [MATH A105 or MATH A107 or MATH A108 or MATH A109 or MATH A172 or MATH A200 or MATH A272].		
Course Attributes: UAA GER Natural Sciences Lab Only.		
Special Fees.		
Laboratory introducing students to the systematic acquisition of data and its analysis and interpretation in a manner consistent with the disciplines of environmental studies. This includes field and classroom experiences and the use of remotely sensed data and geographic information systems in interpretation, analysis and presentation. In complement to ENVI A211, themes include: scientific method, map use, environmental problems at multiple scales, climate, resources and resource stress (air, water, oceans and soils), and natural hazards.		

## Course Descriptions

### ENVI A212 Living on Earth: People and the Environment 3 CR

Contact Hours: 3 + 0

Prerequisites: ENVI A211.

Course Attributes: UAA GER Social Sciences Requirement.

Study of the relationship between people and their environment. Considers environmental problems and potential solutions. Examines the ecological impacts of social systems and policy as well as of our personal choices as citizens and consumers.

### ENVI A303 Environmental Ethics 3 CR

Contact Hours: 3 + 0

Crosslisted with: PHIL A303.

Historical and comparative analysis of Western, non-Western, indigenous and Native American philosophies, concerning the intrinsic, aesthetic and use values of nature and the land. Contemporary environmental ethics, including deep ecology, the land ethic, ecofeminism, and animal rights theories will be examined in detail. There will also be a focus on the ethical issues surrounding contemporary environmental controversies, such as land management, wildlife management, wilderness designation, sustainability, biodiversity and species preservation, private property and public commons, environmental racism, human overpopulation, development versus preservation, laboratory use of animals, vivisection, animal farming, subsistence, and sports hunting.

### ENVI A470 Environmental Planning and Problem Solving 4 CR

Contact Hours: 2 + 6

Prerequisites: COMM A241 and [ENGL A212 or ENGL A213] and ENVI A211 and ENVI A211L and ENVI A212 and [STAT A252 or STAT A253].

Course Attributes: UAA GER Integrative Capstone.

Examination of methodological concepts and issues in environmental planning and problem-solving. Includes the content and structure of Environmental Impact Assessment (EIA); approaches to EIA with reference to the assessment of impacts on biophysical and social systems. Involves substantial practical work, including hands-on exercises, writing, and oral presentations.

### ENVI A490 Topics in Environment and Society 3 CR

Contact Hours: 3 + 0

Prerequisites: ENVI A211 or ENVI A212.

Special Note: May be repeated twice with change of subtitle.

A seminar focusing on approaches and practices for addressing social concerns related to environmental problems.

## ES - Engineering Science

*Offered through the School of Engineering*

*Engineering Building (ENGR), Room 201, 786-1900*

*[www.engr.uaa.alaska.edu](http://www.engr.uaa.alaska.edu)*

### ES A103 Engineering Graphics 3 CR

Contact Hours: 1 + 6

Registration Restrictions: Open only to students who have been accepted into the undergraduate engineering program.

Corequisite: ES A103L.

Introduction to use of AutoCAD as a tool for engineering graphics. Orthographic projections, auxiliary views, sectional views, dimensioning. Development of detail and working drawings. Three-dimensional modeling. One moderate scale design project required.

### ES A208 Engineering Mechanics 4 CR

Contact Hours: 3 + 3

Prerequisites: ENGR A151 and MATH A201.

Application of statics and dynamics for solving engineering type problems. Application of vector quantities, equilibrium including friction forces, moments of inertia, and the kinetics and kinematics of particles and rigid bodies.

### ES A209 Engineering Statics 3 CR

Contact Hours: 3 + 0

Prerequisites: MATH A201 with minimum grade of C and PHYS A211 with minimum grade of C and PHYS A211L with minimum grade of C.

Principles and analysis of static force systems, equilibrium, distributed forces, centroids, centers of gravity, moments of inertia, structures, friction, and virtual work.

### ES A210 Engineering Dynamics 3 CR

Contact Hours: 3 + 0

Prerequisites: ES A209 with minimum grade of C.

Kinematics and kinetics of particles and rigid bodies with applications of Newton's second law and principles of work-energy, impulse-momentum, and vibration.

### ES A302 Engineering Data Analysis 3 CR

Contact Hours: 3 + 0

Prerequisites: MATH A201.

Analytical and spreadsheet methods appropriate to the solution of engineering problems using the concepts from probability and statistics.

### ES A309 Elements of Electrical Engineering 3 CR

Contact Hours: 3 + 0

Prerequisites: PHYS A212 and (MATH A302 or concurrent enrollment).

Electrical fundamentals: elementary circuit analysis, network theorems, steady state, and transient analysis of DC circuits with resistors and one energy storage device (L or C). Steady state analysis of AC circuits with resistors, capacitors, and inductors using complex number and phasor representation. Power in DC and AC circuits. Transformers, meters, and applications of simple electrical components and circuits.

### ES A331 Mechanics of Materials 3 CR

Contact Hours: 3 + 0

Prerequisites: ES A209 with minimum grade of C and (MATH A302 with minimum grade of C or concurrent enrollment).

Stress-strain relations, axially loaded and torsional members, review of shear and bending moment diagrams for beams, flexural and shearing stresses, deflections of beams, plane stress, combined stresses, buckling of columns, elementary design of beams and columns.

### ES A341 Fluid Mechanics 3 CR

Contact Hours: 3 + 0

Prerequisites: ES A302 with minimum grade of C and MATH A201 with minimum grade of C and PHYS A211 with minimum grade of C and PHYS A211L with minimum grade of C.

Special Fees.

Introduction to physical properties and behavior of fluids. Topics include hydrostatics and dynamics of liquids and gases, dimensional analysis, fluid forces on immersed bodies, pipe flow, fluid machinery, and open channel flow.

### ES A341L Fluid Mechanics Laboratory 1 CR

Contact Hours: 0 + 3

Prerequisites: (ES A341 with minimum grade of C or concurrent enrollment).

Special Fees.

Provides supplemental explanation and practical exercises applying physical properties and behavior of fluids, including hydrostatics, fluid forces, pipe flow, fluid machinery, and open channel flow.

### ES A346 Basic Thermodynamics 3 CR

Contact Hours: 3 + 0

Prerequisites: MATH A201 and [PHYS A211 or CHEM A106].

Thermodynamics systems, properties, processes, and cycles. Fundamental principles of thermodynamics (first and second laws), and elementary applications.

### ES A411 Northern Design 3 CR

Contact Hours: 3 + 0

Registration Restrictions: Senior standing or graduate standing in an accredited program in architecture or engineering, or instructor permission.

Introduction to design and maintenance of facilities in northern climates to construct sustainable, energy-efficient and durable buildings and infrastructure suitable for the unique needs of northern inhabitants.

## ESL - English as a Second Language

*Offered through the Community and Technical College*

*Beatrice McDonald Hall (BMH), Room 121, 786-6856*

*[www.uaa.alaska.edu/ctc/programs/cpds](http://www.uaa.alaska.edu/ctc/programs/cpds)*

### ESL A066 ESL Through Newspapers 1-4 CR

Contact Hours: 1-4 + 0

Special Fees.

Special Note: May be taken for up to 4 credits in one semester and for up to 12 credits altogether.

For ESL students of varied skill levels. Using newspapers to practice listening, speaking, reading, writing, and other skills. Some individual instruction.

### ESL A103 Oral Fluency I 3 CR

Contact Hours: 3 + 0

Registration Restrictions: Appropriate score on TOEFL/TSE or interview with ESL director.

Special Fees.

Special Note: Required language lab work.

For intermediate to advanced students. Instruction in pronunciation, listening comprehension, and speaking strategies for academic and career settings. Emphasis on self-monitoring. Includes special practice in group discussion techniques.

<b>ESL A104</b>	<b>College Reading and Writing I</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Appropriate score on English Placement Test or TOEFL. Special Fees. Special Note: Required language lab work. For intermediate to advanced students. Extensive practice in reading and composition strategies for academic and career settings. Emphasis on alternatives to translation. Includes special practice in grammar.		
<b>ESL A105</b>	<b>Vocabulary Enhancement I</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Appropriate score on English Placement Test or TOEFL. Special Fees. Special Note: Required language lab work. For intermediate to advanced students. Extensive practice in different methods of acquiring a larger, more precise vocabulary. Emphasis on using context clues and choosing words to match the occasion/audience. Includes special instruction in idioms used by adults.		
<b>ESL A106</b>	<b>College Grammar I</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Appropriate score on English Placement Test. May be stacked with: ESL A110. Special Fees. Presents elements of English grammar for improving comprehension and accuracy. Provides focused instruction in intermediate grammar of Standard American English for academic and professional settings. Includes practice in editing. Designed for ESL students only.		
<b>ESL A107</b>	<b>Oral Fluency II</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ESL A103. Registration Restrictions: Appropriate score on TOEFL/TSE, or interview with ESL director. Special Fees. Special Note: Required language lab work. For advanced students. Further instruction in pronunciation, listening comprehension, and speaking strategies for academic and career settings. Emphasis on self-correction. Includes special practice in formal presentation techniques.		
<b>ESL A108</b>	<b>College Reading and Writing II</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ESL A104. Registration Restrictions: Appropriate score on English placement test or TOEFL. Special Fees. Special Note: Required language lab work. For advanced students. Further practice in reading and composition strategies for academic and career settings. Emphasis on the use of on-campus resources for self-improvement. Includes additional practice in grammar.		
<b>ESL A109</b>	<b>Vocabulary Enhancement II</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ESL A105. Registration Restrictions: Appropriate score on English placement test or TOEFL. Special Fees. Special Note: Requires language lab work. For advanced students. Further practice in different methods of acquiring a larger, more precise vocabulary. Emphasis on applying knowledge of word parts from Latin and Greek. Includes special instruction in academic vocabulary.		
<b>ESL A110</b>	<b>College Grammar II</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ESL A106 with minimum grade of C. Registration Restrictions: Appropriate score on English Placement Test or prerequisite course. May be stacked with: ESL A106. Special Fees. Examines elements of English grammar for improving comprehension and accuracy. Provides focused instruction in high-intermediate and advanced grammar of Standard American English for academic and professional settings. Includes practice in editing. Designed for ESL students only.		
<b>ESL A190</b>	<b>Selected Topics in English as a Second Language</b>	<b>1-3 CR</b>
Contact Hours: 1-3 + 0 Registration Restrictions: Placement at the appropriate level for topic by ESL faculty. Special Fees. Special Note: Repeatable for credit with change of topic. Presents English as a Second Language related to a selected topic or field. Emphasizes increasing language proficiency for non-native English speakers. Focuses on integrated skills: reading, writing, speaking, and listening.		

## ESM - Engineering & Science Management

*Offered through the School of Engineering*

*University Lake Building Annex (ULBA), 786-1924*

<http://soe.uua.alaska.edu/espm>

<b>ESM A450</b>	<b>Economic Analysis and Operations</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Special Note: Not offered for credit toward the Master of Science in engineering management or science management. Offered Spring Semesters. Fundamentals of engineering economy, project scheduling, estimating, legal principles, professional ethics, and human relations.		
<b>ESM A601</b>	<b>Engineers in Organizations</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: BS degree in Engineering or in a physical science. Special Fees. Development of organizations and techniques appropriate to managing engineering and scientific effort. Included will be a study of engineering and scientific activity and personnel in order to organize, motivate, evaluate, develop, and coordinate for maximum effectiveness, with due consideration to the goals of individuals.		
<b>ESM A605</b>	<b>Engineering Economy</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Special Fees. The science of fiscal decision making. Graduate level studies in problems of replacement, economic selections, income tax accounting, engineering evaluation and introduction to the problems of depreciation.		
<b>ESM A608</b>	<b>Legal Environment for Engineering Management</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Devoted to those aspects of law specifically related to technical management: contracts, sales, real property, business organization, labor, patents, and insurance.		
<b>ESM A610</b>	<b>Cost Estimating</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: BS degree in Engineering or in a physical science or faculty permission. Special Fees. Principles, practices and procedures used in the preparation of engineering cost estimates. Exposition of the basic concepts and steps required to develop engineering type, labor and material based, and parametric cost estimates. Preparation of cost proposals and study of bidding procedures. Students will manage the student project teams, prepare a research paper, and make a class presentation.		
<b>ESM A613</b>	<b>Management of Technical People</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: BS degree in Engineering or in a physical science. Human factors with which engineers and scientists will be involved in the work place. Includes labor and union concerns, human relations as a major factor in supervision, and other problems of the engineer or scientist in working with people.		
<b>ESM A617</b>	<b>Technology Management</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Graduate standing. Crosslisted with: BA A617. Issues and case studies of policy development, strategy, planning and management of technology in the overall corporate environment.		
<b>ESM A619</b>	<b>Computer Simulation of Systems</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: BA A601 or ESM A620. Special Fees. Intensive study of simulation concepts and methods, introduction to major simulation languages. Survey of simulation applications in various disciplines.		
<b>ESM A620</b>	<b>Statistics for ESM</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Undergraduate Statistics course. Special Fees. Development of an overall perspective on the role of statistics within the framework of engineering and management decision making. Includes the use of statistical software.		

## Course Descriptions

<b>ESM A621</b>	<b>Operations Research</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Undergraduate probability and statistics course. Special Fees. Mathematical techniques for aiding managerial decision making. Topics will include waiting line theory, inventory models, linear programming, transportation problems, dynamic programming, PERT/CPM, Markov chains, and simulation. The emphasis is on the application of techniques to engineering management situations.		
<b>ESM A623</b>	<b>Total Quality Management</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: BA A601 or ESM A620 and [BA A632 or ESM A601]. Special Fees. Brief history of the origins of modern quality management; review of basic tools for continuous quality improvement involving everyone in the organization. The organizational climate for continuous improvement. Survey of statistical tools for continuous quality improvement.		
<b>ESM A684</b>	<b>ESM Project</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Individual study of an actual engineering or science management problem, resulting in a report which includes recommendations for action.		
<b>ESM A698</b>	<b>Individual Research</b>	<b>1-6 CR</b>
Contact Hours: 1-6 + 0 Registration Restrictions: Faculty permission. A course to be designed between the student and faculty member to allow students the chance to pursue special advanced interests in Engineering/Science Management at the MS level.		
<b>ESM A699</b>	<b>ESM Thesis</b>	<b>1-9 CR</b>
Contact Hours: 1-9 + 0		

## ET - Electronics Technology

*Offered through Kenai Peninsula College*

*156 College Road, Soldotna, Alaska, 99669, (907) 262-0330*

*www.kpc.alaska.edu*

<b>ET A101</b>	<b>Basic Electronics: DC Circuits</b>	<b>4 CR</b>
Contact Hours: 3 + 3 Prerequisites: MATH A055. Principles of electricity in direct current (DC) circuits, including voltage, current, resistance, and power. Properties of series and parallel circuits. Covers circuit analysis theorems and techniques.		
<b>ET A102</b>	<b>Basic Electronics: AC Circuits</b>	<b>4 CR</b>
Contact Hours: 3 + 3 Prerequisites: ET A101 and MATH A105. Principles of alternating current (AC) circuits, including vectors, phase relationships, inductive and capacitive reactance and impedance. Covers AC circuit analysis, series and parallel resonant circuits, transformers, and network analysis.		
<b>ET A126</b>	<b>Digital Electronics</b>	<b>4 CR</b>
Contact Hours: 3 + 2 Prerequisites: MATH A055. Special Fees. Principles of digital logic; including number systems, logic gates, logic functions, logic design, and analysis methods.		
<b>ET A151</b>	<b>Basic Electricity for the Trades</b>	<b>4 CR</b>
Contact Hours: 3 + 3 Prerequisites: MATH A055. An introduction to the principles and concepts of electricity as it applies to the non-electronics major. Covers basic electricity and electrical theory, reading of blue prints and electrical plans, analysis of building electrical systems, and installation of electrical devices used in the industry: switches, receptacles, and appliances with 120-volt through 480-volt systems.		
<b>ET A160</b>	<b>DC Electrical Systems</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Corequisite: ET A161. Covers basic DC electrical concepts, definitions, laws, and applications. Introduces passive electrical components, schematic symbols, wiring diagrams, power sources, and distribution systems.		

<b>ET A161</b>	<b>DC Lab</b>	<b>1 CR</b>
Contact Hours: 0 + 3 Corequisite: ET A160. Special Fees. Presents methods of safe and accurate measurement of DC electrical quantities using basic electrical test equipment. Covers equipment connection, testing methods and operation to observe electrical component characteristics to troubleshoot defective circuits. Power sources, distribution systems, schematic and wiring diagrams will also be covered.		
<b>ET A162</b>	<b>AC Electrical Systems</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ET A160 and ET A161. Corequisite: ET A163. Special Fees. Examines theory and application of basic concepts, definitions and laws governing alternating current signal and power sources. Includes AC waveforms, sources, components, wiring diagrams, schematic symbols, and analysis of AC power distribution.		
<b>ET A163</b>	<b>AC Lab</b>	<b>1 CR</b>
Contact Hours: 0 + 3 Prerequisites: ET A160 and ET A161. Corequisite: ET A162. Special Fees. Presents measurement of AC electrical quantities using basic electrical test equipment. Covers AC circuit troubleshooting through proper equipment connections, testing, and operations. Power sources, distribution systems, schematic, and wiring diagrams will also be covered.		
<b>ET A165</b>	<b>Introduction to Digital Devices</b>	<b>1 CR</b>
Contact Hours: 1 + 0.5 Special Fees. Introduces the principles and practical applications of digital electronics used by computers, communications equipment, and control systems. Topics will include digital logic gates, binary numbers, flip-flops, registers, counters, and shift registers.		
<b>ET A166</b>	<b>Technical Calculations and Applications</b>	<b>2 CR</b>
Contact Hours: 2 + 0 Presents applied calculations for students in technical fields. Covers basic arithmetic, conversions, solving equations, logarithms, multinomial equations, graphs and applied basic concepts of geometry, trigonometry, and statistics.		
<b>ET A175</b>	<b>Technical Introduction to Computing Systems</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: MATH A055. Principles of digital computing systems, including number systems, data representation, the central processing unit, computer system organization and programming in both assembly and the high-level languages.		
<b>ET A180</b>	<b>Semiconductor Devices</b>	<b>4 CR</b>
Contact Hours: 3 + 2 Prerequisites: ET A162 and ET A163. Special Fees. Introduces semiconductor fundamentals and parameters. Covers semiconductor physics, diode and transistor characteristics and applications. Provides methods for analyzing and troubleshooting complex semiconductor circuitry. Component coverage includes specialty diodes, multi-layer control devices, bipolar transistors, JFETs, MOSFETs, and multistage coupling devices.		
<b>ET A181</b>	<b>Digital Electronics</b>	<b>4 CR</b>
Contact Hours: 3 + 2 Special Fees. Presents digital electronics concepts, logic families and applications. Provides methods for analyzing and troubleshooting complex digital circuitry. Topics include binary numbers, digital logic gates, flip-flops, registers, counters, shift registers, logic interfacing, logic families, timers, analog and digital converters, and memory devices.		
<b>ET A182</b>	<b>Applied Integrated Circuits</b>	<b>2 CR</b>
Contact Hours: 1.5 + 2 Prerequisites: ET A180. Special Fees. Presents the electrical characteristics and applications of the ideal operational amplifier. Topics include input and output characteristics, comparators, amplifiers, signal/function generation, active filtering and power supply regulation.		
<b>ET A183</b>	<b>Data Communications</b>	<b>1 CR</b>
Contact Hours: 1 + 0.5 Prerequisites: CNT A164 and ET A165. Presents basic data communication concepts, including history, data conversion, A/D and D/A protocol, interfacing, direction control, and multiplexing.		



<b>ET A184</b>	<b>Telecommunications</b>	<b>2 CR</b>
Contact Hours: 1.5 + 1 Prerequisites: ET A162 and ET A163. Presents and examines basic telecommunication and data communication concepts and equipment. Topics include history, transmission methodology, multiplexing, media, data conversion, analog-to-digital and digital-to-analog, protocols, interfacing, direction control, telecommunication equipment, switching systems, subscriber services, and distribution techniques.		
<b>ET A185</b>	<b>Transmitters and Receivers</b>	<b>3 CR</b>
Contact Hours: 2 + 3 Prerequisites: ET A184. Explores the methods and techniques used in transmission and reception of AM, FM, and SSB signals. Emphasizes antennas, transmission lines, signal propagation, transmitter and receiver circuitry, alignment, and troubleshooting.		
<b>ET A240</b>	<b>Computer Systems Interfacing</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ET A126 and ET A175. Introduces concepts, programming techniques and device connections for computer sensing and control systems. Covers program design for device interfacing, common interfacing circuits, analog to digital conversion, digital to analog conversion, and serial communications.		
<b>ET A241</b>	<b>Digital Control Systems</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ET A240. Introduces concepts, architecture and development of digital supervisory control and data acquisition (SCADA) systems. Includes systems organization, industrial data communications, data point addressing and recording, programmable logic controller (PLC) connections and programming, and human-machine interface (HMI) design and implementation.		
<b>ET A243</b>	<b>Programmable Logic Controllers</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ET A126. Introduces the programmable logic controller (PLC) for industrial control applications. Includes PLC system design, hardware selection, configuration, input/output connections, programming and troubleshooting.		
<b>ET A246</b>	<b>Electronic Industrial Instrumentation</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ET A102. Explains the methods of analog signal conditioning and transmission. Describes common sensors for level, pressure, temperature and chemical analysis. Includes instrument connections, wiring, shielding, voltage and current loops, fieldbus protocols and digital controllers.		
<b>ET A260</b>	<b>Instrumentation and Control Processes</b>	<b>3 CR</b>
Contact Hours: 2 + 3 Prerequisites: ET A180 and ET A181 and ET A182. Special Fees. Covers theory of measurement, control, and data acquisition. Includes instrumentation circuitry, mechanical control elements, computer control processes, sensors, transducers, IP interfacing, and applications.		
<b>ET A261</b>	<b>Electronic Systems Troubleshooting</b>	<b>2 CR</b>
Contact Hours: 1.5 + 2 Prerequisites: ET A180 and ET A182. Emphasizes troubleshooting and repair techniques for electronic circuits and systems. Includes schematic use, soldering, test equipment use, and safe practices for simple and complex circuits.		
<b>ET A262</b>	<b>Transmitters, Receivers and Advanced Communications</b>	<b>3 CR</b>
Contact Hours: 2 + 3 Prerequisites: ET A184. Explores the methods and techniques used in transmission and reception of AM, FM and single-sideband signals. Emphasizes antennas, transmission lines, signal propagation, transmitter and receiver circuitry, alignment and troubleshooting. Also examines communications technology including microwave, radar, satellite, mobile and cellular telephone, video, and other wireless systems.		
<b>ET A276</b>	<b>Independent Project</b>	<b>3 CR</b>
Contact Hours: 0 + 11 Registration Restrictions: Faculty Permission; and working knowledge of TES topics. Develops, implements, and completes a project based on a relevant technological issue. Student works closely with faculty to produce an end project and report.		

<b>ET A282</b>	<b>Work Study</b>	<b>3 CR</b>
Contact Hours: 0 + 11 Registration Restrictions: Faculty Permission; and successful completion of 12 credits in TES program. Grade Mode: Pass/No Pass. Provides supervised workplace experience in industry settings. Integrates advanced level knowledge and practices to demonstrate skill competencies.		
<b>ET A291</b>	<b>Selected Topics in Electronics Technology</b>	<b>1-4 CR</b>
Contact Hours: 1-4 + 0-12 Special Note: Prerequisites may be imposed depending on topic. May be repeated under a different topic. Offers selected topics in electronics pertaining to state-of-the-art technology and trends. Course content is determined by current trends, new technologies, and student and employer needs.		

## FCS - Family & Consumer Sciences

*Offered through the Community & Technical College*

*Allied Health Sciences Building (AHS), Room 172, 786-6494*

*[www.uaa.alaska.edu/ctc](http://www.uaa.alaska.edu/ctc)*

<b>FCS A120</b>	<b>Learn to Sew</b>	<b>1 CR</b>
Contact Hours: 0 + 2 Basic principles of sewing and simple clothing construction. Includes use of sewing machine, selection of fabrics and patterns, and simple construction techniques. Students must provide own sewing equipment (except sewing machine) and all patterns and fabrics for class projects.		
<b>FCS A124</b>	<b>Sewing Topics</b>	<b>1-3 CR</b>
Contact Hours: 1-3 + 2-6 Special Note: May be repeated any number of times, but a maximum of 6 credits applicable toward degree requirements. Flexible workshops offering variety of specialized clothing and textile skill techniques.		

## FD - Floral Design

*Offered through the Community & Technical College*

*Lucy Cuddy Hall (CUDY), Room 126, 786-4728*

*[www.uaa.alaska.edu/ctc/programs/eagleriver](http://www.uaa.alaska.edu/ctc/programs/eagleriver)*

<b>FD A161</b>	<b>Floral Design I</b>	<b>3 CR</b>
Contact Hours: 2 + 2 Special Fees. Special Note: Appropriate for persons with personal and professional interests. Covers basic principles, techniques, and mechanics of floral design, flower identification and selection, and the use and care of equipment and supplies.		
<b>FD A162</b>	<b>Floral Design II</b>	<b>3 CR</b>
Contact Hours: 2 + 2 Prerequisites: FD A161. Special Fees. Covers basic principles, techniques, and mechanics of floral design and specialty corsages using fresh plant materials. Includes pricing and cost control.		

## FIRE - Fire Science

*Offered through the Community & Technical College*

*Allied Health Sciences Building (AHS), Room 161, 786-6928*

*[www.uaa.alaska.edu/ctc/programs/academic/alliedhealth/academics/fire.cfm](http://www.uaa.alaska.edu/ctc/programs/academic/alliedhealth/academics/fire.cfm)*

<b>FIRE A101</b>	<b>Principles of Emergency Services</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Introduces fire protection; career opportunities in fire protection and related fields; philosophy and history of fire protection/service; fire loss analysis; organization and function of public and private protection services; fire departments as part of local government; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; and fire strategy and tactics.		
<b>FIRE A105</b>	<b>Fire Prevention</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Introduces the fundamentals of the history and philosophy of fire prevention, organization, and operation of a fire prevention bureau, use of fire codes, identification and correction of fire hazards, and the relationships of fire prevention with built-in fire protection systems, fire investigation, and fire and life-safety education.		

## Course Descriptions

<b>FIRE A107</b>	<b>Strategy and Tactics</b>	<b>3 CR</b>	<b>FIRE A137</b>	<b>Firefighter I, Series IV</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: FIRE A101. Provides an in-depth analysis of the principles of fire control through utilization of personnel, equipment, and extinguishing agents on the fire ground.			Contact Hours: 3 + 1 Prerequisites: FIRE A135. Special Fees. Special Note: Successful completion of all four Firefighter I series will qualify/prepare the student to sit for Alaska State Fire Fighter I certification exam. All students are required to wear a complete set of fire department approved protective clothing (turnout gear) during skills training. (Turnout gear provided) Provides fundamental knowledge of fire behavior, fire organizations, types of fire equipment, emergency response services processes, and methods of their use. Includes wildland fire control, classes of fire, vehicle fires, sprinkler systems, salvage, overhaul, fire cause, communications equipment and techniques, fire prevention, and public fire education.		
<b>FIRE A111</b>	<b>Fire Administration I</b>	<b>3 CR</b>	<b>FIRE A151</b>	<b>Wildland Fire Control I</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: FIRE A101. Introduces the organization and management of a fire department and the relationship of government agencies to the fire service. Emphasizes fire service leadership from the perspective of the company officer's role in management, leadership, personnel, planning, and communication.			Contact Hours: 3 + 0 Special Note: Successful course completion combined with physical fitness requirements may qualify the student for an Interagency Fire Qualification Card (Red Card) with a rating of "Firefighter." Provides entry level and experienced firefighters with fundamental knowledge of wildland fire organization, fire behavior, air operations, suppression methods, safety, ICS, portable pumps, water use and wildfire chainsaw operations.		
<b>FIRE A117</b>	<b>Rescue Practices</b>	<b>3 CR</b>	<b>FIRE A155</b>	<b>Wildland Fire Behavior</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: EMT A110 or EMT A130. Registration Restrictions: Departmental approval Special Fees. Special Note: Students must be physically capable of performing rescue skills and must be currently certified as an Emergency Trauma Technician or an Emergency Medical Technician. Introduces rescue problems, techniques, and equipment. Includes SCBA use, urban search and rescue, scene safety, motor vehicle crashes, technical rescue, water, swift water, and ice rescue, mass casualty incidents, and heavy rescue.			Contact Hours: 3 + 0 Prerequisites: MATH A105. Special Fees. Provides the knowledge and skills for fire behavior prediction. Introduces the manual method of fire behavior calculations. Provides an understanding of the determinants of fire behavior through studying input and how to interpret fire behavior output.		
<b>FIRE A121</b>	<b>Fire Behavior and Combustion</b>	<b>3 CR</b>	<b>FIRE A157</b>	<b>Wildland Air Operations and Safety</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: MATH A105 with minimum grade of C. Presents the theories and fundamentals of how and why fires start, why they spread, and how they are controlled.			Contact Hours: 3 + 0 Special Fees. Introduces aircraft types and capabilities, aviation management and safety for flying in and working with agency aircraft, tactical and logistical uses of aircraft, and requirements for helicopter take-off and landing areas. The regulations and policies addressed in this course are primarily those governing federal agency and ICS operations.		
<b>FIRE A123</b>	<b>Fire Investigation I</b>	<b>3 CR</b>	<b>FIRE A159</b>	<b>Wildland Fire Operations Function</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: FIRE A101 and FIRE A121. Introduces the fundamentals and technical knowledge needed for proper fire scene interpretations, including recognizing origin and cause, preservation of evidence and documentation, scene security, motives of the fire-setter, and types of fire causes.			Contact Hours: 3 + 0 Prerequisites: FIRE A151. Special Fees. Assists the structure and wildland firefighters in the wildland/urban interface tactical decision making process. Introduces the duties associated with the single resource boss position from initial dispatch through demobilization to the home unit.		
<b>FIRE A131</b>	<b>Firefighter I, Series I</b>	<b>3 CR</b>	<b>FIRE A170</b>	<b>Occupational Safety and Health for Fire Service</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Special Fees. Special Note: Successful completion of all four Firefighter I series will qualify/prepare the student to sit for Alaska State Fire Fighter I certification exam. All students are required to wear a complete set of fire department approved protective clothing (turnout gear) during skills training. (Turnout gear provided) Presents fundamental knowledge of fire behavior, fire organizations, types of fire equipment, emergency response services processes, and methods of their use. Includes orientation, safety, fire behavior, building construction, protective clothing, and self-contained breathing apparatus (SCBA).			Contact Hours: 3 + 0 Introduces the basic concepts of occupational health and safety as they relate to emergency service organizations. Topics include risk evaluation and control procedures for fire stations, training sites, emergency vehicles, and emergency situations involving fire, EMS, hazardous materials, and technical rescue.		
<b>FIRE A133</b>	<b>Firefighter I, Series II</b>	<b>3 CR</b>	<b>FIRE A201</b>	<b>Principles of Emergency Management</b>	<b>3 CR</b>
Contact Hours: 2 + 2 Prerequisites: FIRE A131. Special Fees. Special Note: Successful completion of all four Firefighter I series will qualify/prepare the student to sit for Alaska State Fire Fighter I certification exam. All students are required to wear a complete set of fire department approved protective clothing (turnout gear) during skills training. (Turnout gear provided) Introduces the fundamental knowledge of fire behavior, fire organizations, types of fire equipment, emergency services processes and methods of their use. Includes portable extinguishers, ropes and knots, building search, victim removal, forcible entry tools, construction, techniques, and ground ladders.			Contact Hours: 3 + 0 Prerequisites: FIRE A101. Examines the history of emergency management. Identifies and determines risk assessments for natural and technological hazards. Identifies and assesses the disciplines of emergency management. Examines international disaster management, emergency management and terrorism, and discusses the future of emergency management.		
<b>FIRE A135</b>	<b>Firefighter I, Series III</b>	<b>3 CR</b>	<b>FIRE A202</b>	<b>Fire Protection Hydraulics and Water Supply</b>	<b>3 CR</b>
Contact Hours: 2 + 2 Prerequisites: FIRE A133. Special Fees. Special Note: Successful completion of all four Firefighter I series will qualify/prepare the student to sit for Alaska State Fire Fighter I certification exam. All students are required to wear a complete set of fire department approved protective clothing (turnout gear) during skills training. (Turnout gear provided) Provides fundamental knowledge of fire behavior, fire organizations, types of fire equipment, emergency response services processes, and methods of their use. Includes ventilation, water supply, hose rolling, coupling, loading, carrying, advancing, laying, and water fire streams.			Contact Hours: 3 + 0 Prerequisites: FIRE A101 and FIRE A121 and (MATH A105 or concurrent enrollment). Introduces the principles of the use of water in fire protection and the application of hydraulic principles to analyze and solve water supply problems.		
			<b>FIRE A203</b>	<b>Hazardous Materials Chemistry I</b>	<b>3 CR</b>
			Contact Hours: 3 + 0 Prerequisites: FIRE A101 and FIRE A121 and (MATH A105 or concurrent enrollment). Special Fees. Applies basic fire chemistry relating to the categories of hazardous materials, including problems of recognition, reactivity, and health encountered by firefighters.		

<p><b>FIRE A206 Building Construction for Fire Protection</b> 3 CR Contact Hours: 3 + 0 Prerequisites: FIRE A101 and FIRE A121. Covers the principles of building construction that relate to fire and safety with an emphasis on firefighter safety. Demonstrates how the elements of construction and design are shown to be key factors when inspecting buildings, preplanning fire operations, and operating at emergencies.</p> <p><b>FIRE A214 Fire Protection Systems</b> 3 CR Contact Hours: 3 + 0 Prerequisites: FIRE A101 and FIRE A105 and FIRE A121 and MATH A105. Presents information relating to the features of design and operation of fire detection and alarm systems, heat and smoke control systems, special protection and sprinkler systems, water supply for fire protection and portable fire extinguishers.</p> <p><b>FIRE A216 Methods of Instruction for Fire and Emergency Services</b> 3 CR Contact Hours: 3 + 0 Registration Restrictions: Three years experience with a recognized/organized fire department or an emergency response organization involved in firefighting. Special Fees. Satisfies the State requirements for both basic and advanced methods of instruction (MOI) specifically for firefighter training. Topics include instructional planning, methods and techniques of instruction, concepts of learning, communication, evaluation and testing, use of audiovisual aids and materials, roles and responsibilities of instructors, developing and modifying lesson plans, budgeting, scheduling, teaching in a high hazard environment, and managing other instructors.</p> <p><b>FIRE A220 Legal Aspects of Emergency Services</b> 3 CR Contact Hours: 3 + 0 Prerequisites: ENGL A111. Introduces the Federal, State, and local laws that regulate emergency services. Identifies national standards influencing emergency services, tort liability, and standard of care. Review of relevant court cases directly related to fire and emergency medical services.</p> <p><b>FIRE A223 Fire Investigation II</b> 3 CR Contact Hours: 3 + 0 Prerequisites: FIRE A123. Special Fees. Special Note: Successful completion of FIRE A123 and FIRE A223 Will prepare the student to sit for the State of Alaska Fire Investigator Certification test. Provides advanced technical knowledge of rule of law, fire scene analysis, fire behavior, evidence collection and preservation, scene documentation, case preparation, and testifying.</p> <p><b>FIRE A230 Fire Department Organizational Theory and Behavior</b> 3 CR Contact Hours: 3 + 0 Prerequisites: FIRE A101. Special Fees. Exposes the student to fire department organizational theory and behavior. Examines various theories developed to explain and predict employee behavior in an organizational context. Develops analytical thinking capabilities by comparing and contrasting conflicting theories of organizations.</p>	<p><b>FREN A201 Intermediate French I</b> 4 CR Contact Hours: 4 + 0 Prerequisites: FREN A102. Course Attributes: UAA GER Humanities Requirement. Special Fees. Intermediate course for students with basic knowledge of French. Enhances listening, speaking, reading, and writing skills for effective communication at the intermediate level. Students critically examine diverse cultural perspectives. Course conducted in French.</p> <p><b>FREN A202 Intermediate French II</b> 4 CR Contact Hours: 3 + 2 Prerequisites: FREN A201. Course Attributes: UAA GER Humanities Requirement. Special Fees. Continuation of first semester in intermediate French. Further develops listening, speaking, reading, and writing proficiency for effective communication and in preparation for advanced study of French. Students interpret diverse cultural perspectives. Course conducted in French.</p> <p><b>FREN A301 Advanced French I</b> 4 CR Contact Hours: 4 + 0 Prerequisites: FREN A202 with minimum grade of C. Registration Restrictions: If prerequisite not met, students can gain entrance to course with departmental approval. Course Attributes: UAA GER Humanities Requirement. Special Fees. Advanced French course in refining listening, speaking, reading, writing, and analytical skills for effective interaction in communicatively complex situations. Students critically analyze diverse cultural topics.</p> <p><b>FREN A302 Advanced French II</b> 4 CR Contact Hours: 4 + 0 Prerequisites: FREN A301 with minimum grade of C. Registration Restrictions: If prerequisite not met, students can gain entrance to course with departmental approval. Course Attributes: UAA GER Humanities Requirement. Special Fees. Continuation of first semester in advanced French. Further refines listening, speaking, reading, writing, and analytical skills for effective interaction in communicatively complex situations. Students critically analyze diverse cultural topics.</p> <p><b>FREN A306 Advanced French Conversation and Composition</b> 1-3 CR Contact Hours: 1-3 + 0 Prerequisites: FREN A202. Special Fees. Special Note: May be offered in 1-, 2-, or 3-credit segments. Repeatable for credit with change of subtitle. Up to 3 credits may count toward a minor or major in languages with an emphasis in French. Speaking and writing about French and Francophone countries, their peoples, customs and cultures.</p> <p><b>FREN A310 Selected Topics: Literary Trends and Traditions</b> 3 CR Contact Hours: 3 + 0 Prerequisites: FREN A302 with minimum grade of C. Special Fees. Special Note: May be repeated for credit with a change of subtitle. Focuses on diverse literary traditions of multiple French-speaking communities. Critical analysis through a variety of disciplinary methodologies (e.g. historical, cultural, artistic); terminology also explored and developed. Enhances French language skills in writing, reading, speaking, listening and cultural literacy.</p> <p><b>FREN A432 Studies of Literature and Culture</b> 3 CR Contact Hours: 3 + 0 Registration Restrictions: Reading ability in French equivalent to three years of college study. Special Fees. Intensive study of authors, literary movements, periods, and/or genres. Students will also analyze cultural material other than texts. The course is conducted in French and may be repeated for credit when topics vary.</p>
<p><b>FREN - French</b></p> <p><i>Offered through the College of Arts and Sciences Administration/Humanities Building (ADM), Suite 287, 786-4030 <a href="http://www.uaa.alaska.edu/languages">www.uaa.alaska.edu/languages</a></i></p>	
<p><b>FREN A101 Elementary French I</b> 4 CR Contact Hours: 4 + 0 Course Attributes: UAA GER Humanities Requirement. Special Fees. Introductory course for students with no previous knowledge of the French language. Develops listening, speaking, reading, and writing skills in French for effective communication at the elementary level. Students gain understanding of basic cross-cultural perspectives. Course conducted in French.</p> <p><b>FREN A102 Elementary French II</b> 4 CR Contact Hours: 4 + 0 Prerequisites: FREN A101. Course Attributes: UAA GER Humanities Requirement. Special Fees. Continuation of introductory course. Further develops elementary listening, speaking, reading, and writing skills in French for effective communication. Enhances appreciation of cross-cultural perspectives. Course conducted in French.</p>	

**GEO - Geomatics**

*Offered through the School of Engineering*

*Engineering Building (ENGR), Room 213, 786-1972*

*www.engr.uaa.alaska.edu/programs/geomatics*

**GEO A137 Principles of Mapping 3 CR**

Contact Hours: 2 + 2

Registration Restrictions: Computer competency (see admission requirements) or instructor approval.

Special Note: Offered Fall Semesters.

Introduction to cartographic methods, design, and map reading. Basic map components, including projections, text, line work, and data symbolization. Projects will be completed using traditional and computer cartographic techniques. Mapping basics integral to all Geomatics courses and essential in the preparation of students from all disciplines for further mapping and GIS courses.

**GEO A146 Surveying Computations 3 CR**

Contact Hours: 3 + 0

Prerequisites: MATH A108 with minimum grade of C.

Registration Restrictions: See admission requirements.

Special Fees.

Special Note: Offered Spring Semesters.

Introduction to Geomatic, subdivision, and boundary computations. Intersection of lines. Methods of adjusting Geomatic data. Design and determination of curvilinear and required areas. Adjustment of retracement surveys. Computations of circular curves. Introduction to the current industry standard hand held calculator.

**GEO A155 Fundamentals of Surveying 3 CR**

Contact Hours: 2 + 3

Prerequisites: MATH A108 with minimum grade of C.

Registration Restrictions: See admission requirements.

Special Fees.

Special Note: Offered Fall Semesters.

Introduction to Geomatics and survey measurement techniques, including the use of levels, theodolites, and total stations, and GPS. Methods of recording and reducing field data. Use of hand-held calculators to compute directions, survey errors, closures, adjustments, and area. Geomatics projects and field trips. Review of historical survey techniques and the Public Land Survey System. Introduction to horizontal curves.

**GEO A157 Analytical and Digital Cartography 3 CR**

Contact Hours: 2 + 2

Prerequisites: GEO A137.

Special Note: Offered Fall Semesters.

Introduction for Geomatics majors and non-majors to the principles of computer aided design and mapping. AutoCAD, Land Development Desktop, and class projects will be used to introduce the basics of digital cartography and provide a knowledge base essential for future Geomatics courses and career preparation.

**GEO A158 Geomatics Computer Fundamentals 1 CR**

Contact Hours: 0 + 2

Prerequisites: (GEO A155 or concurrent enrollment).

Registration Restrictions: Prerequisites may be waived by instructor based on student's prior experience.

Corequisite: ENGR A161.

Special Note: To be taken concurrently with ENGR A161.

Use of computational devices with applications in Geomatics. The basics of Reverse Polish Notation and keystroke programming will be covered. Use of Excel and MATLAB to solve geomatics problems will be emphasized.

**GEO A167 Remote Sensing and Image Analysis 4 CR**

Contact Hours: 4 + 0

Registration Restrictions: Computer competency (see admission requirements) or instructor approval.

Special Fees.

Special Note: Offered Spring Semesters.

Introduction to photo interpretation and imaging systems. Geometry of photogrammetry. Theory of electromagnetic spectrum. Application of remote sensing in engineering, archaeology, agriculture, and forestry using image analysis software.

**GEO A181 Construction Surveying 1 CR**

Contact Hours: 0 + 3

Prerequisites: MATH A105 with minimum grade of C or MATH A107 with minimum grade of C or MATH A108 with minimum grade of C.

Basic construction surveying procedures, including staking for roads, buildings and excavations; use of maps, construction plans, datums and coordinate systems; machine control systems. The course is predominantly field work.

**GEO A248 Digital Terrain Cartography 3 CR**

Contact Hours: 2 + 2

Prerequisites: GEO A157.

Special Note: Offered Spring Semesters.

An intermediate level digital terrain cartography course for Geomatics majors and non-majors. Autodesk Land Development Desktop and CAD Overlay will be used to introduce Autodesk Civil/Survey Software. Lectures and projects will include digital terrain modeling, alignments, cross-sections, volume computations, and provide a base graphic communications knowledge that is essential for success in future Geomatics courses and in professional employment.

**GEO A256 Municipal and Civil Geomatics 3 CR**

Contact Hours: 2 + 3

Prerequisites: GEO A155 with minimum grade of C and [MATH A107 with minimum grade of C and MATH A108 with minimum grade of C] or [MATH A109 with minimum grade of C and MATH A200 with minimum grade of C].

Theory and application of engineering surveying, including design and implementation of horizontal and vertical control. Route surveys, horizontal and vertical curves, control surveys, quantity and as-built surveys. Mining surveys, terrestrial scanners. Application of the theory of errors, error budgets and error simulation.

**GEO A257 Elements of Photogrammetry 3 CR**

Contact Hours: 2 + 2

Prerequisites: MATH A108 with minimum grade of C and GEO A157 with minimum grade of C.

Special Fees.

Special Note: Offered Fall Semesters.

Introduction to photogrammetric mapping including history, aerial cameras, optics, geometry of the aerial photograph, stereoscopes, parallax, and flight planning. Basic mathematics of photogrammetry and transformations. Techniques in the use of stereoscopes and photogrammetric plotters.

**GEO A266 Advanced Surveying 3 CR**

Contact Hours: 2 + 3

Prerequisites: GEO A146 with minimum grade of C and GEO A155 with minimum grade of C and GEO A157 with minimum grade of C.

Special Fees.

Advanced survey measurement techniques. Use of conventional survey instrumentation, total stations and data controllers. Acquisition and retrieval of geomatics data from data controllers. Horizontal and vertical traversing and adjustment methods. Basics of GPS control surveying. Topographic surveying projects.

**GEO A267 Boundary Law I 4 CR**

Contact Hours: 4 + 0

Prerequisites: GEO A155.

Special Note: Offered Fall Semesters.

Elements of boundary control and legal principles, boundary history, ownership, rights, interests, title, transfer and description of real property, the rectangular system, retracements, restoration of corners, locating sequential conveyances and simultaneously created boundaries, combination descriptions and conveyances, easements, riparian and littoral boundaries including riparian rights, navigability, public water, erosion, accretion, avulsion, reliction, and other water boundary elements.

**GEO A301 Geomatics Professional Development I 1 CR**

Contact Hours: 0 + 2

Class Standing Restriction: Must be Junior or Senior.

Registration Restrictions: Junior or senior standing.

An introduction to the engineering design process as used by geomatics professionals. Determining objectives and design criteria, research, and analysis in geomatics problem solving. Analysis of legal and similar arguments in geomatics. The course has an emphasis on developing open-ended problem-solving skills, including solving ethical and legal geomatics problems.

**GEO A302 Geomatics Professional Development II 1 CR**

Contact Hours: 0 + 2

Prerequisites: GEO A301 with minimum grade of C.

An introduction to the engineering design process as used by geomatics professionals. Conceptualization, feasibility assessment, human factors, design management and implementation in geomatics problem solving. The course has an emphasis on developing open-ended problem-solving skills, including solving ethical and legal geomatics problems. Continuation of GEO A301.

**GEO A303 Geomatics Professional Development III 1 CR**

Contact Hours: 0 + 2

Class Standing Restriction: Must be Junior or Senior.

Registration Restrictions: Junior or senior standing; completion of GER Tier I (basic college-level skills) courses.

Communications within geomatics engineering design groups, and between the groups and the wider community. Geomatics communications using a range of media and styles. Groupware and its use in geomatics. Introduction to organizational skills, with an emphasis on understanding how modern businesses involved in geomatics operate. Consulting in the geomatics industry.

<b>GEO A354</b>	<b>City and Regional Planning</b>	<b>3 CR</b>	<b>GEO A459</b>	<b>Geodetic Geomatics</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Class Standing Restriction: Must be Junior or Senior. Registration Restrictions: Junior or senior standing. Introduction to fundamentals concepts, including physical planning, transportation, housing, land use, urban development and preservation. Population movement to cities and suburbs; rural depopulation. Regional growth and development. Political and economic development drivers. History, theory and ethics of planning. Virtual environments. GIS and support tools for planning decisions.			Contact Hours: 3 + 0 Prerequisites: MATH A202 and GEO A359. Special Fees. Special Note: Offered Alternate Spring Semesters. Advanced topics in geometric geodesy and map projections. Introduction to physical geodesy. Programming of map projections transformations. Geodesy astronomy. Protracted townships.		
<b>GEO A355</b>	<b>Land Development and Design</b>	<b>3 CR</b>	<b>GEO A460</b>	<b>Geomatics Design Project</b>	<b>3 CR</b>
Contact Hours: 2 + 2 Prerequisites: GEO A248 with minimum grade of C and GEO A267 with minimum grade of C. Special Note: Offered Fall Semesters. Concepts governing land development. Analysis of soil, topography, geometry, environmental impact, aesthetic and economic principles in land planning. Permitting process. Federal, state, and municipality platting regulations. Automated subdivision design and platting. Ethical considerations when developing land.			Contact Hours: 1 + 6 Prerequisites: GEO A359 with minimum grade of C and GEO A365 with minimum grade of C and GIS A366 with minimum grade of C. Registration Restrictions: Prerequisites may be waived by instructor based on student's prior experience. Completion of GER Tier I (basic college-level skills) courses. Course Attributes: UAA GER Integrative Capstone. Special Fees. Projects in geomatics and geographic information systems (GIS). Research, design, data compilation, analysis and mapping for a geomatics project. Professional standards and ethical concerns for geomatics professionals.		
<b>GEO A358</b>	<b>Programming for Digital Cartography</b>	<b>3 CR</b>	<b>GEO A466</b>	<b>Geopositioning</b>	<b>3 CR</b>
Contact Hours: 2 + 2 Prerequisites: GEO A157 with minimum grade of C. Advanced principles of computer-aided design and mapping. Organization, filing, and database principles. Programming routines in Auto Visual Basic and AutoLISP languages.			Contact Hours: 3 + 0 Prerequisites: GEO A359 with minimum grade of C and GEO A365 with minimum grade of C. Special Fees. The theory and practice of positioning systems, primarily Global Navigation Satellite Systems (GNSS). Data collection, quality assessment, analysis and adjustment. Connection to Inertial Navigation Systems (INS) and other applications.		
<b>GEO A359</b>	<b>Geodesy and Map Projections</b>	<b>3 CR</b>	<b>GEO A467</b>	<b>Analytical and Digital Photogrammetry</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: MATH A200. Special Note: Offered Fall Semesters. Introduction to geometric geodesy. Computations on the ellipsoid. Elements of datums. Map projections and state plane coordinate systems. Coordinate transformations.			Contact Hours: 2 + 2 Prerequisites: GEO A257. Special Fees. Special Note: Offered Alternate Spring Semesters. Theory of analytical photogrammetry including mathematical development of the rotation matrix, interior, relative, and absolute orientation. Programming of photogrammetric adjustments. Theory of strip and block adjustments. Independent projects in photogrammetric mapping.		
<b>GEO A365</b>	<b>Geomatic Adjustment and Analysis</b>	<b>4 CR</b>	<b>GEO A490</b>	<b>Selected Advanced Topics in Geomatics</b>	<b>1-6 CR</b>
Contact Hours: 4 + 0 Prerequisites: MATH A202 and GEO A359. Special Note: Offered Spring Semesters. Analysis of errors and adjustments in geomatics measurements. Propagation of errors and variances. Statistical analyses and error ellipses. Geomatic accuracies and standards. Methods of least squares adjustment.			Contact Hours: 1-6 + 2-12 Registration Restrictions: Faculty permission. Advanced theoretical or practical concepts in geomatics. Specific course content is determined by student needs, developments in technology, or licensing requirements.		
<b>GEO A433</b>	<b>Hydrographic Surveying</b>	<b>3 CR</b>	<b>GEOG - Geography</b>		
Contact Hours: 3 + 0 Registration Restrictions: Upper class undergraduate or graduate standing in either Geomatics or Civil Engineering, or instructor's permission. Special Note: Offered Fall Semesters. Provides students with knowledge of and skills to apply physical principles, instrumentation, data analysis methods, and visualization products associated with hydrographic surveying, chart publication, and related marine measurement practices of government and industry.			<hr/> <i>Offered through the College of Arts and Sciences</i> <i>Beatrice McDonald Hall (BMH), Room 213, 786-6049</i> <a href="http://www.uaa.alaska.edu/ges">www.uaa.alaska.edu/ges</a>		
<b>GEO A456</b>	<b>Geomatics and Civil Design</b>	<b>3 CR</b>	<b>GEOG A101</b>	<b>Local Places/Global Regions: An Introduction to Geography</b>	<b>3 CR</b>
Contact Hours: 2 + 3 Prerequisites: GEO A266 with minimum grade of C and MATH A200 with minimum grade of C. Special Fees. Special Note: Offered Fall Semesters. Methods of gathering survey data for civil design. Geodesy overview. Global positioning systems (GPS) for positioning and direction. Elements of highway design and location, including horizontal, spiral, and vertical curves, super elevation, and earthwork. Geomatic design and location of utility systems. Geodetic and state plane coordinate systems. Elements of geographic information systems.			Contact Hours: 3 + 0 Crosslisted with: INTL A101. Course Attributes: UAA GER Social Sciences Requirement. Introduction to cultural, political, and environmental diversity in an international context. Focus on key global issues, current events, and geographic approaches to understanding world problems.		
<b>GEO A457</b>	<b>Boundary Law II</b>	<b>4 CR</b>	<b>GEOG A111</b>	<b>Earth Systems: Elements of Physical Geography</b>	<b>3 CR</b>
Contact Hours: 4 + 0 Prerequisites: GEO A267 and ENGL A212. Special Note: Offered Spring Semesters. Procedures and sources for legal research, Alaska Easement Law, Alaska State Statutes and Administrative Code applicable to land surveying, current BLM procedures and regulations, surveying platting procedures, Defective Survey Act, lotted sections, floodplains and wetlands, water boundary case law, ALTA/ASCM survey procedures, writing and interpreting legal descriptions.			Contact Hours: 3 + 0 Course Attributes: UAA GER Natural Sciences Requirement. Survey of the processes that form the physical environment and the resulting physical patterns. Study of landforms, climate, soils, water resources, vegetation and their world and regional patterns.		
			<b>GEOG A200</b>	<b>Alaskan Geography</b>	<b>3 CR</b>
			Contact Hours: 3 + 0 Introductory geographical survey of Alaska. Emphasis will be on the high latitude Alaskan lands and their potential for future development.		

## Course Descriptions

- GEOG A344 The Slavic World 3 CR**  
Contact Hours: 3 + 0  
Prerequisites: GEOG A101 or INTL A101.  
Origin, diffusion, and developmental histories of the Slavic peoples. Focus on the geography of Central East Europe, the realm inhabited by the Eastern (Russians, Belarusians, and Ukrainians), Western (Poles, Czechs, and Slovaks), and Southern Slavs (Bulgarians and peoples of the former Yugoslavia). Integration of region into the European Union and continued economic and political transition. Involvement of non-Slavic groups in the region also given consideration.
- GEOG A345 Across This Land: The Historical Geography of North America 3 CR**  
Contact Hours: 3 + 0  
Prerequisites: HIST A131.  
Crosslisted with: HIST A345.  
Special Note: GEOG A205 recommended.  
Explores the European settlement of North America (U.S. and Canada), the impact of geography on this settlement, and the impress of culture and political process on the land. A significant part of the course compares and contrasts the American and Canadian geographic experience and the creation of distinct regional cultures.
- GEOG A390 Field Studies in Geography 1-3 CR**  
Contact Hours: 1-2 + 3-6  
Registration Restrictions: Instructor's permission and a designated GEOG course.  
Special Note: May be repeated twice with change in subtitle.  
Geographic concepts and processes explored in the field. Introduction to geographic fieldwork techniques and methodology. Students will conduct fieldwork in selected areas of geographic inquiry. Topics range from regional studies to topical studies.
- GEOG A390A Topics in Global Geography 3 CR**  
Contact Hours: 3 + 0  
Prerequisites: GEOG A101 or INTL A101.  
Class Standing Restriction: Must be Junior or Senior.  
Registration Restrictions: Completion of Tier 1 (basic college-level skills) courses and junior standing.  
Course Attributes: UAA GER Integrative Capstone.  
Special Note: May be repeated twice with change of subtitle.  
Seminar focusing on a thematic approach to human geography in a global context. Draws on the interdisciplinary nature of geography to provide students with a broad understanding of critical global issues.
- GEOG A415 Anglo-Saxons and Vikings: History & Geography in Early Medieval North Atlantic 3 CR**  
Contact Hours: 3 + 0  
Prerequisites: HIST A101.  
Crosslisted with: HIST A415.  
Special Note: GEOG A205 recommended.  
A study of Anglo-Saxon and Viking society, territorial expansion, and settlement from the 7th - 11th centuries. Focus on historical impacts on the human landscape, political arrangement, and the effects of climate and environmental modification on population growth and migration.
- GEOG A443 Northwest Passage: The Changing Canadian North 3 CR**  
Contact Hours: 3 + 0  
Prerequisites: GEOG A101 or INTL A101 or INTL A315.  
Geography of and current issues in the Canadian North. Historical and political development of the Canadian North as a region. Current issues to include the sovereignty of the Northwest Passage, environmental impacts of mineral and other economic development, challenges to subsistence activities, cultural change and social challenges, and climate change and its overarching impact on the region.
- GEOG A447 The Silk Road: Ideological, Cultural, and Economic Travels through Central Eurasia 3 CR**  
Contact Hours: 3 + 0  
Prerequisites: GEOG A101 or INTL A101.  
Study of Central Asian cultures and histories in the context of the Silk Road. The extended region as a melange of cultural identities and histories, political economies, and ideological struggles. The interaction of the newly formed republics with China, Turkey, and Iran is also a significant concern of the course.

## GEOL - Geological Sciences

*Offered through the College of Arts and Sciences*

*ConocoPhillips Integrated Sciences Building (CPSB), Room 101, 786-4940  
<http://geology.uaa.alaska.edu>*

- GEOL A111 Physical Geology 4 CR**  
Contact Hours: 3 + 3  
Registration Restrictions: MATH A055 or higher  
Course Attributes: UAA GER Natural Science w/ Lab.  
Special Fees.  
Introduction to physical geology. Study of earth, its materials, and processes affecting changes on and within. Laboratory training in use of topographic maps, and recognition of common rocks and minerals.
- GEOL A115 Environmental Geology 3 CR**  
Contact Hours: 3 + 0  
Registration Restrictions: MATH A055 or higher  
Course Attributes: UAA GER Natural Sciences Requirement.  
An introduction to the study of applied environmental geology with a focus on geologic processes and linkages to how humans interact with the geologic environment. Both internal and external Earth processes and related topics such as earthquakes and volcanic eruptions as well as coastal processes and mineral and energy resources will be included.
- GEOL A115L Environmental Geology Laboratory 1 CR**  
Contact Hours: 0 + 3  
Prerequisites: (GEOL A115 or concurrent enrollment).  
Registration Restrictions: MATH A055 or higher  
Course Attributes: UAA GER Natural Sciences Lab Only.  
Special Fees.  
Investigation of problems in environmental geology related to volcanic and earthquake hazards, surface and groundwater pollution, landslides, coastal processes, and waste disposal with emphasis on the local areas in Alaska. Several local field trips are included.
- GEOL A178 Fundamentals of Oceanography 3 CR**  
Contact Hours: 3 + 0  
Registration Restrictions: Placement into MATH A105 or higher.  
Crosslisted with: BIOL A178.  
Course Attributes: UAA GER Natural Sciences Requirement.  
Principles of oceanography, with emphasis on the ocean's biological, physical, chemical, and geological processes, and how ocean processes affect the atmosphere.
- GEOL A179 Fundamentals of Oceanography Laboratory 1 CR**  
Contact Hours: 0 + 3  
Registration Restrictions: Placement into MATH A105 or higher.  
Crosslisted with: BIOL A179.  
Course Attributes: UAA GER Natural Sciences Lab Only.  
Special Fees.  
Laboratory exercises designed to illustrate principles and concepts developed in BIOL A178/GEOL A178.
- GEOL A190 Introductory Topics in Geology 1-3 CR**  
Contact Hours: 1-3 + 0  
Special Note: May be repeated with change of topic.  
Introductory study of a selected topic in geology.
- GEOL A221 Historical Geology 4 CR**  
Contact Hours: 3 + 3  
Prerequisites: GEOL A111.  
Course Attributes: UAA GER Natural Science w/ Lab.  
Special Fees.  
Special Note: Meets the GER natural science lab requirement.  
History of earth through geologic time, emphasizing North America. Major events in plate tectonics, evolution of life forms, and interpretation of the rock record. Lab includes invertebrate fossil identification, geologic map interpretation, stratigraphic principles, and field trip.
- GEOL A310 Professional Practices in Geology 3 CR**  
Contact Hours: 3 + 0  
Prerequisites: GEOL A221 and [ENGL A211 or ENGL A212 or ENGL A213 or ENGL A214].  
Major Restriction: Must be Geology major.  
Registration Restrictions: BSGS majors only.  
Introduction to workplace ethics, responsibilities, and expectations of geologists in a professional role. Practice in research methods, writing, and presentation techniques in the geosciences. Research design, proposal writing, resume and job applications, scientific writing, critical review, and oral presentation techniques.

<b>GEOL A320</b> Contact Hours: 3 + 0 Prerequisites: GEOL A221. Special Fees. The description and classification of volcanoes, volcanic eruptions, and volcanic deposits. Includes the history of volcanic studies, myths, and legends. Emphasis on the dynamics of volcanic eruptions, pyroclastic rocks, lava flows, and volcanic hazard assessment.	<b>Volcanology</b>	<b>3 CR</b>	<b>GEOL A380</b> Contact Hours: 0 + 9 Prerequisites: GEOL A221. Special Fees. Field experience focusing on the Anchorage area. Field trips to Anchorage, Eagle River, Turnagain, and Matanuska Valley to investigate the geologic history, glacial history, plate tectonics, and environmental concerns. Local rocks, formations, fossils, glacial landforms and structures will be examined. Five full day field trips.	<b>Anchorage Field Studies</b>	<b>3 CR</b>
<b>GEOL A321</b> Contact Hours: 3 + 3 Prerequisites: GEOL A221 and (GEOL A360 or concurrent enrollment) and MATH A105. Special Fees. Crystallography including external form and internal order. Crystal chemistry, atomic structure, crystal structure, and compositional variation, nature and origin of physical properties of minerals. Mineral association, occurrence, and paragenesis. Introduction to x-ray crystallography and optical mineralogy. Laboratory includes determinative crystallography, optical mineralogy and systematic determinative mineralogy.	<b>Mineralogy</b>	<b>4 CR</b>	<b>GEOL A381</b> Contact Hours: 0 + 9 Prerequisites: GEOL A221. Special Fees. Nine day field excursion from Anchorage to Portage, Kenai, Nikiski, Homer, and Seward, Alaska, to explore gold mining, oil and gas exploration and production, Tertiary coal, fossils, paleoenvironments, coastal geomorphology, glacial history, and plate tectonics of the Kenai Peninsula. Includes a full day boat excursion in Kenai Fjords National Park.	<b>Kenai Peninsula Field Studies</b>	<b>3 CR</b>
<b>GEOL A322</b> Contact Hours: 3 + 3 Prerequisites: GEOL A321. Special Fees. Identification and classification of igneous and metamorphic rocks, interpretation of textures, structures, and mineralogy of rocks; study of chemical and physical principles controlling the formation of rocks, importance of various rock types in economic and industrial arenas. Extensive study of hand specimens with emphasis on composition, texture, and structure.	<b>Igneous and Metamorphic Petrology</b>	<b>4 CR</b>	<b>GEOL A382</b> Contact Hours: 0 + 9 Prerequisites: GEOL A221. Special Fees. Special Note: May be repeated with change of subtitle for up to 9 credit hours. Field excursion within the United States or another country to study the local and regional geology. Field notes, rock and outcrop descriptions, mapping and field exercises required.	<b>Geologic Field Studies</b>	<b>3 CR</b>
<b>GEOL A325</b> Contact Hours: 3 + 0 Prerequisites: GEOL A322. Special Fees. Genesis, tectonic setting and properties of selected metallic ore deposits. Significant hand sample identification and paragenetic associations of ore minerals and certain ore deposits including mafic layered intrusions, hydrothermal deposits, massive sulfides, and porphyry deposits. Emphasis on origin and transport of ore bearing fluids and deposition of ore minerals.	<b>Geology of Ore Deposits</b>	<b>3 CR</b>	<b>GEOL A421</b> Contact Hours: 3 + 3 Prerequisites: GEOL A221. Special Fees. Systematics of invertebrate phyla, which are important in the geologic record. Includes biostratigraphy, paleoecology, evolution, and functional morphology. Emphasis in lab on taxonomy and evolution of all major fossil invertebrate groups.	<b>Invertebrate Paleontology</b>	<b>4 CR</b>
<b>GEOL A335</b> Contact Hours: 3 + 3 Prerequisites: GEOL A221 and [MATH A108 or MATH A109]. Corequisite: GEOL A335L. Special Fees. Origin, recognition, and interpretation of earth's primary and secondary structures with application to earth history, exploration and development of natural resources. Laboratory includes projections, analysis of structural contours, cross sections, block diagrams and graphical solutions to structural problems.	<b>Structural Geology</b>	<b>4 CR</b>	<b>GEOL A450</b> Contact Hours: 3 + 0 Prerequisites: (CHEM A106 or concurrent enrollment) and GEOL A221. Global perspective of climate change from the Quaternary to modern times. To include: interpretation of climate data and proxies, connections between oceans, landmasses, atmosphere, and extraterrestrial processes related to climate change, and past climate modifications and future climate change.	<b>Paleoclimatology and Global Change</b>	<b>3 CR</b>
<b>GEOL A340</b> Contact Hours: 3 + 0 Prerequisites: GEOL A221 and CHEM A105. Special Fees. Focus on groundwater occurrence, storage, and transport. Stream hydrographs, duration curves, groundwater recharge, and streamflow measurements. Aquifers and aquifer properties such as porosity and permeability. Hydraulic head and applications of Darcy's Law. Groundwater flow equations and groundwater flow to wells. Geology of groundwater occurrence, water chemistry, water quality, and contamination.	<b>Hydrogeology</b>	<b>3 CR</b>	<b>GEOL A452</b> Contact Hours: 3 + 3 Prerequisites: GEOL A221 and [STAT A252 or STAT A253 or STAT A307]. Special Fees. Survey of sediments including origins, classification, transportation, composition, structures, and diagenesis. Stratigraphic principles including lithostratigraphy, biostratigraphy, magnetostratigraphy, chronostratigraphy, and seismic stratigraphy. Lab includes grain size analysis, sedimentary structures, correlation, and field practicum.	<b>Sedimentology and Stratigraphy</b>	<b>4 CR</b>
<b>GEOL A350</b> Contact Hours: 3 + 3 Prerequisites: GEOL A221. Special Fees. Study of landforms and processes that affect their development, including tectonics, geologic structures, bedrock lithology, streams, glaciers, groundwater, and oceans. Laboratory focuses on formation and genesis of landforms based on evidence from topographic maps and aerial photography.	<b>Geomorphology</b>	<b>4 CR</b>	<b>GEOL A454</b> Contact Hours: 3 + 0 Prerequisites: GEOL A221. Special Fees. Examines glacial processes of erosion and deposition, and the modern and ancient landforms produced by ice. Topics include: Quaternary history of glaciers, climate fluctuation, changes in terrestrial and marine environments, and evidence and techniques used to reconstruct past environments. Weekend field trip required.	<b>Glacial and Quaternary Geology</b>	<b>3 CR</b>
<b>GEOL A360</b> Contact Hours: 3 + 0 Prerequisites: CHEM A106 and GEOL A221. Major Restriction: Must be Geology major. Registration Restrictions: BSGS majors. Introduction to principles and applications of inorganic geochemistry. Emphasis on crystal structures and substitution in crystals, equilibrium geochemistry, dissociation of acids and bases, and mineral stability. Applying the laws of thermodynamics, Eh-pH diagrams, and oxidation-reduction reactions to geologic problems. Principles of radioactivity and geochronometers for age determination. A review of applications of stable isotopes to geologic problems.	<b>Geochemistry</b>	<b>3 CR</b>	<b>GEOL A455</b> Contact Hours: 3 + 0 Prerequisites: GEOL A221. Special Fees. Examines permafrost geomorphic processes, environments and landforms. Topics include: Properties of ground ice and patterned ground, permafrost landscape dynamics, engineering and environmental problems, and impacts of climate change on permafrost systems. One weekend field trip required.	<b>Permafrost</b>	<b>3 CR</b>

## Course Descriptions

### GEOL A456                      Geoarchaeology                      3 CR

Contact Hours: 3 + 0

Prerequisites: ANTH A211 and GEOL A221.

Registration Restrictions: Completion of GER Tier 1 (basic college-level skills) courses and junior standing.

Course Attributes: UAA GER Integrative Capstone.

Special Fees.

Integration of geology and archaeology. Rock identification of lithic sources, sediment analysis of site deposits, reconstruction of paleolandscapes and application of geochronology to archaeological sites. Response to changes in resources and climate by past societies and relevance to contemporary problems and issues.

### GEOL A457                      Soil Genesis and Classification                      4 CR

Contact Hours: 3 + 3

Prerequisites: GEOL A350.

Special Fees.

Principles and applications of soil science with an emphasis on field description and interpretation of soils. Soil properties, processes, classification, soil forming factors, and engineering properties. Use of different laboratory methods and analyses will complement field studies.

### GEOL A460                      Environmental Geochemistry                      3 CR

Contact Hours: 3 + 0

Prerequisites: GEOL A360.

Special Fees.

Principles and applications of environmental geochemistry on a global scale. Geochemical cycles and chemical mass balance of the oceans. Emphasis on water cycle and geochemistry of the oceans, atmospheric and rainwater chemistry, chemical weathering of rocks and ore deposits, and river and lake geochemistry. Clay mineralogy and principles of sorption of cations and anions in geologic environments. Stable isotope fractionation and applications of isotope modeling of environmental systems. Specific examples of environmental geochemistry issues such as disposal of radioactive waste and metals. Participation in laboratory research project.

### GEOL A465                      Isotope Geochemistry                      3 CR

Contact Hours: 3 + 0

Prerequisites: CHEM A106 and GEOL A360.

May be stacked with: GEOL A665.

Special Fees.

Examine principles and applications of radiogenic and stable isotopes with emphasis on application in the hydrologic, earth, and ecosystem sciences. Focuses on both traditional and environmental aspects of isotope geochemistry and biogeochemistry and some special applications to other fields of study such as anthropology, archaeology, and forensics. A class research project will include field sampling, sample analysis, and interpretation.

### GEOL A475                      Environmental Geophysics                      3 CR

Contact Hours: 3 + 0

Prerequisites: GEOL A111 and PHYS A124.

Special Fees.

Introduction to principles and application of environmental geophysics. Emphasis on shallow geophysical techniques useful to investigate environmental problems associated with near surface geologic settings. Includes surveys and applications of potential field, electrical, electromagnetic, and seismic methods.

### GEOL A480                      Geologic Field Methods                      3 CR

Contact Hours: 0 + 9

Prerequisites: GEOL A322 and GEOL A335 and GEOL A452.

Special Fees.

Special Note: Course may count for credit towards major if geology field camp is taken elsewhere.

Introduction to principles and applications of basic geologic field methods, including construction of bedrock geologic maps and cross sections. Emphasis on field note taking, geologic mapping, stratigraphic section measurement, and construction. Students required to complete several field projects, including written summary reports.

### GEOL A481                      Alaskan Field Investigations                      3 CR

Contact Hours: 0 + 9

Prerequisites: GEOL A350 and GEOL A480.

Special Fees.

Special Note: Course fees cover lodging and camping fees. Students required to provide own food, transportation, field and camping gear.

Field excursion in southern and central Alaska. Mapping of sedimentary, metamorphic, and volcanic rocks. Mapping of Quaternary deposits from aerial photography. Construction of stratigraphic sections. Use of appropriate field techniques and tools. Exploration of Alaskan coal and gold mining, permafrost environments, Pleistocene glacial environments, tectonics and volcanic hazards.

### GEOL A482                      Geologic Field Investigations                      3 CR

Contact Hours: 0 + 9

Prerequisites: GEOL A480.

Special Fees.

Special Note: Course may count as credit towards the major if field camp is taken elsewhere. May be repeated with a change of subtitle for a maximum of 9 credits.

Field excursion within the United States or another country to conduct field exercises on bedrock and/or surficial mapping, generate cross sections from maps, measure and draw stratigraphic sections, and learn regional geology and tectonic settings.

### GEOL A490                      Advanced Topics in Geology                      1-4 CR

Contact Hours: 1-4 + 0

Prerequisites: GEOL A221.

Special Fees.

Special Note: May be repeated with a change of topic.

Detailed study of a selected topic in geology.

### GEOL A492                      Geology Seminar                      1 CR

Contact Hours: 1 + 0

Prerequisites: GEOL A221.

Special Note: May be repeated under different subtitles for a maximum of 3 credits.

Lecture series with invited professional geologists, discussion of relevant professional papers and research. Topical nature of material.

### GEOL A495                      Geology Internship                      1-3 CR

Contact Hours: 1-3 + 0

Registration Restrictions: Junior standing.

Special Note: May be repeated, but only 3 credits count towards major requirements.

Work experience in an approved position with supervision and training in various agencies and businesses. Exposes student to work environment beyond the campus setting, to acquire essential practical skills and enhance self-confidence and career direction.

### GEOL A498                      Student Research                      1-3 CR

Contact Hours: 1-3 + 0

Registration Restrictions: Faculty permission.

Special Note: May be repeated for a maximum of 6 credits.

Student research conducted on specific subjects in geology. Research topic to be approved and directed by a faculty member in the Department of Geological Sciences.

### GEOL A499                      Senior Thesis                      3 CR

Contact Hours: 0 + 9

Registration Restrictions: Senior standing. Faculty permission.

Special Note: May be repeated for a maximum of 6 credits.

Planning, preparation, and completion of senior thesis for the BS degree in Geological Sciences.

### GEOL A665                      Isotope Geochemistry                      3 CR

Contact Hours: 3 + 0

Prerequisites: CHEM A106 and GEOL A360.

Registration Restrictions: Graduate standing

May be stacked with: GEOL A465.

Special Fees.

Principles and applications of radiogenic and stable isotopes with emphasis on applications in the hydrologic, earth, and ecosystem sciences. Focus on both traditional and environmental aspects of isotope geochemistry and biogeochemistry and some special applications to other fields of study such as anthropology, archaeology, and forensics. A class research project will include field sampling, sample analysis, and interpretation. Independent research project required.

### GEOL A690                      Graduate Topics in Geology                      1-4 CR

Contact Hours: 1-4 + 0

Special Note: May be repeated with change of topic.

Intensive studies on narrowly defined topics in Geological Sciences. Emphasis on content as well as instructional techniques.

### GEOL A698                      Directed Research                      1-6 CR

Contact Hours: 0 + 3-18

Registration Restrictions: Graduate standing and permission of thesis advisor.

Thesis-specific research for interdisciplinary M.S. with emphasis in Geological Sciences. Research topic must be approved by thesis advisor and committee.



## GER - German

*Offered through the College of Arts and Sciences*

*Administration/Humanities Building (ADM) Suite 287, 786-4030*

*www.uaa.alaska.edu/languages*

### GER A101                   Elementary German I                   4 CR

Contact Hours: 4 + 0

Course Attributes: UAA GER Humanities Requirement.

Special Fees.

Introductory course for students with no previous knowledge of the German language. Develops listening, speaking, reading, and writing skills in German for effective communication at the elementary level. Students gain understanding of basic cross-cultural perspectives. Course conducted in German.

### GER A102                   Elementary German II                   4 CR

Contact Hours: 4 + 0

Prerequisites: GER A101.

Course Attributes: UAA GER Humanities Requirement.

Special Fees.

Continuation of introductory course. Further develops elementary listening, speaking, reading, and writing skills in German for effective communication. Enhances appreciation of cross-cultural perspectives. Course conducted in German.

### GER A105                  Conversational Skills Maintenance I                   1 CR

Contact Hours: 0 + 2

Registration Restrictions: Proficiency as after one semester of college-level or one year of high school study in German.

Grade Mode: Pass/No Pass.

May be stacked with: GER A205 and GER A305.

Special Fees.

Special Note: May be repeated once for credit.

A maintenance and skills enhancement course at the elementary level, designed primarily to help students of German retain what they have learned. With the focus on oral communication, the course emphasizes speaking, listening comprehension, and vocabulary building.

### GER A201                  Intermediate German I                   4 CR

Contact Hours: 4 + 0

Prerequisites: GER A102.

Course Attributes: UAA GER Humanities Requirement.

Special Fees.

Intermediate course for students with basic knowledge of German. Enhances listening, speaking, reading, and writing skills for effective communication at the intermediate level. Students critically examine diverse cultural perspectives. Course conducted in German.

### GER A202                  Intermediate German II                   4 CR

Contact Hours: 4 + 0

Prerequisites: GER A201.

Course Attributes: UAA GER Humanities Requirement.

Special Fees.

Continuation of first semester in intermediate German. Further develops listening, speaking, reading, and writing proficiency for effective communication and in preparation for advanced study of German. Students interpret diverse cultural perspectives. Course conducted in German.

### GER A205                  Conversational Skills Maintenance II                   1 CR

Contact Hours: 0 + 2

Registration Restrictions: Proficiency as after two semesters of college-level or two years of high school study in German.

Grade Mode: Pass/No Pass.

May be stacked with: GER A105 and GER A305.

Special Fees.

Special Note: May be repeated once for credit.

A maintenance and skills enhancement course for intermediate students of German, designed primarily to help them retain and solidify what they learned in Elementary German. With the focus on communication, the course emphasizes speaking, listening comprehension, and vocabulary building.

### GER A301                  Advanced German I                   4 CR

Contact Hours: 4 + 0

Prerequisites: GER A202 with minimum grade of C.

Registration Restrictions: If prerequisite not met, students can gain entrance to course with departmental approval.

Course Attributes: UAA GER Humanities Requirement.

Special Fees.

Advanced German course in refining listening, speaking, reading, writing, and analytical skills for effective interaction in communicatively complex situations. Students critically analyze diverse cultural topics.

### GER A302                  Advanced German II                   4 CR

Contact Hours: 4 + 0

Prerequisites: GER A301 with minimum grade of C.

Registration Restrictions: If prerequisite not met, students can gain entrance to course with departmental approval.

Course Attributes: UAA GER Humanities Requirement.

Special Fees.

Continuation of first semester in advanced German. Further refines listening, speaking, reading, writing, and analytical skills for effective interaction in communicatively complex situations. Students critically analyze diverse cultural topics.

### GER A305                  Conversational Skills Maintenance III                   1 CR

Contact Hours: 0 + 2

Registration Restrictions: Proficiency as after four semesters of college-level or four years of high school study in German.

May be stacked with: GER A105 and GER A205.

Special Fees.

Special Note: May be repeated once for credit.

A maintenance and skills enhancement course at the advanced level, designed primarily to help students of German to retain and to consolidate what they have learned. With the focus on oral communication, the course emphasizes speaking, listening comprehension and vocabulary building.

### GER A310                  Selected Topics: Literary Trends and Traditions                   3 CR

Contact Hours: 3 + 0

Prerequisites: GER A302 with minimum grade of C.

Special Fees.

Special Note: May be repeated for credit with a change of subtitle.

Focuses on diverse literary traditions of multiple German-speaking communities. Critical analysis through a variety of disciplinary methodologies (e.g. historical, cultural, artistic); terminology also explored and developed. Enhances German language skills in writing, reading, speaking, listening and cultural literacy.

### GER A490                  Selected Topics in German Literature                   3 CR

Contact Hours: 3 + 0

Registration Restrictions: Three years of college German or equivalent.

Special Fees.

Special Note: Will be offered alternate semesters or years. May be repeated for credit if topic varies.

An advanced course for students interested in German literature with sufficient language proficiency to read and discuss assigned readings in German. Focus may be on periods, genres, individual authors, groups of authors, movements, works from different periods dealing with the same topics, or individual works. Conducted in German.

## GIS - Geographic Information Systems

*Offered through the School of Engineering*

*Engineering Building (ENGR), Room 201, 786-1900*

*www.engr.uaa.alaska.edu*

### GIS A123                  Introduction to Geographic Information Systems (GIS)                   1 CR

Contact Hours: 1 + 0.5

Registration Restrictions: Instructor approval.

Grade Mode: Pass/No Pass.

Special Fees.

Introduces key aspects of Geographic Information Systems (GIS). Basic data structures and functionalities will be explored. Introduction to software interface. Discussion of maps, coordinate systems, and metadata. Students will gain a brief working knowledge of a GIS.

### GIS A124                  Introduction to GIS and Remote Sensing                   1 CR

Contact Hours: 1 + 0.5

Registration Restrictions: Instructor approval.

Grade Mode: Pass/No Pass.

Special Fees.

Introduces the integration of Geographic Information Systems (GIS) and Remote Sensing. Image data will be imported into a GIS and analytical applications will be explored.

### GIS A125                  GPS for GIS                   1 CR

Contact Hours: 1 + 0

Registration Restrictions: Instructor approval.

Grade Mode: Pass/No Pass.

Special Fees.

Introduces the utility of Global Positioning Systems (GPS) and GPS dataloggers for the collection of accurate locations and other data during field operations, and the downloading and use of the GPS data in a Geographic Information System (GIS).

## Course Descriptions

<p><b>GIS A127 Introduction to Metadata for GIS</b> 1 CR            Contact Hours: 1 + 0            Registration Restrictions: Instructor approval.            Grade Mode: Pass/No Pass.            Special Fees.            Introduces key aspects of GIS metadata, or the "data about data." Topics include reading and writing metadata and understanding metadata standards and tools.</p>	<p><b>GIS A371 GIS Applications I</b> 3 CR            Contact Hours: 1 + 4            Prerequisites: GIS A268 with minimum grade of C.            Detailed investigation of application areas of GIS, together with applications methodologies. Topics may include applications of GIS in public health and epidemiology, decision-support processes, geology, transportation, utility and facility management, temporal analysis, business, cadastral system, logistics, and natural resource management. Students will complete several application projects during the semester.</p>
<p><b>GIS A268 Elements of Geographic Information Systems (GIS)</b> 4 CR            Contact Hours: 2 + 4            Special Fees.            Introduction to fundamentals of GIS, including common uses and technical concepts, e.g., data structures (raster and vector), data sources, metadata, databases, coordinate systems, geocoding, spatial analysis, georeferencing, cartographic design and map compilation. Investigation of spatial data quality and accuracy. Application of GIS analysis functions and standard query languages. Application of GIS to real-world problems.</p>	<p><b>GIS A433 Coastal Mapping</b> 3 CR            Contact Hours: 2 + 2            Prerequisites: GIS A366 with minimum grade of C.            Registration Restrictions: Prerequisites may be waived by instructor based on student's prior experience.            Applying spatial reasoning and information to coastal mapping projects. Supporting engineering and decision making in the coastal zone with GIS and mapping tools. Joining upland and bathymetric data sets. Resolving datum issues.</p>
<p><b>GIS A295 Internship in Geographic Information Systems I</b> 3 CR            Contact Hours: 0 + 15            Prerequisites: GIS A268 with minimum grade of C.            Grade Mode: Pass/No Pass.            Special Fees.            Entry-level professional experience in geographic information systems through an internship with a local employer. Typical entry-level tasks to be conducted for employer include: data entry, data coding and cleaning, importing and exporting data, creation of annotation, and map compilation.</p>	<p><b>GIS A458 Design and Management of Spatial Information</b> 3 CR            Contact Hours: 2 + 2            Prerequisites: GIS A366 with minimum grade of C.            Spatial database system philosophy and concepts including decision making criteria, design, planning, implementation and management. Discussion of spatial data standards, legal issues, and national spatial data policies. Project implementation and management. GIS in organizational contexts. Human-computer interactions and GIS.</p>
<p><b>GIS A366 Spatial Information Analysis and Modeling</b> 3 CR            Contact Hours: 2 + 2            Prerequisites: GIS A268 with minimum grade of C and STAT A253 with minimum grade of C.            Registration Restrictions: Prerequisites may be waived by instructor based on student's prior experience.            Analysis and modeling of spatial and attribute data: theoretical foundation and practical applications. Spatial and non-spatial databases, SQL, retrieval and indexing. Spatial statistics and their application in GIS analysis. Basic network analysis, surface interpolation and modeling. Error modeling and representation in GIS.</p>	<p><b>GIS A460 GIS Senior Project</b> 3 CR            Contact Hours: 0 + 9            Registration Restrictions: Students seeking a Bachelor of Science in Geomatics need senior standing in Geomatics program with all 300- level courses completed or instructor approval. Students seeking a Certificate in GIS must complete all core classes or instructor approval.            Special Fees.            Senior project in GIS (geographic information systems). Research, design, data compilation, analyses, and mapping. Professional standards and ethical concerns for GIS professionals.</p>
<p><b>GIS A367 GIS and Remote Sensing</b> 3 CR            Contact Hours: 2 + 2            Prerequisites: GEO A167 with minimum grade of C and GIS A268 with minimum grade of C.            Special Fees.            Develops the students' ability to use remotely sensed data within the framework of GIS. Covers basic physics theory required for the use of remotely sensing technology. Includes practical applications of the science using remotely sensed data, including the use of industry standard GIS software packages.</p>	<p><b>GIS A468 Integration of Geomatic Technologies</b> 3 CR            Contact Hours: 2 + 2            Prerequisites: GEO A359 with minimum grade of C and GEO A365 with minimum grade of C and GIS A268 with minimum grade of C.            Integration of GPS, INS, GIS, photogrammetry, remote sensing, terrestrial surveying and related technology and techniques. Scripting and development in various geo-spatial packages. Data translation/transfer techniques. Web-based approaches to spatial information management and dissemination. Mobile and server technologies for spatial information.</p>
<p><b>GIS A369 Land Information Systems</b> 3 CR            Contact Hours: 2 + 2            Prerequisites: GIS A268 with minimum grade of C and GEO A267 with minimum grade of C.            History and philosophy of land, surveying, and land information systems in North America and other regions. Land data systems. Overview of methods for describing and interpreting land descriptions as well as data acquisition, methods, design, and applications for LIS. Issues of accuracy assessment, public lands, and information.</p>	<p><b>GIS A471 GIS Applications II</b> 4 CR            Contact Hours: 1 + 6            Prerequisites: GIS A366 with minimum grade of C.            Detailed investigation of advanced application areas of GIS. Topics may include socio-economic, decision-support, web-based, archaeological, justice, temporal, agricultural, land parcel, business, logistics and natural resource applications. Students will complete several application projects during the semester.</p>
<p><b>GIS A370 GIS and Remote Sensing for Natural Resources</b> 3 CR            Contact Hours: 2 + 2            Prerequisites: GEO A167 with minimum grade of C and GIS A367 with minimum grade of C.            Special Fees.            An investigation of natural resources and ecosystem management and the application of geomatic technologies for their assessment and interpretation. Data gathered from a variety of sources, including remote sensing, ground truthing, GPS, and databases, will be combined into a GIS and evaluated with image analysis software to explore management and land use planning strategies. Environmental impact assessments, environmental modeling, and rapid ecological assessment (REA) in decision making for natural resource planning and management.</p>	<p><b>GIS A490 Selected Advanced Topics in GIS</b> 1-6 CR            Contact Hours: 1-6 + 0            Registration Restrictions: Instructor approval.            Special Fees.            Advanced theoretical or practical concepts in GIS. Specific course content is determined by student needs, program needs, and developments in technology.</p>
	<p><b>GIS A495 Internship in Geographic Information Systems II</b> 3 CR            Contact Hours: 0 + 15            Prerequisites: GIS A268 with minimum grade of C and GIS A366 with minimum grade of C.            Grade Mode: Pass/No Pass.            Special Fees.            Advanced professional experience in geographic information systems through an internship with a local employer. Typical tasks to be conducted for employer include: data entry, data coding and cleaning, importing and exporting data, creation of annotation, georeferencing, rubbersheeting, spatial analyses, documentation of metadata, and map compilation.</p>

## GUID - Guidance

*Offered through the Advising and Testing Center  
University Center (UC), Room 112, 786-4500  
www.uaa.alaska.edu/advising-testing*

**GUID A101 Introduction to Peer Advising 3 CR**  
Contact Hours: 3 + 0

Introduction to the peer advising model with emphasis on the information dissemination and paraprofessional counseling aspects. This course is the training class for the peer advising program.

**GUID A104 Student Association Leadership I 1-3 CR**  
Contact Hours: 2 + 2

Survey of student leadership topics including techniques of organizational planning, management, program planning, budgeting, group dynamics, communication and leadership theories and techniques. Application of techniques through program/service projects utilizing the student association as a laboratory.

**GUID A150 Creating Success in College 3 CR**  
Contact Hours: 3 + 0  
Special Fees.

Designed to assist incoming students make a successful transition from high school, home or the workplace to college. Adopts a seminar approach requiring students to use a textbook, listen to lectures, participate in discussions, activities, and complete a variety of written and oral assignments. Adjustment and transition issues -- academic, career, intrapersonal and interpersonal -- are addressed with a structured, content-based curriculum, flexible enough to promote the exploration and resolution of individual concerns.

**GUID A150A Survival Skills/College 1 CR**  
Contact Hours: 1 + 0

Grade Mode: Pass/No Pass.  
Offered only at Kenai Peninsula College.

Participation in a variety of activities including, reading, notetaking and follow-up, large and small group discussions and activities, short written assignments and/or quizzes.

## HCA - Health Care Assisting

*Offered through Kenai Peninsula College  
34820 College Road, Soldotna, Alaska 99669, (907) 262-0330  
www.kpc.alaska.edu*

**HCA A103 Personal Care Attendant 4 CR**  
Contact Hours: 2.5 + 3  
Special Fees.

Special Note: Current immunizations, TB testing, and current CPR/First Aid certification are required for completion of the course.

Special Note: Upon successful completion, students are eligible to apply for a State of Alaska Personal Care Attendant (PCA) exam. Students successfully completing the exam are awarded a state-provided certification of completion for PCA training.

Introduces basic personal care assisting skills and knowledge. Prepares entry-level health care workers to provide care in homes and facilities, and to become efficient health care team members.

**HCA A105 Certified Nurse Aide 6-8 CR**  
Contact Hours: 4 + 6-8

Registration Restrictions: English placement: PRPE A086 or higher; Math placement: MATH A055 or higher.  
Special Fees.

Prepares the student to be an Alaska State Certified Nurse Aide. Includes CPR training, medical terminology, basic anatomy, first aid and skills labs. Students receive on-site clinical training at local health care facilities.

## HIST - History

*Offered through the College of Arts and Sciences  
Administration/Humanities Building (ADM), Room 147, 786-1539  
www.uaa.alaska.edu/history*

**HIST A101 Western Civilization I 3 CR**  
Contact Hours: 3 + 0

Course Attributes: UAA GER Humanities Requirement.

A survey of the developments in Western Civilization from its origins in the ancient Near East to 1650. The major social, political, economic, intellectual and cultural characteristics will be emphasized.

**HIST A102 Western Civilization II 3 CR**  
Contact Hours: 3 + 0

Course Attributes: UAA GER Humanities Requirement.

A survey of the developments in Western Civilization from 1650 to the present. The major social, political, economic, intellectual and cultural characteristics will be emphasized.

**HIST A121 East Asian Civilization I 3 CR**  
Contact Hours: 3 + 0

Course Attributes: UAA GER Humanities Requirement.

Provides a broad understanding of the historical, cultural, and social development of Chinese, Japanese, and Korean civilization from their prehistoric origins through approximately 1600 (the decline of the Ming Dynasty in China, the successful unification of Japan under the Tokugawa, and the end of the Japanese invasions of Korea).

**HIST A122 East Asian Civilization II 3 CR**  
Contact Hours: 3 + 0

Course Attributes: UAA GER Humanities Requirement.

Provides a broad understanding of the historical, cultural, and social development of East Asian civilization from approximately 1600 (the rise of the Qing Dynasty in China, the successful unification of Japan under the Tokugawa, and the revival of the Yi Dynasty in Korea) through the twentieth century.

**HIST A131 History of United States I 3 CR**  
Contact Hours: 3 + 0

Course Attributes: UAA GER Humanities Requirement.

A chronological overview of United States history from ancient America through the Civil War. Examines social, political, and economic forces that have shaped the country during the period. Students will be introduced to primary sources and interpretations in American history.

**HIST A132 History of United States II 3 CR**  
Contact Hours: 3 + 0

Course Attributes: UAA GER Humanities Requirement.

A chronological overview of United States history from Reconstruction to the present. Examines social, political, and economic forces that have shaped the country during the period. Students will be introduced to primary sources and interpretations in American history.

**HIST A225 Ancient History 3 CR**  
Contact Hours: 3 + 0

Registration Restrictions: HIST A101 recommended.

A survey of the origins and development of western civilization from the neolithic revolution in the ancient Near East through the end of the Roman Empire. Emphasis on interrelationships of political, social, economic, cultural, and intellectual movements in various cultures.

**HIST A226 Medieval History 3 CR**  
Contact Hours: 3 + 0

Registration Restrictions: HIST A101 recommended.

A survey of the evolution of western civilization from end of the Roman Empire to beginnings of the Renaissance. Emphasis on interrelationships of political, social, economic, cultural, and intellectual movements.

**HIST A237 American Civil War 3 CR**  
Contact Hours: 3 + 0

Study of North-South differences causing American Civil War, war itself in considerable detail, and legacy of that war for today.

**HIST A238 Black History I 3 CR**  
Contact Hours: 3 + 0

Afro-American history from colonial times to 1865. Social, economic, psychological, religious, and racial aspects of Africa. Slave trade, slavery, slave trading nations, and Civil War. Impact of various racial theories and practices on black/white relations.

**HIST A239 Black History II 3 CR**  
Contact Hours: 3 + 0

Afro-American history from 1865 to present. Impact of technology, changing social and economic conditions, and international scene on Black Americans. Consideration of leaders, organizations, concepts and issues that affect blacks and society at large.

**HIST A244 Studies in Film History 3 CR**  
Contact Hours: 3 + 0

May be stacked with: HIST A444.

Special Fees.

Special Note: May be repeated once for credit with a change of subtitle.

Selected topics in motion picture history. Ranges from genre studies (musicals, comedies, science fiction) to special areas of film history (animation, special effects, major stars and studios, significant directors). Subtitle varies.

## Course Descriptions

### **HIST A257A The Alaska-Yukon Gold Rush 3 CR**

Contact Hours: 3 + 0

Nineteenth-century gold rushes in California, Nevada, the Rocky Mountains, Black Hills (Dakota Territory), and British Columbia are examined, culminating in the Alaska-Yukon Gold Rush Era of 1880-1920.

### **HIST A261 Russian History 3 CR**

Contact Hours: 3 + 0

A survey of Russian history from early origins to modern Russia. Topics include Kievan Rus; Mongol Era; Rise of Moscow; Romanov Russia and Serfdom; Revolutionary Russia; Soviet Union and Russian Federation.

### **HIST A306 The Roman Empire 3 CR**

Contact Hours: 3 + 0

Prerequisites: HIST A101 and HIST A225.

The Roman Empire from the assassination of Julius Caesar to the "fall" of the Empire in AD 476. Its principal focus is upon the political and social history of the Empire.

### **HIST A310 Renaissance/Reformation Europe 3 CR**

Contact Hours: 3 + 0

Prerequisites: HIST A101.

Examines the key political, social, economic and cultural developments in Renaissance and Reformation Europe. Emphasis will be placed on the medieval legacy; Renaissance art, power and family life; European encounters and conquests; the emergence of a new world economy; religious reform and revolution; and daily life in Reformation Europe.

### **HIST A312 Early Modern Europe: 1600-1789 3 CR**

Contact Hours: 3 + 0

Prerequisites: HIST A102.

Examines the key political, social, economic and cultural developments in Early Modern European history. Special emphasis will be placed on religious warfare and the military revolution; absolutism and constitutionalism; colonies and empires; commercial and agricultural revolutions; scientific revolution and enlightenment; witchcraft; social estates and daily life; and the Ancien Regime on the eve of Revolution.

### **HIST A314 Nineteenth Century Europe 3 CR**

Contact Hours: 3 + 0

Prerequisites: HIST A102.

Examines the key political, social, economic and cultural developments in 19th century Europe. Special emphasis will be placed on the French and Napoleonic revolution; restoration and reaction; industrialization and urbanization; romanticism, liberalism and socialism; nationalism and national unification; imperialism; fin de siècle culture; and daily life.

### **HIST A316 Twentieth Century Europe 3 CR**

Contact Hours: 3 + 0

Prerequisites: HIST A102.

Examines the key political, social, economic, intellectual and cultural developments in 20th century Europe. Special emphasis will be placed on the broad historical forces at work during the 20th century--such as war, revolution, fascism, communism, democracy, modernization, decolonization and globalism - and how both elites and ordinary people responded to a changing world.

### **HIST A320 The Rise, Fall, and Reinvention of the Samurai 3 CR**

Contact Hours: 3 + 0

Prerequisites: HIST A121 and HIST A122 and HIST A231.

An analysis of the historical origins, rise to prominence, dominance, and the fall of the warrior caste of Japan. Principal focus on the constant reinvention of the samurai and the "spirit of the samurai" was used in Japan's modernization.

### **HIST A321 Modern China 3 CR**

Contact Hours: 3 + 0

Prerequisites: HIST A121 or HIST A122.

Chinese history from the middle of the Qing (Manchu) Dynasty, about 1800, through the 1990s. Designed to provide a broad understanding of the historical, cultural, and social development of China as it made the transition to a modern state.

### **HIST A322 Modern Japan 3 CR**

Contact Hours: 3 + 0

Prerequisites: HIST A121 or HIST A122.

Japanese history from the last decades of the Tokugawa Shogunate, about 1800, through the 1990s. Designed to provide a broad understanding of the historical, cultural, and social development of Japan as it made the transition to a modern state.

### **HIST A323 Communist China 3 CR**

Contact Hours: 3 + 0

Prerequisites: HIST A122 and HIST A321.

Analysis of the historical origins, rise, struggles, and eventual triumph of the Chinese Communist Party in taking control of China in 1949. Examines the wrenching upheavals of the People's Republic under Mao Zedong and its transformation under Deng Xiaoping from 1949 through the 1990s. The principal focus will be on the constant reinvention of Chinese communism to face perceived challenges in China's modernization, sometimes with spectacular results and at other times with disastrous consequences.

### **HIST A325 Northeast Asia in 21st Century 3 CR**

Contact Hours: 3 + 0

Registration Restrictions: Junior standing. Completion of GER Tier 1 (basic college-level skills) courses. Six credits of Tier 2 GEOG, HIST, or PS courses.

Crosslisted with: INTL A325 and PS A325.

Course Attributes: UAA GER Integrative Capstone.

An interdisciplinary examination and analysis of Northeast Asia covering China, the Koreans, and Japan, designed to provide students with the means to understand how the societies of this region have developed separate and distinct identities despite their common cultural and philosophic roots.

### **HIST A330 Russia in East Asia 3 CR**

Contact Hours: 3 + 0

Prerequisites: HIST A102 or HIST A121.

History of the relationships between Russia and its neighbors in East Asia and the Pacific. Among the major themes to be explored are the impact of the Mongol conquest, contact and colonization in the "borderlands," historical debates on the importance of East Asia and the Pacific to Russia, and the articulation and pursuit of Russian geo-political interests in the region.

### **HIST A341 History of Alaska 3 CR**

Contact Hours: 3 + 0

Prerequisites: HIST A132.

Registration Restrictions: HIST A132 equivalent accepted with instructor permission.

Course Attributes: UAA GER Humanities Requirement.

An introduction to Alaska and its relationship to America and the world, including Alaska geography, Alaska Native anthropology, and a detailed chronological history of the 49th state. Topics include Russian exploration, occupation, and management; Native-Russian relations; the Alaska Purchase; U.S. military; missionaries; gold rushes; territorial era; statehood; Native land claims and corporations; oil development and the disposition and management of Alaska lands.

### **HIST A345 Across This Land: The Historical Geography of North America 3 CR**

Contact Hours: 3 + 0

Prerequisites: HIST A131.

Crosslisted with: GEOG A345.

Special Note: GEOG A205 recommended.

Explores the European settlement of North America (U.S. and Canada), the impact of geography on this settlement, and the impress of culture and political process on the land. A significant part of the course compares and contrasts the American and Canadian geographic experience and the creation of distinct regional cultures.

### **HIST A346 History of Native Peoples of United States and Canada 3 CR**

Contact Hours: 3 + 0

Prerequisites: HIST A131 or HIST A132.

An examination of themes in the history of indigenous peoples of the U.S. and Canada from pre-contact through the twentieth century, with an emphasis on Native voices and perspectives.

### **HIST A355 Major Themes in US History 3 CR**

Contact Hours: 3 + 0

Prerequisites: HIST A131 and HIST A132.

Examines major themes that have shaped and impacted American history and contemporary society. Such themes may include, but are not limited to, democracy, global relations, and multiculturalism. Course emphasizes reading and analysis of primary sources to discern and evaluate the human experience.

### **HIST A360 Modern Economic History 3 CR**

Contact Hours: 3 + 0

Prerequisites: HIST A102 and ECON A201.

Crosslisted with: ECON A360.

Examines the role of geography, institutions, technology, and trade in the evolution of the modern economy. Emphasizes the long-run economic performance of Europe and the US. Also covers historic differences between the West and other parts of the world.

<b>HIST A377</b>	<b>Historiography: The Uses and Abuses of History</b>	<b>3 CR</b>	<b>HIST A424</b>	<b>Imperial Russian History</b>	<b>3 CR</b>
<p>Contact Hours: 3 + 0 Prerequisites: [HIST A101 and HIST A102] or [HIST A131 and HIST A132]. Explores how historians “do” history by examining the various historical methods, theories, and approaches used to interpret and to understand the human past and its significance. Investigates the relationships between experiencing, remembering, and reconstructing the past.</p>			<p>Contact Hours: 3 + 0 Prerequisites: HIST A102. Explores the socio-economic, political, and cultural foundations of Imperial Russia from the seventeenth century to the early twentieth century. Themes include the nature of autocracy, the “golden age” of the aristocracy, the role of serfdom, the rise of revolutionary ideology and action, the impact of war, and the relationship between state and society.</p>		
<b>HIST A382</b>	<b>American Women’s History</b>	<b>3 CR</b>	<b>HIST A425</b>	<b>History of the Soviet Union</b>	<b>3 CR</b>
<p>Contact Hours: 3 + 0 Prerequisites: HIST A131 or HIST A132. An exploration of the historical status and role of women in American society. Emphasizes such themes as women’s work and labor; women’s political activism; historical definitions of feminism and sexuality; the religious, legal, and cultural prescriptions of women’s “proper” role in American society; and the influences of race, class, and ethnicity in women’s historical experience.</p>			<p>Contact Hours: 3 + 0 Prerequisites: HIST A102. Explores the creation, maintenance, and collapse of the Soviet Union, beginning with the nineteenth-century antecedents of the Russian Revolutions of 1917. Examines major events, personalities, and ideas that played a leading role in constructing Soviet society from 1917 to 1991. Themes include the triumph of Bolshevism, the creation of “Soviet society,” Stalinism and its legacies, and the dismantling of the Soviet regime.</p>		
<b>HIST A390A</b>	<b>Themes in World History</b>	<b>3 CR</b>	<b>HIST A427</b>	<b>Post-Soviet Culture and Society</b>	<b>3 CR</b>
<p>Contact Hours: 3 + 0 Prerequisites: GEOG A101 and [HIST A101 or HIST A102 or HIST A121 or HIST A122 or HIST A131 or HIST A132]. Registration Restrictions: Completion of GER Tier 1 (basic college-level skills) courses and junior standing. Course Attributes: UAA GER Integrative Capstone. Special Note: May be repeated once for credit with a change of subtitle. Provides students with opportunities to analyze patterns of meaning in the accumulated record of the human experience from prehistory to the present, contemplated on the most inclusive scale, that of the entire world. The course is comparative and interdisciplinary.</p>			<p>Contact Hours: 3 + 0 Prerequisites: HIST A102. Registration Restrictions: Completion of all Tier I GER (basic college-level skills) courses; and Junior standing. Prerequisite HIST A102 or any RUSS prefix course. Crosslisted with: RUSS A427. Course Attributes: UAA GER Integrative Capstone. Interdisciplinary examination and analysis of contemporary Russian culture and society. Explores major themes in post-Soviet society including shifting identities and changing social, cultural, political, and economic realities, and examines how these are expressed in a variety of contemporary sources. Conducted in English.</p>		
<b>HIST A401</b>	<b>The History of Warfare</b>	<b>3 CR</b>	<b>HIST A431</b>	<b>America: Colonies and Revolution</b>	<b>3 CR</b>
<p>Contact Hours: 3 + 0 Prerequisites: HIST A101 and HIST A102. The history of warfare from the classical age to the present. Examines theories of the origins of war; social, economic, and political organization for war; technology and weapons; administration and logistics; asymmetrical conflict; strategic and tactical systems; war and revolution; and the impact of nuclear weapons.</p>			<p>Contact Hours: 3 + 0 Prerequisites: HIST A131. An American history course that covers the period from the early 1600s to 1801. The two main themes are the interaction between different ethnic and cultural groups, and the creation and development of various political, economic, social, and cultural institutions in the United States.</p>		
<b>HIST A402</b>	<b>The Second World War</b>	<b>3 CR</b>	<b>HIST A434</b>	<b>Early National Period, 1800-1850</b>	<b>3 CR</b>
<p>Contact Hours: 3 + 0 Prerequisites: HIST A102 or HIST A122. The origins of the war in Europe and Asia. The grand strategies of the belligerents, the principal military operations, the relationship between science and war, and the mobilization of societies and economies for total war. Wartime diplomacy and the postwar settlements are also emphasized.</p>			<p>Contact Hours: 3 + 0 Prerequisites: HIST A131. Examines the political, economic, social, and cultural developments in American history from 1800-1850.</p>		
<b>HIST A411</b>	<b>History of Modern Germany</b>	<b>3 CR</b>	<b>HIST A437</b>	<b>Slavery and the Civil War</b>	<b>3 CR</b>
<p>Contact Hours: 3 + 0 Prerequisites: HIST A102. Examines the key political, social, economic and cultural developments in German history from 1850 to present. Focuses on 19th century unification, Imperial Germany, the Weimar Republic, Nazism and World War II, division and the Cold War, the two postwar Germanies, and contemporary re-unified Germany.</p>			<p>Contact Hours: 3 + 0 Prerequisites: HIST A131. Explores political, economic, ideological, social and cultural aspects of slavery in the ante-bellum United States, and the causes, progress, and consequences of the American Civil War.</p>		
<b>HIST A415</b>	<b>Anglo-Saxons and Vikings: History &amp; Geography in Early Medieval North Atlantic</b>	<b>3 CR</b>	<b>HIST A440</b>	<b>The American West Since 1850</b>	<b>3 CR</b>
<p>Contact Hours: 3 + 0 Prerequisites: HIST A101. Crosslisted with: GEOG A415. Special Note: GEOG A205 recommended. A study of Anglo-Saxon and Viking society, territorial expansion, and settlement from the 7th-11th centuries. Focus on historical impacts on the human landscape, political arrangement, and the effects of climate and environmental modification on population growth and migration.</p>			<p>Contact Hours: 3 + 0 Prerequisites: HIST A131 and HIST A132. Study of major topics in Western American history, including economic, political, social, and cultural themes, and the historiography of the American West.</p>		
<b>HIST A418</b>	<b>Tudor and Stuart England</b>	<b>3 CR</b>	<b>HIST A444</b>	<b>Advanced Studies in Film History</b>	<b>3 CR</b>
<p>Contact Hours: 3 + 0 Prerequisites: HIST A101. The history of England from the accession of Henry VII to the death of Anne. Major topics are the development of modern instruments of government, the English Reformation, and the ensuing religious struggle, the Civil War and the Glorious Revolution, and the establishment of parliamentary government.</p>			<p>Contact Hours: 3 + 0 Class Standing Restriction: Must be Junior or Senior. Registration Restrictions: Junior standing. May be stacked with: HIST A244. Special Note: May be repeated once for credit with a change of subtitle. Only 3 credits of HIST A444 may be applied to either a major or minor in history. Advanced studies in selected topics in motion picture history. Topics range from genre studies (musicals, comedies, science fiction) to special areas of film history (animation, special effects, major stars and studios, significant directors). Subtitle varies.</p>		
<b>HIST A423</b>	<b>Medieval Russian History</b>	<b>3 CR</b>	<b>HIST A451</b>	<b>Gilded Age and Progressive Era America, 1877-1917</b>	<b>3 CR</b>
<p>Contact Hours: 3 + 0 Prerequisites: HIST A101. Explores the socio-economic, political, and cultural foundations of Medieval Russia beginning with ancient Slavic settlements and foreign invasions and concluding with the creation of the Romanov dynasty in the 17th century. Major topics include the impact of foreign invasions (e.g. Mongols), the influence of the Byzantine Empire, the rise of Muscovy, and the internal dynamics of Muscovite society.</p>			<p>Contact Hours: 3 + 0 Prerequisites: HIST A132. Examines the key political, social, economic and cultural developments in United States history from 1877 to 1917. Emphasis on the social and cultural developments that led to the rise of modern America: industrialization, reform movements, labor issues, and political evolution of the government.</p>		

## Course Descriptions

### HIST A452 America in War and Peace, 1917-1945 3 CR

Contact Hours: 3 + 0

Prerequisites: HIST A132.

Examines nearly three decades in U.S. history characterized by the emergence of modern America, a process propelled by numerous crises. This course explores how the American people and their elected representatives responded to the multiple national emergencies of wars and depression as well as the critical political and cultural legacies of those three decades.

### HIST A453 America in the Cold War Era, 1945-1992 3 CR

Contact Hours: 3 + 0

Prerequisites: HIST A132.

Examines the second half of the twentieth century as the United States developed global "superpower" status. Focuses on America's increasingly international role as well as the domestic, cultural and political impact of Cold War policies. Explores how American people and their representatives acted and reacted during the era of McCarthyism, the Civil Rights movement, Watergate, nuclear arms build-up, Vietnam, and Reaganomics.

### HIST A477 Senior Seminar 3 CR

Contact Hours: 3 + 0

Prerequisites: HIST A377.

Registration Restrictions: Junior standing.

Research methodology for senior history majors culminating in preparation of a major research paper, utilizing primary and secondary research material on specific topics based on the expertise of department faculty.

### HIST A478 Studies in Early American History 3 CR

Contact Hours: 3 + 0

Prerequisites: HIST A131.

Special Note: May be repeated twice for credit with a change of subtitle.

An examination of selected fundamental topics in early American history. Areas will be studied as student need and faculty expertise indicate. Subtitle varies.

### HIST A479 Studies in Modern American History 3 CR

Contact Hours: 3 + 0

Prerequisites: HIST A131 and HIST A132.

Special Note: May be repeated twice for credit with a change of subtitle.

An intensive examination of selected fundamental topics in modern American history. Specific areas will be treated as student need and faculty expertise indicate. Subtitle varies.

### HIST A486 Studies in Modern Europe 3 CR

Contact Hours: 3 + 0

Prerequisites: HIST A102.

Special Fees.

Special Note: May be repeated twice for credit with a change of subtitle.

A study of selected important topics in modern European history including World War I, European Fascism and National Socialism, European Socialism, and others. Specific areas will be treated as student need and faculty expertise indicate. Subtitle varies.

### HIST A690 Studies in History 3 CR

Contact Hours: 3 + 0

Registration Restrictions: Graduate standing.

Special Note: May be repeated for credit with a change in subtitle.

An examination of an aspect of history from the perspective of a major field in the discipline.

## HLTH - Health

*Offered through the Community & Technical College*

*Allied Health Sciences Building (AHS), Room 161, 786-4894*

*[www.uaa.alaska.edu/ctc/programs/alliedhealth](http://www.uaa.alaska.edu/ctc/programs/alliedhealth)*

### HLTH A101 Introduction to Health Occupations 3 CR

Contact Hours: 2 + 2

Special Fees.

Introduces basic knowledge and skills of health care occupations including principles of infection control, medical office procedures, general patient care, professionalism, cardiopulmonary resuscitation and first aid. Provides laboratory component for development of associated clinical skills. Includes introduction to health care facilities and careers in health care.

## HNRS - Honors

*Offered through the University Honors College*

*Edward and Cathryn Rasmuson Hall (RH), Room 115, 786-1086*

*[www.uaa.alaska.edu/honors](http://www.uaa.alaska.edu/honors)*

### HNRS A191 Freshman Honors Tutorial 1 CR

Contact Hours: 1 + 0

Registration Restrictions: Registration limited to students admitted to the Forty-Ninth State Fellows Program, and also open to students enrolled in the University Honors College who have permission to register from the University Honors College.

Special Note: Subtitle varies; may be repeated once for credit with a different subtitle. Concurrent enrollment is required in the associated course whose title is the same as the subtitle of HNRS A191.

Offers freshman-level intensive reading, writing, and discussion relating to the content of another course with which it is associated; the associated course varies from term to term. Students receive additional instruction in interpreting texts, recognizing distinctions and explaining them in expository writing, and defending their opinions in class discussion.

### HNRS A192 Honors Seminar: Enduring Books 3 CR

Contact Hours: 3 + 0

Registration Restrictions: Registration limited to students admitted to the University Honors College, or to students who have permission to register from the University Honors College.

Course Attributes: UAA GER Humanities Requirement.

Special Note: May be repeated once for credit under a different subtitle. May be used only once for GER Humanities.

Honors seminar focusing on the directed reading of a single book of enduring significance.

### HNRS A209 Participatory Action Research 3 CR

Contact Hours: 3 + 0

Registration Restrictions: 3 credits of Written Communication GER with a minimum grade of C and Oral Communication GER with a minimum grade of C. Quantitative Skills GER is recommended. Requires instructor permission.

Participatory action research (PAR) is a faculty-student collaborative process of inquiry and action for change in response to organizational or community problems. Overview of the PAR process, plus examination of the democratizing and emancipatory power of PAR.

### HNRS A291 Sophomore Honors Tutorial 1 CR

Contact Hours: 1 + 0

Prerequisites: HNRS A191 and HNRS A192.

Registration Restrictions: Registration limited to students admitted to the Forty-Ninth State Fellows Program, and also open to students enrolled in the University Honors College who have permission to register from the University Honors College.

Special Note: Subtitle varies; may be repeated once for credit with a different subtitle. Concurrent enrollment is required in the associated course whose title is the same as the subtitle of HNRS A291.

Offers sophomore-level intensive reading, writing, and discussion relating to the content of another course with which it is associated; the associated course varies from term to term. Students receive additional instruction in examining arguments in the readings, demonstrating their grasp of questions in expository writing, and using these skills in class discussion.

### HNRS A292 Honors Seminar in Social Science 3 CR

Contact Hours: 3 + 0

Registration Restrictions: Registration limited to students admitted to the University Honors College, or to students who have permission to register from the University Honors College.

Course Attributes: UAA GER Social Sciences Requirement.

Special Note: May be repeated once for credit under a different subtitle.

Examines selected topics from a social science perspective. Exposes students to a broad range of social issues, and helps them to develop skills to examine and evaluate their world. Emphasizes research findings and skills, including the collection and analysis of both quantitative and qualitative data. Students will gain considerable experience communicating both orally and in writing.

<b>HNRS A309</b>	<b>Interdisciplinary Team-Based Research Methods</b>	<b>3 CR</b>
<p>Contact Hours: 3 + 0  Prerequisites: MATH A200 with minimum grade of C or MATH A272 with minimum grade of C.  Registration Restrictions: Registration limited to students admitted to the University Honors College, or to students who obtain permission to register from the University Honors College.  Examines the principles and methods of conducting research in a collaborative, team-based environment. Under the supervision of the instructor, students from different disciplines will be placed into teams that must work together to solve a complex systems problem requiring collaboration across disciplines. The instructor will guide the teams to formulate a research plan, illustrate how to perform data analysis and experimental methodology, and provide guidance on effective team management. May include guest lecturers for different application areas.</p>		
<b>HNRS A310</b>	<b>Community Service: Theory and Practice</b>	<b>3 CR</b>
<p>Contact Hours: 1 + 6  Registration Restrictions: Sophomore or junior standing. Registration open to students admitted to University Honors College, to students who have permission to register from the University Honors College, and to students working on the Certificate in Civic Engagement.  Explores questions of service, community, and self, and includes guided volunteer service with a cultural organization, social service organization, or government agency.</p>		
<b>HNRS A390</b>	<b>Special Topics Honors Seminar</b>	<b>3 CR</b>
<p>Contact Hours: 3 + 0  Registration Restrictions: Students admitted to the University Honors College, or to students who have permission to register from said College. Completion of GER Tier 1 required.  A special topics seminar focusing on a theme generally outside the scope of those presented in non-seminar courses. The seminar's format is Socratic and requires student research addressing the seminar's topic. Course may be repeated once with different seminar topic.</p>		
<b>HNRS A391</b>	<b>Junior Honors Tutorial</b>	<b>1 CR</b>
<p>Contact Hours: 1 + 0  Prerequisites: HNRS A291 and HNRS A292.  Registration Restrictions: Registration limited to students admitted to the Forty-Ninth State Fellows Program, and also open to students enrolled in the University Honors College who have permission to register from the University Honors College.  Special Note: Subtitle varies. Concurrent registration is required in the associated course whose title is the same as the subtitle of HNRS A391.  Offers junior-level intensive reading, writing, and discussion relating to the content of another course with which it is associated; the associated course varies from term to term. Students receive additional instruction in analyzing theoretical approaches in the readings, developing and arguing for a thesis in expository writing, and applying critical thinking to class discussion.</p>		
<b>HNRS A392</b>	<b>Honors Thesis Seminar</b>	<b>1 CR</b>
<p>Contact Hours: 1 + 0  Prerequisites: HNRS A192 and HNRS A292 and HNRS A310.  Registration Restrictions: Registration limited to students admitted to the University Honors College, and to students who have permission to register from the University Honors College.  In-depth application of discipline research skills to a particular problem. Develops an understanding of research problems and research methods used by different disciplines.</p>		
<b>HNRS A490</b>	<b>Senior Honors Seminar</b>	<b>6 CR</b>
<p>Contact Hours: 6 + 0  Registration Restrictions: Registration limited to students admitted to University Honors College, and to students who have permission to register from the University Honors College. Completion of GER Tier 1 (basic college-level skills) courses and junior standing.  Course Attributes: UAA GER Integrative Capstone.  Special Note: The course extends over both fall and spring semesters earning six hours credit thereby satisfying the three hour GER Integrative Capstone Course requirement. A passing grade is dependent on successful completion of the year-long course.  A two-semester long interdisciplinary Honors seminar investigating a central theme extending beyond the confines typically found within the individual disciplines and majors. Course is delivered in a Socratic style with themes generally focusing on the emerging 21st century leading to an enhanced understanding of the complex world of the future and of the student's role in it.</p>		

<b>HNRS A495</b>	<b>Honors Internship</b>	<b>1-6 CR</b>
<p>Contact Hours: 0 + 3-18  Registration Restrictions: Permission from the University Honors College and approval by a faculty member acting as the internship advisor.  Special Fees.  Special Note: Repeatable once for credit with a change of internship venue.  Applying interdisciplinary knowledge and skills to a student internship project, through a variety of governmental and private settings both within and outside of Alaska.</p>		

<b>HNRS A499</b>	<b>Honors Thesis</b>	<b>3 CR</b>
<p>Contact Hours: 0 + 6  Prerequisites: HNRS A392.  Registration Restrictions: Senior Standing. Permission from the University Honors College and approval by a faculty member acting as thesis advisor.  Special Note: May be repeated for a maximum of six credits.  Independent research under faculty supervision, including formulation of research topic, research and analysis, and defense.</p>		

## HS - Health Sciences

*Offered through the College of Health & Social Welfare  
Diplomacy Building (DPL), Room 404, 786-6540  
<http://health.uaa.alaska.edu/dept>*

<b>HS A210</b>	<b>Introduction to Environmental Health</b>	<b>3 CR</b>
<p>Contact Hours: 3 + 0  Provides an introduction to the field of environmental health including health effects of global climate change. Reviews agents of environmental disease and public health applications.</p>		

<b>HS A220</b>	<b>Core Concepts in the Health Sciences</b>	<b>3 CR</b>
<p>Contact Hours: 3 + 0  Course Attributes: UAA GER Social Sciences Requirement.  Orientation to health issues in the United States and Alaska. Explores basic dynamics of health and illness, transition from infections to chronic illness, measures of population health and overall health care delivery system. Examines medical, psychological, socio-cultural, economic and environmental factors related to health status and prevention of illness at the individual and the community levels. Addresses the history, goals and population health outcomes at the community, state and national levels.</p>		

<b>HS A230</b>	<b>Introduction to Global Health</b>	<b>3 CR</b>
<p>Contact Hours: 3 + 0  Provides an introduction to the field of global health with a focus on links between health and economic and social development. Reviews the global burden of disease as well as the impact of culture on health.</p>		

<b>HS A326</b>	<b>Introduction to Epidemiology</b>	<b>3 CR</b>
<p>Contact Hours: 3 + 0  Prerequisites: HS A220.  Provides an introduction to epidemiologic concepts and how epidemiologists use the scientific method to better understand the health status of human populations. Addresses disease surveillance, control of infectious and chronic diseases, selection of appropriate study designs for investigation of health determinants, and critical evaluation of epidemiologic studies and health policies.</p>		

<b>HS A345</b>	<b>Planning and Implementation of Health Education Programs</b>	<b>3 CR</b>
<p>Contact Hours: 3 + 0  Prerequisites: HS A220.  Theory and practice of program planning and implementation for health education and health promotion programs. Focuses on the use of educational strategies and methods to facilitate the development of policies, procedures, interventions, and systems that support the health of individuals, groups, and communities.</p>		

<b>HS A370</b>	<b>Medical Sociology</b>	<b>3 CR</b>
<p>Contact Hours: 3 + 0  Prerequisites: SOC A101.  Crosslisted with: SOC A370.  A historical and contemporary overview of selected social, political, and economic factors that influence the provision of health care in America. Focuses on the relationship between health care and race, sex, social stratification, and geographical location. Brief international comparisons with alternative for-profit and not-for-profit national health care systems.</p>		

## Course Descriptions

<b>HS A420</b>	<b>Introduction to Program Evaluation</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: [PSY A260 or STAT A252 or STAT A253] and [(HS A345 or concurrent enrollment) or HUMS A295B]. Crosslisted with: HUMS A420. Introduces the theory and practice of program evaluation for applied public health and human service settings.		
<b>HS A433</b>	<b>Health Education: Theory and Practice</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: HS A220 with minimum grade of C or NS A300 with minimum grade of C. Registration Restrictions: Faculty permission. Crosslisted with: NS A433. Provides the theoretical foundation for health education and health promotion. Develops students' abilities to design and deliver health education programs.		
<b>HS A463</b>	<b>Physician Assistant Clinical Clerkship I</b>	<b>12 CR</b>
Contact Hours: 0 + 40 Registration Restrictions: MEDEX 469. Acceptance into the University of Washington MEDEX Northwest Physician Assistant Program or by instructor permission. Grade Mode: Pass/No Pass. The first of a two-part course that provides clinical practice in selected institution-based or specialty practice settings, such as psychiatry, dermatology, emergency medicine, orthopedics, surgery, or gynecology and obstetrics.		
<b>HS A464</b>	<b>Physician Assistant Clinical Clerkship II</b>	<b>12 CR</b>
Contact Hours: 0 + 40 Prerequisites: HS A463. Registration Restrictions: Acceptance into the University of Washington MEDEX Northwestern Physician Assistant Program. Grade Mode: Pass/No Pass. The second of a two-part course that provides clinical practice in selected institution-based or specialty practice settings, such as psychiatry, dermatology, emergency medicine, orthopedics, surgery, or gynecology and obstetrics.		
<b>HS A465</b>	<b>Physician Assistant Family Practice Clerkship I</b>	<b>12 CR</b>
Contact Hours: 0 + 40 Registration Restrictions: MEDEX 464. Acceptance into the University of Washington MEDEX Northwest Physician Assistant Program. Grade Mode: Pass/No Pass. The first part of a two-course sequence that encompasses the treatment of patients in all age groups. Focus is on health maintenance, preventive care, and the psychosocial aspects of illnesses as they relate to the patient and his/her family. Students will develop the skills necessary to evaluate, manage, and monitor common health complaints and problems.		
<b>HS A466</b>	<b>Physician Assistant Family Practice Clerkship II</b>	<b>12 CR</b>
Contact Hours: 0 + 40 Registration Restrictions: MEDEX 465. Acceptance into the University of Washington MEDEX Northwest Physician Assistant Program. Grade Mode: Pass/No Pass. The second part of a two-course sequence that encompasses the treatment of patients in all age groups. Focus is on health maintenance, preventive care, and the psychosocial aspects of illnesses as they relate to the patient and his/her family. Students will develop the skills necessary to evaluate, manage, and monitor common health complaints and problems.		
<b>HS A490</b>	<b>Selected Topics: Health Care Issues in Alaska</b>	<b>1-6 CR</b>
Contact Hours: 1-6 + 0 Registration Restrictions: Successful completion of MEDEX NW first year courses or instructor permission. Provides specialized course content for health care professionals in Alaska. Topics covered will be of special interest to practitioners in both rural and urban settings. Subjects will be drawn from current health care priority areas including diseases specific to Alaska, substance abuse, behavioral health, and appropriate health care practices.		
<b>HS A491</b>	<b>Health Issues in Alaska</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: HS A463 or HS A465. Major Restriction: Must be Health Sciences major. Registration Restrictions: Health Sciences Physician Assistant Track Major or instructor permission. Course Attributes: UAA GER Integrative Capstone. Describes historical to present health status of Alaskans, emphasizing health disparities. Students research and implement strategies to reduce risk through health behavior change; evaluate clinical practices using quality measures to improve care quality; and explore social, cultural, and economic factors related to health policy and the clinician's role in health advocacy.		

<b>HS A492</b>	<b>Senior Seminar: Contemporary Health Policy</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: HS A220 and HS A326. Class Standing Restriction: Must be Junior or Senior. Registration Restrictions: Completion of GER Tier 1 (basic college-level skills) courses and junior standing Focuses on contemporary health policy issues with an emphasis on population-level public policies and health disparities.		
<b>HS A498</b>	<b>Senior Project in Health Sciences</b>	<b>3 CR</b>
Contact Hours: 0 + 9 Prerequisites: HS A220 and HS A345 and [(HS A420 or concurrent enrollment) or (HUMS A420 or concurrent enrollment)]. Class Standing Restriction: Must be Senior. Registration Restrictions: Senior standing. Approval by the faculty member acting as project advisor. Special Note: May be repeated once for a total of 6 credits. Individual senior projects completed under the mentorship of a faculty advisor. May be repeated once as part of a two-semester sequence with initial results, an outline, and bibliography presented at the end of the first semester and a final paper at the end of the second.		
<b>HS A499</b>	<b>Senior Thesis in Health Sciences</b>	<b>1-3 CR</b>
Contact Hours: 0 + 3-9 Prerequisites: HS A220. Class Standing Restriction: Must be Senior. Registration Restrictions: Senior standing. Approval by the faculty member acting as thesis advisor. Special Note: May be repeated once for a maximum of 6 credits. Individual thesis projects completed under the mentorship of a faculty advisor.		
<b>HS A605</b>	<b>Public Health and Society</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Admission to MPH Program or faculty permission. Special Fees. Incorporates behavioral and social science concepts in analyzing a variety of public health issues nationally, in Alaska and the northern regions. Presents how socioeconomic status, culture, race/ethnicity, age, and gender relate to health and disease outcomes and the quality of life. Provides knowledge on health promotion and disease prevention interventions.		
<b>HS A610</b>	<b>Environmental and Occupational Health</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Admission to MPH Program or faculty permission. Special Fees. Provides an overview of environmental factors including biological, physical, chemical, and occupational factors that affect the health of a community. Combines an overall ecological concern with specific elements related to personal and community health, emphasizing the interrelatedness of the two.		
<b>HS A615</b>	<b>Health Services Administration</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Admission to MPH program or faculty permission. Special Fees. Provides students with knowledge and tools to understand the planning, organization, administration, management, evaluation and policies of public health programs in the U.S. and particularly, Alaska. Applies an epidemiological model for health services delivery, strategic planning, health care quality management, performance standards, interagency cooperation, human resource management and ethics.		
<b>HS A624</b>	<b>Circumpolar Health Issues</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Admission to MPH Program or faculty permission. Special Fees. Provides a critical analysis of key circumpolar health issues, with a particular emphasis on the application of current research to professional practice, programs and policy. The overall goal of this course is for students to develop and demonstrate a level of professionally sophisticated critical analysis skills, problem-solving abilities, and expertise in public health issues most relevant to Alaska and other circumpolar regions. Opportunity to explore these issues within an Alaskan context will be provided in assignments.		



<b>HS A625</b>	<b>Biostatistics for Health Professionals</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Graduate standing or instructor permission. Undergraduate statistics course with a grade of C or better. Crosslisted with: NS A625. Special Fees.		
Principles of statistical reasoning and quantitative skills for analyzing health data. Topics include the binomial, Poisson, and normal distributions, the treatment of rates, measures of location and dispersion, and testing of statistical hypotheses. Both descriptive and inferential statistics are illustrated in mortality and morbidity problem sets requiring manual or computer assisted calculations. The comparison of methodological techniques and the choice of appropriate statistical methods to answer health research questions are stressed. This course is designed to enhance rather than substitute for statistical knowledge gained at the undergraduate level.		
<b>HS A625L</b>	<b>Biostatistics for Health Professionals Lab</b>	<b>1 CR</b>
Contact Hours: 0 + 3 Prerequisites: (HS A625 or concurrent enrollment) or (NS A625 or concurrent enrollment). Registration Restrictions: Grade of C or better in undergraduate research and statistics. Graduate status or faculty permission. Grade Mode: Pass/No Pass. Crosslisted with: NS A625L.		
Introduction to statistical analysis using the Statistical Package for the Social Sciences (SPSS) computer program. Focuses on creating a database, evaluating these data for entry errors, identifying statistical test assumptions, and computing descriptive and inferential statistics.		
<b>HS A626</b>	<b>Principles of Epidemiology</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Graduate standing or instructor permission. Crosslisted with: NS A626. Special Fees.		
Presents the study of patterns of disease and injury in human populations and the application of this study to the control of health problems. Introduces students to the basic principles and study designs of epidemiology. Covers the application of epidemiologic methods to the understanding of the occurrence and control of conditions such as infectious and chronic diseases, psychological and behavioral disorders, community and environmental health hazards, accidents, and genetic conditions.		
<b>HS A628</b>	<b>Program Evaluation</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Successful completion of MSW foundation requirements or admission as advanced standing, or graduate standing in Health Sciences. Crosslisted with: SWK A628. Special Fees.		
Theory and practice of agency or community-based research and evaluation. Course topics include commonly used evaluation models and research designs, politics and ethics of conducting and using research in an applied setting, communicating findings.		
<b>HS A629</b>	<b>Public Health Research Tools and Methods</b>	<b>4 CR</b>
Contact Hours: 3 + 2 Prerequisites: HS A625 and HS A626. Registration Restrictions: Admission to MPH program or faculty permission. Special Fees.		
Introduces basic principles and methods of health-related research from its conception to analysis and evaluation. Provides an overview of quantitative and qualitative methods. Requires certificate of completion of UAA-approved Human Subjects Research Education Course. Lab sessions provide basic hands-on training of a select quantitative and/or qualitative analytical software.		
<b>HS A630</b>	<b>Public Health Emergencies and Disasters</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Admission to MPH Program or faculty permission. Special Fees.		
Explores public health issues concerning natural and human-generated disasters and emergencies that occur in Alaska, the U.S., and different parts of the world. Includes topics on geophysical and weather-related problems, infectious diseases, war, and related concerns. Addresses prevention and public health interventions, including preparedness, response, and recovery strategies, as well as social, political, legal, and ethical challenges.		
<b>HS A690</b>	<b>Selected Topics in Public Health</b>	<b>1-4 CR</b>
Contact Hours: 1-4 + 0 Registration Restrictions: Department permission. Special Fees. Special Note: May be repeated for credit with different subtitles. Focuses on special, emerging, current, local, and other topics in public health.		

<b>HS A699</b>	<b>Thesis Practicum</b>	<b>1-5 CR</b>
Contact Hours: 0 + 3-15 Registration Restrictions: Admission to MPH Program and Academic Advisor Approval. Special Fees.		

The thesis practicum culminates a program of advanced study and should evidence a high degree of scholarly and professional competence. It serves as the basis for evaluating the capability of its author in the areas of applied research and professional practice. The thesis practicum is a reflection of the student's capabilities, with the help and guidance of the faculty and appropriate community members. The student's work is reviewed by her/his thesis committee to judge the author's scholarship and professional presentation, and to ascertain that the student has demonstrated his/her knowledge and ability to receive the Master's Degree.

## HUM - Humanities

*Offered through the College of Arts and Sciences  
Social Sciences Building (SSB), Room 343, 786-6049  
<http://liberalstudies.uaa.alaska.edu>*

<b>HUM A211</b>	<b>Introduction to Humanities I</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ENGL A111. Registration Restrictions: 3 credits of Fine Arts GER Course Attributes: UAA GER Humanities Requirement.		

Uses humanities-based methods of inquiry and analysis to interpret art works representative of diverse media, world cultures, and historical eras. Approaches different systems of aesthetic representation through investigations of form, meaning, and values. Places the contributions of individual artists in historical and cultural context.

<b>HUM A212</b>	<b>Introduction to Humanities II</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ENGL A211 or ENGL A212 or ENGL A213 or ENGL A214. Registration Restrictions: 3 credits of Fine Arts GER Course Attributes: UAA GER Humanities Requirement.		

Uses methods of contemporary humanities-based inquiry to explore major intellectual and aesthetic trends in the world's heritage of arts and ideas. Examines ideas and examples of the arts in the historical and cultural context of their development. Considers how the world's heritage of arts and ideas relates to the aesthetic and intellectual products of a specific world culture or historical era.

<b>HUM A220</b>	<b>Film as/and Literature</b>	<b>3 CR</b>
Contact Hours: 3 + 0		

An exploration of what makes good literature and good film, and the relationship between the two genres. Focuses on how literary and cinematic expression differs, and how—or if—the former translates into the latter. Students learn to read novels, plays, and short stories critically and to watch films critically. Two critical essays required; readings are numerous.

## HUMS - Human Services

*Offered through the College of Health & Social Welfare  
Professional Studies Building (PSB), Room 212, 786-6437  
<http://hums.uaa.alaska.edu>*

<b>HUMS A101</b>	<b>Introduction to Human Services</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Special Fees.		

Special Note: Offered Fall and Spring Semesters.  
Overview of human services. Includes traditional and contemporary helping approaches, plus characteristics, values, and professional roles of human service workers. Covers human service consumers, their problems and functioning, helping systems and strategies, environmental change processes, and legal and ethical issues.

<b>HUMS A106</b>	<b>Introduction to Social Welfare</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: SOC A101. Crosslisted with: SWK A106. Course Attributes: UAA GER Social Sciences Requirement.		

Analyzes social inequality and the American social welfare state. Traces historical evolution of government and non-government response to the provision of basic needs, opportunities, and rights for its citizenry, especially vulnerable populations. Investigates historical and persisting dilemmas—ethical, political, cultural, and economic—explicit and implicit, in achieving social justice. Assists in understanding of social welfare problems and solutions.

## Course Descriptions

- HUMS A107 History and Systems of Human Services 3 CR**  
Contact Hours: 3 + 0  
Introduces the historical foundations of the human service profession focusing upon formative legislation and service delivery systems both historic and current.
- HUMS A121 Advocating for Victims of Domestic Violence and Sexual Assault 3 CR**  
Contact Hours: 3 + 0  
Offered only at Matanuska-Susitna College.  
Focuses on developing the skills and knowledge needed to be an effective advocate for victims of domestic violence and sexual assault. Provides historical perspective, identifies physical, sexual and emotional abuse that defines battering. Explains cycle of violence, power and control issues and why women stay in abusive relationships. Identifies five stages of living without violence (denial, self-blame, help seeking, ambivalence and living violence free lives). Discusses ways of helping victims become survivors.
- HUMS A122 Substance Abuse as a Contemporary Problem 3 CR**  
Contact Hours: 3 + 0  
Introduction to current issues in addictions with emphasis on understanding alcohol and other drug use in historical, social, cultural, legal, and public health/policy contexts.
- HUMS A123 Public Education and Prevention in Substance Abuse 3 CR**  
Contact Hours: 3 + 0  
Special Fees.  
Special Note: Offered Spring Semesters.  
Use of community organization knowledge and skills for development of educational and preventive programs in substance abuse.
- HUMS A124 Introduction to Physiology and Pharmacology of Substance Abuse 3 CR**  
Contact Hours: 3 + 0  
Prerequisites: PSY A111.  
Introduction to basic knowledge about psychopharmacological properties and effects of psychoactive substances. Focus will be given to understanding the relationship between infectious diseases and substance use/abuse.
- HUMS A153 Human Relations 3 CR**  
Contact Hours: 3 + 0  
Crosslisted with: PSY A153.  
Special Fees.  
A survey of human relations to include communication, problem solving, interaction, relationship, choice and change skills.
- HUMS A155 Human Relations in the Workplace 3 CR**  
Contact Hours: 3 + 0  
Special Fees.  
A survey of communication, problem solving and interaction skills as applied to the world of work.
- HUMS A185 Introduction to Field Work 3 CR**  
Contact Hours: 3 + 0  
Essential elements of field experience learning in a Human Service setting, including the foundations of ethical decision making. Students will complete all documents necessary to enroll in HUMS A295A.
- HUMS A223 Introduction to Paraprofessional Counseling I 3 CR**  
Contact Hours: 3 + 0  
Special Fees.  
Special Note: Offered Fall and Spring Semesters.  
Focuses on systematic approach to effective helping and helping skills which fall into the following skill categories: skills for understanding, skills for comfort and crisis intervention, and skills for positive action.
- HUMS A224 Conflict and Collaborative Systems 3 CR**  
Contact Hours: 3 + 0  
Prerequisites: HUMS A223 and (HUMS A324 or concurrent enrollment).  
Provides a social constructionist framework for understanding interpersonal conflict. Focuses on the human and emotional aspects of conflict and includes the influence of gender and culture. Pragmatic as well as theoretical, this course presents communication and conflict resolution models to help manage and/or resolve conflict.
- HUMS A226 Intervention Continuum in Substance Abuse Counseling 3 CR**  
Contact Hours: 3 + 0  
Prerequisites: HUMS A122 and HUMS A223.  
Presents a continuum of interventions used in substance abuse counseling, to include screening and placement criteria, motivational interviewing, aftercare and relapse planning, documentation, and confidentiality.

- HUMS A240 Geriatric Lifestyle Assessment 3 CR**  
Contact Hours: 3 + 0  
Prerequisites: HUMS A101 or SOC A110.  
Provides a holistic overview of the assessment of the older adult. Examines tools and techniques used to assess an older person's functional, cognitive, social and psychosocial strengths and challenges. Explores strategies necessary to develop care plans for optimizing an individual's capabilities and quality of life.
- HUMS A256 Groups and Organizations 3 CR**  
Contact Hours: 3 + 0  
Introduces social, organizational and work-group behavior within a human service context.
- HUMS A290 Selected Topics in Alcohol and Drug Counseling .5-3 CR**  
Contact Hours: 0.5-3 + 0  
Grade Mode: Pass/No Pass.  
Special Fees.  
Provides the most current education in the area of substance abuse counseling. Specific topics will vary.
- HUMS A295A Human Services Practicum I 3 CR**  
Contact Hours: 1 + 9  
Prerequisites: (ENGL A111 or concurrent enrollment) and HUMS A101 and HUMS A223.  
Registration Restrictions: GER Oral Communication  
Special Fees.  
Students placed in a community Human Services agency will examine agency structure and function, professional relationships, and interagency networks to apply their knowledge of entry level helping skills with agency clientele while participating in a weekly class seminar to facilitate the integration of human service knowledge and theory with practical field application.
- HUMS A295B Human Services Practicum II 3 CR**  
Contact Hours: 1 + 9  
Prerequisites: [(ENGL A211 or concurrent enrollment) or (ENGL A212 or concurrent enrollment) or (ENGL A214 or concurrent enrollment)] and HUMS A295A.  
Special Fees.  
Emphasizes increasing responsibilities for providing direct client services. Students will access problems and plan interventions within the placement agency, while participating in a weekly class seminar structured to facilitate the integration of human service knowledge and theory with practical field application.
- HUMS A321 Diversity Issues in Human Services Practice 3 CR**  
Contact Hours: 3 + 0  
Prerequisites: HUMS A101 and HUMS A223 and HUMS A295A.  
Using a framework of self-awareness, this course will focus on the range of human diversity and the historical and current responses to it. It will help students incorporate the relevant needs of diverse groups in their professional practice.
- HUMS A322 Service Coordination in Human Services Practice 3 CR**  
Contact Hours: 3 + 0  
Prerequisites: HUMS A101 and HUMS A223 and HUMS A295A.  
Introduction to the fundamentals of service coordination across disciplines. Using an empowerment and strengths based framework, course focuses on the functions of service delivery, including assessment, planning, and implementation, utilizing the concepts of collaboration, ethics, and diversity.
- HUMS A324 Introduction to Paraprofessional Counseling II 3 CR**  
Contact Hours: 3 + 0  
Prerequisites: HUMS A223.  
Special Fees.  
Special Note: Offered Fall and Spring Semesters.  
Focuses on 11 major paraprofessional counseling skill clusters. Course emphasis will be skill performance in a direct service context.
- HUMS A333 Alternative Dispute Resolution 3 CR**  
Contact Hours: 3 + 0  
Prerequisites: [HUMS A223 or PSY A223] and [HUMS A324 or PSY A324].  
Special Fees.  
Special Note: Offered Fall Semesters.  
A conceptual framework in Alternative Dispute Resolution (ADR) with particular emphasis on history, communication skills, and ethics. Uses simulation exercises including negotiation strategy and tactics; mediation process and techniques; and development of arbitration case theory presentation. A comparison of the adversarial and collaborative dispute resolution systems as a theoretical backdrop.

<p><b>HUMS A334</b>                    <b>Family Mediation</b>                    <b>3 CR</b>  Contact Hours: 3 + 0  Prerequisites: HUMS A223 and HUMS A224 and HUMS A324 and HUMS A333.  Trains students in advanced mediation skills for resolving family conflict. Different models of mediation are presented, evaluated, and practiced. Current issues in Alaska family mediation are covered.</p>	<p><b>HUMS A434</b>                    <b>Group Facilitation for Human Service Professionals</b>                    <b>3 CR</b>  Contact Hours: 3 + 0  Prerequisites: HUMS A223 and HUMS A324.  Special Fees.  Advanced facilitation skills appropriate for group work to include goal setting, reciprocity, task identification, and personal growth. Presents a theoretical case in both group dynamics and group leadership. Contemporary ethical and managerial issues are included.</p>
<p><b>HUMS A350</b>                    <b>Men and Masculinity</b>                    <b>3 CR</b>  Contact Hours: 3 + 0  Prerequisites: SOC A101 or PSY A111.  Special Fees.  Special Note: Offered Fall Semesters.  Examines perspectives on masculinity and male sex role from historical, cultural and social-psychological perspectives with focus on males as clients in the human services setting. Examines the dynamics of male socialization and its influence on men in areas such as family and work, sexuality, and physical and mental health. Attention given to implications for prevention and human service delivery.</p>	<p><b>HUMS A461</b>                    <b>Crisis Intervention</b>                    <b>3 CR</b>  Contact Hours: 3 + 0  Prerequisites: HUMS A101 and HUMS A223 and HUMS A324.  Special Fees.  Special Note: Offered Fall Semesters.  A systematic and social approach to causes and treatment of human crises. Covers characteristics of crises, intervention strategies, and specific techniques for resolving various crisis situations. Students are expected to research, analyze, and compare community crisis support services.</p>
<p><b>HUMS A390</b>    <b>Selected Topics in Human Service Practice</b>                    <b>.5-3 CR</b>  Contact Hours: 0.5-3 + 0  Prerequisites: HUMS A101.  Provides the most current education in the area of Human Service practice. Specific topics will vary.</p>	<p><b>HUMS A495A</b>                    <b>Human Services Practicum III</b>                    <b>3 CR</b>  Contact Hours: 1 + 9  Prerequisites: HUMS A295A with minimum grade of C and HUMS A295B with minimum grade of C.  Registration Restrictions: Admission to Human Services Bachelor Degree Program.  Special Fees.  Placement in an agency will provide students with advancing levels of responsibility in direct client services and/or specialized activities/projects while increasing their professional development. Weekly concurrent classroom seminars required.</p>
<p><b>HUMS A412</b>    <b>Ethical Issues in Human Services Practice</b>                    <b>3 CR</b>  Contact Hours: 3 + 0  Prerequisites: HUMS A101 and HUMS A223.  Special Fees.  Special Note: Offered Fall Semesters.  Overview of ethics in human service practice. Clients' rights and confidentiality, worker responsibility for ethical behavior in the areas of confidentiality, multicultural counseling, professional responsibility, and practitioner competency.</p>	<p><b>HUMS A495B</b>                    <b>Human Services Practicum IV</b>                    <b>3 CR</b>  Contact Hours: 1 + 9  Prerequisites: HUMS A495A with minimum grade of C.  Registration Restrictions: Declared Human Services major, admission to Bachelor of Human Services Degree, Practicum IV status approval.  Course Attributes: UAA GER Integrative Capstone.  Special Fees.  This is the Integrative Capstone course for the Bachelor's of Human Services degree. The course builds and expands upon material presented in Human Services Practica I-III using theoretical frameworks from other required Human Service coursework. Students gain increasing levels of responsibility in the provision of direct client services in community-based settings.</p>
<p><b>HUMS A414</b>                    <b>Rural Treatment Strategies for Human Service Professionals</b>                    <b>3 CR</b>  Contact Hours: 3 + 0  Prerequisites: HUMS A101.  Special Fees.  Special Note: Offered Spring Semesters.  Focuses upon human service work in rural settings. Development of relevant knowledge and skills in the following areas: cultural issues, the addiction process and their impact on the individual, the family, and the community. Prevention and treatment of substance abuse strategies are presented focusing upon the human service worker as a change agent.</p>	<p><b>HUMS A610</b>    <b>Program Evaluation in Applied Settings</b>                    <b>3 CR</b>  Contact Hours: 3 + 0  Prerequisites: STAT A252.  Level Restriction: Must be Graduate - UAA level.  Registration Restrictions: B.H.S. or equivalent degree in related field and acceptance into the Graduate Certificate in Advanced Human Service Systems. Prior coursework in research methodology required.  Examines conceptual, methodological, and administrative factors related to the process of program evaluation in applied settings.</p>
<p><b>HUMS A416</b>    <b>Substance Abuse and the Older Adult</b>                    <b>3 CR</b>  Contact Hours: 3 + 0  Prerequisites: HUMS A124 and HUMS A223.  Addresses the issues related to aging adults who misuse alcohol, drugs, prescription medications, and other substances. Emphasis will be placed on identification, assessment, and intervention strategies.</p>	<p><b>HUMS A630</b>                    <b>Family and Community Systems</b>                    <b>3 CR</b>  Contact Hours: 3 + 0  Level Restriction: Must be Graduate - UAA level.  Registration Restrictions: B.H.S. or equivalent degree in related field and acceptance into the Graduate Certificate in Advanced Human Service Systems.  Presents a complex systems approach to human service delivery. Through the frameworks of diversity and social justice, the course examines contemporary and changing service delivery values, perspectives and intervention techniques.</p>
<p><b>HUMS A417</b>                    <b>Substance Abuse Counseling for Human Service Professionals</b>                    <b>3 CR</b>  Contact Hours: 3 + 0  Prerequisites: HUMS A122 and HUMS A123 and HUMS A223.  Special Fees.  Special Note: Offered Fall Semesters.  Develops advanced counseling theory and skills specifically required by human service professionals in substance abuse treatment. Includes client assessment, diagnosis, and treatment planning. Substance abuse treatment strategies will be compared and contrasted.</p>	<p><b>HUMS A640</b>    <b>Contemporary Issues in Rehabilitation</b>                    <b>3 CR</b>  Contact Hours: 3 + 0  Level Restriction: Must be Graduate - UAA level.  Registration Restrictions: B.H.S. or equivalent degree in related field and acceptance into the Graduate Certificate in Advanced Human Service Systems.  Provides an overview of the historical, philosophical, and legal basis of rehabilitation systems and services. Examines the role of rehabilitation systems, the rehabilitation process, public and private organizational systems, and societal trends in rehabilitation.</p>
<p><b>HUMS A420</b>    <b>Introduction to Program Evaluation</b>                    <b>3 CR</b>  Contact Hours: 3 + 0  Prerequisites: [PSY A260 or STAT A252 or STAT A253] and [(HS A345 or concurrent enrollment) or HUMS A295B].  Crosslisted with: HS A420.  Introduces the theory and practice of program evaluation for applied public health and human service settings.</p>	<p><b>HUMS A650</b>                    <b>Leadership and Organizational Development in Human Services</b>                    <b>3 CR</b>  Contact Hours: 3 + 0  Level Restriction: Must be Graduate - UAA level.  Registration Restrictions: B.H.S. or equivalent degree in related field and acceptance into the Graduate Certificate in Advanced Human Service Systems.  Presents leadership styles based upon human organizational development theory and concepts. Through the frameworks of transformative, strategic and structural change models, the course examines organizational change and leadership in public, private and self-help human service organizations.</p>
<p><b>HUMS A424</b>                    <b>Advanced Counseling for Human Service Professionals</b>                    <b>3 CR</b>  Contact Hours: 3 + 0  Prerequisites: HUMS A223 and HUMS A324.  Special Fees.  Special Note: Offered Spring Semesters.  Comparative counseling systems and theories appropriate in the human service context are presented. Cognitive, affective, behavioral systems will be presented as approaches in a variety of human service settings including education, family and community, rehabilitation, and mental health.</p>	

## Course Descriptions

### HUMS A660 Promoting Positive Development in At-Risk Youth 3 CR

Contact Hours: 3 + 0

Level Restriction: Must be Graduate - UAA level.

Registration Restrictions: B.H.S. or equivalent degree in related field and acceptance into the Graduate Certificate in Advanced Human Service Systems.

Provides history and current challenges facing the field of positive youth development, examines theoretical and practical frameworks for collaboratively providing quality services and establishing programs and community connections needed to successfully transition into young adulthood.

### HUMS A670 Professional Ethics in Human Services 3 CR

Contact Hours: 3 + 0

Level Restriction: Must be Graduate - UAA level.

Registration Restrictions: B.H.S. or equivalent degree in related field and acceptance into the Graduate Certificate in Advanced Human Service Systems.

Provides an overview of ethical issues in human services emphasizing the identification of ethical issues and the application of ethical principles and codes of ethics in applied decision making.

### HUMS A680 Advanced Topics in Human Development: Childhood 3 CR

Contact Hours: 3 + 0

Level Restriction: Must be Graduate - UAA level.

Registration Restrictions: B.H.S. or equivalent degree in related field and acceptance into the Graduate Certificate in Advanced Human Service Systems.

Provides an overview of major theories and research in child development with a focus on applications in human service systems. Emphasis on program development and systems issues in multicultural settings and strategies to promote healthy development and resilience.

### HUMS A681 Advanced Topics in Human Development: Adolescence 3 CR

Contact Hours: 3 + 0

Level Restriction: Must be Graduate - UAA level.

Registration Restrictions: B.H.S. or equivalent degree in related field and acceptance into the Graduate Certificate in Advanced Human Service Systems.

Provides an overview of major theories and research in adolescent development with a focus on applications in human service systems. Emphasis on program development and systems issues in multicultural settings and strategies to promote healthy development and resilience.

### HUMS A682 Advanced Topics in Human Development: Adulthood and Aging 3 CR

Contact Hours: 3 + 0

Level Restriction: Must be Graduate - UAA level.

Registration Restrictions: B.H.S. or equivalent degree in related field and acceptance into the Graduate Certificate in Advanced Human Service Systems.

Provides an overview of major theories and research in adulthood and aging with a focus on applications in human service systems. Emphasis on program development and systems issues in multicultural settings and strategies to promote healthy development and resilience.

## ID - Interior Design

*Offered through the College of Arts and Sciences*

*Chugiak-Eagle River Campus, 694-3313*

<http://uaa.alaska.edu/eagle>

### ID A141 Interior Design 3 CR

Contact Hours: 3 + 0

Beginning interior design survey course. Design theory as related to planning and decorating homes. Particular emphasis on developing individual styles, color schemes, floor, wall and window coverings, basic lighting, and interior furnishings.

## INTL - International Studies

*Offered through the College of Arts and Sciences*

*Administration/Humanities Building (ADM), Room 262, 786-1509*

[www.uaa.alaska.edu/intl](http://www.uaa.alaska.edu/intl)

### INTL A101 Local Places/Global Regions: An Introduction to Geography 3 CR

Contact Hours: 3 + 0

Crosslisted with: GEOG A101.

Course Attributes: UAA GER Social Sciences Requirement.

Introduction to cultural, political, and environmental diversity in an international context. Focus on key global issues, current events, and geographic approaches to understanding world problems.

### INTL A315 Canada: Nation and Identity 3 CR

Contact Hours: 3 + 0

Prerequisites: GEOG A101 or INTL A101 and HIST A131.

Registration Restrictions: Completion of GER Tier 1 (basic college-level skills) courses and junior standing.

Course Attributes: UAA GER Integrative Capstone.

An interdisciplinary examination and analysis of Canada. Themes include the development of Canadian nationalism and national identity, problems of official bilingualism, Quebec separatism, multiculturalism and Canadian First Nations. American political and cultural relations will be explored as issues framing the future of Canada and its international role in the 21st century.

### INTL A325 Northeast Asia in 21st Century 3 CR

Contact Hours: 3 + 0

Registration Restrictions: Junior standing. Completion of GER Tier 1 (basic college-level skills) courses. Six credits of Tier 2 GEOG, HIST, or PS courses.

Crosslisted with: HIST A325 and PS A325.

Course Attributes: UAA GER Integrative Capstone.

An interdisciplinary examination and analysis of Northeast Asia covering China, the Koreas, and Japan, designed to provide students with the means to understand how the societies of this region have developed separate and distinct identities despite their common cultural and philosophic roots.

### INTL A495 International Studies Internship 3 CR

Contact Hours: 1 + 8

Registration Restrictions: International Studies Major; junior standing.

Special Fees:

Special Note: Repeatable for credit with change of internship venue.

Internship in which student gains intensive experience applying cross-cultural and international knowledge and skills to specific, assigned projects. Internships are available in a variety of Anchorage-based international governmental and private settings and require a formal agreement between the student, the faculty member, and the supervisor.

## JPC - Journalism & Public Communications

*Offered through the College of Arts and Sciences*

*Professional Studies Building (PSB), Room 203, 786-4180*

<http://jpc.uaa.alaska.edu>

### JPC A101 Media and Society 3 CR

Contact Hours: 3 + 0

Course Attributes: UAA GER Social Sciences Requirement.

Describes the evolution of newspapers, magazines, photography, film, radio, television, Internet, and development of telecommunications and information technologies in the last 100 years. Emphasis on social, cultural, political, and economic affects of media.

### JPC A201 Reporting and Writing News 3 CR

Contact Hours: 2 + 2

Prerequisites: ENGL A211 with minimum grade of C or ENGL A212 with minimum grade of C or ENGL A213 with minimum grade of C or ENGL A214 with minimum grade of C.

Registration Restrictions: Keyboarding ability.

Examines principles and practices of reporting and writing news in the 21st century. Examines development of news form and structure. Foundation course concentrates on basics of reporting processes and news writing. Writing under deadline using Associated Press Style Book and Briefing on Media Law and computers.

### JPC A202 First Amendment and Media Ethics 3 CR

Contact Hours: 3 + 0

Prerequisites: [ENGL A211 with minimum grade of C or ENGL A212 with minimum grade of C or ENGL A213 with minimum grade of C or ENGL A214 with minimum grade of C].

Examines the history of First Amendment and implications for media ethics. Foundation course emphasizes principles and practices of First Amendment law and media ethics.

### JPC A203 Writing and Producing for Electronic Media 3 CR

Contact Hours: 2 + 2

Prerequisites: JPC A201 and JPC A202.

Examines the principles and practices of writing and producing for radio, television, and Web. Foundation course emphasizes news writing, commercial, public service, and narrative copy, as well as visual and aural elements in electronic media.

<b>JPC A204</b>	<b>Information Gathering</b>	<b>3 CR</b>	<b>JPC A346</b>	<b>Magazine Content Creation</b>	<b>3 CR</b>
Contact Hours: 2 + 2 Prerequisites: JPC A201 and JPC A202. Examines information gathering process used by journalists and other mass communicators. Foundation course emphasizes principles and practices of interviewing, research of government documents, computerized databases, and business documents for news stories and research for media-related decision making.			Contact Hours: 2 + 2 Prerequisites: JPC A204. Analyzes content strategies and techniques for contemporary magazines, including writing, photography, and editorial content. Emphasis on professional principles and practices of story development, magazine story research and writing, copy editing, use of images, typography and cutlines, and placement of stories in contemporary magazine markets. Students produce content for on-campus and off-campus publications.		
<b>JPC A211</b>	<b>Visual Literacy</b>	<b>3 CR</b>	<b>JPC A362</b>	<b>Principles of Strategic Communications</b>	<b>3 CR</b>
Contact Hours: 2 + 2 Examines visual forms of communication. Emphasis on the use of images in newspapers, magazines, film, television, photography, informational graphics, interactive multimedia, digital games, and Web-based technologies and the role of visual media in cultural processes and aesthetic appreciation.			Contact Hours: 3 + 0 Prerequisites: JPC A204. Analyzes theories of persuasion and the evolution of contemporary public relations, advertising, and marketing industries. Emphasis on professional principles and practices of persuasive communications strategies and techniques for mass audiences using contemporary media.		
<b>JPC A212</b>	<b>Copy Editing</b>	<b>3 CR</b>	<b>JPC A363</b>	<b>Research Methods for Strategic Communications</b>	<b>3 CR</b>
Contact Hours: 2 + 2 Prerequisites: JPC A201. Examines copy editing concepts and terminology. Emphasis on principles and practices of copy editing as applied to print, broadcast, and online journalism. Copy editing against deadlines.			Contact Hours: 3 + 0 Prerequisites: JPC A204. Analyzes empirical research methods for strategic communications. Emphasis on research objectives, quantitative and qualitative methods, sample selection, questionnaire design, analysis procedures, reporting and presenting results. Legal and ethical issues are examined.		
<b>JPC A213</b>	<b>Digital Imaging</b>	<b>3 CR</b>	<b>JPC A366</b>	<b>Planning and Writing for Strategic Communications</b>	<b>3 CR</b>
Contact Hours: 2 + 2 Examines the creation and use of electronically generated images to communicate. Emphasis on visual aesthetics, composition, image layering, photo retouching, spatial relationships, compression techniques, digital painting, editing, color adjustment, filtering, image capture and file formatting.			Contact Hours: 3 + 0 Prerequisites: JPC A363. Analyzes strategic planning processes and techniques of creative and persuasive message preparation for strategic communication. Emphasis on principles and practices of planning and writing for print and electronic media for advertising, public relations, sales promotion, and marketing.		
<b>JPC A312</b>	<b>History of Alaska Media</b>	<b>3 CR</b>	<b>JPC A368</b>	<b>Commercial Photography</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Examines the history and development of Alaska media. Emphasis on how Alaska communications media have shaped the development of Alaska from "Seward's Folly" through statehood to analysis of coverage of current political and social controversies.			Contact Hours: 3 + 0 Prerequisites: JPC A213 and JPC A342. Analyzes contemporary commercial photography. Emphasis on use of staging, lighting, and photographic techniques for advertising, public relations, and integrated marketing for commercial clients.		
<b>JPC A313</b>	<b>Movies and the First Amendment</b>	<b>3 CR</b>	<b>JPC A369</b>	<b>Design for Publications</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Analyzes how First Amendment issues are presented in film and television as popular culture. Emphasis on analysis of First Amendment and media ethics issues as presented in films from <i>His Girl Friday</i> (1932), <i>All the President's Men</i> (1976), <i>The Paper</i> (1996) and other media-related movies.			Contact Hours: 2 + 2 Prerequisites: JPC A213 and JPC A363. Analyzes contemporary graphics technology for use in strategic communications. Emphasis on writing and visual communication for advertising, public relations, sales promotion and marketing, including design and layout issues related to annual reports and other multiple-page publications.		
<b>JPC A314</b>	<b>Documentary Filmmakers and Filmmaking</b>	<b>3 CR</b>	<b>JPC A382</b>	<b>Digital Audio Production</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Junior status. Analyzes cinematography and filmmaking techniques of significant American and international documentary filmmakers.			Contact Hours: 2 + 2 Prerequisites: JPC A204. Analyzes digital audio production. Emphasis on professional principles and practices of signal processing, multi-track mixing, layering, synchronization and digital editing techniques. Students produce digital audio programs for various markets.		
<b>JPC A342</b>	<b>Photojournalism</b>	<b>3 CR</b>	<b>JPC A383</b>	<b>TV Studio Production</b>	<b>3 CR</b>
Contact Hours: 2 + 2 Prerequisites: JPC A204. Special Fees. Analyzes newspaper, magazine, and World Wide Web digital photography as news and documentary forms. Emphasis on principles, practices, and professional standards of shooting and editing digital photographs on deadline. Students shoot, edit, and print spot news, sports, features and special essays.			Contact Hours: 2 + 2 Prerequisites: JPC A204. Analyzes television studio production. Emphasis on professional principles and practices of set-up and operation of studio production equipment, production fundamentals, the team process of television program production, and the aesthetics and use of studio television for communication.		
<b>JPC A343</b>	<b>Radio News Reporting</b>	<b>3 CR</b>	<b>JPC A384</b>	<b>Digital Video Production</b>	<b>3 CR</b>
Contact Hours: 2 + 2 Prerequisites: JPC A204. Analyzes the history and development of radio news reporting and radio industry. Emphasis on principles and practices of professional radio news reporting, story research, writing, announcing, sound editing and radio news production. Students produce radio news stories for student and professional media.			Contact Hours: 2 + 2 Prerequisites: JPC A343 or JPC A344. Analyzes digital video production. Emphasis on professional principles and practices of camera, lighting, sound, and editing of digital video for various distribution systems and audiences.		
<b>JPC A344</b>	<b>Television News Reporting</b>	<b>3 CR</b>	<b>JPC A385</b>	<b>Scriptwriting for Film and Television</b>	<b>3 CR</b>
Contact Hours: 2 + 2 Prerequisites: JPC A204. Analyzes the history and development of television news reporting and the television industry. Emphasis on principles and practices of television news reporting, story research, writing, shooting, and editing. Students produce television news stories for Webcast and cable television.			Contact Hours: 2 + 2 Prerequisites: JPC A204. Analyzes scriptwriting strategies and techniques for film and television. Emphasis on professional principles and practices of story development, scriptwriting form, storyboarding, and marketing of scripts for film and television projects.		
<b>JPC A345</b>	<b>Web Design</b>	<b>3 CR</b>			
Contact Hours: 2 + 2 Prerequisites: JPC A213. Analyzes the development of the World Wide Web as a communications medium. Emphasis on professional principles and practices of Web design, evolving technologies, and the convergence of digital images, graphics, text, voice, and music to enhance the interactivity between user and the system.					

## Course Descriptions

### JPC A403 Communications and Media Research 3 CR

Contact Hours: 3 + 0

Prerequisites: JPC A204 and STAT A252.

Registration Restrictions: Completion of GER Tier 1 (basic college-level skills) courses and junior standing.

Course Attributes: UAA GER Integrative Capstone.

Evaluates communications and media research. Emphasizes methods and practices of empirical research in communications and media, including concept framing, empirical methods, data generation, data analysis, peer review, and results presentation and publication. Students develop and produce empirical primary research papers using quantitative and qualitative research methods.

### JPC A404 Global Media and Communications Systems 3 CR

Contact Hours: 3 + 0

Prerequisites: JPC A204.

Evaluates the history and development of global media and communications systems. Emphasis on the technological, social, political, and economic forces that impact the practice of journalism, public communications, and information technology throughout the world.

### JPC A405 Communications and Media Theories 3 CR

Contact Hours: 3 + 0

Prerequisites: JPC A204.

Emphasis on historical and contemporary theories of public communications, public opinion, audience, evolving technologies, and social influences of communications and media.

### JPC A413 Communications Law 3 CR

Contact Hours: 3 + 0

Prerequisites: JUST A110 or [JPC A202 with minimum grade of C].

Crosslisted with: JUST A413.

Legal rights, privileges, and regulations of press, radio, television, Internet and films; libel, contempt, copyright, rights of privacy; decisions of regulatory bodies.

### JPC A442 Multimedia Journalism 3 CR

Contact Hours: 2 + 2

Prerequisites: JPC A204 and JPC A345.

Applies ethical principles and professional practices of multimedia journalism, especially regarding the creation of storytelling techniques developed on digital platforms. Examines the emergence of a global information society, with a focus on the effects these phenomena are having on the news media.

### JPC A443 Enterprise Reporting 3 CR

Contact Hours: 2 + 2

Prerequisites: JPC A204 with minimum grade of C.

Major Restriction: Must be Journalism & Public Communications major.

Class Standing Restriction: Must be Junior or Senior.

Registration Restrictions: JPC junior or senior status.

Applies ethical principles and advanced professional practices of reporting that go beyond breaking news coverage to in-depth, investigative, explanatory and analytical reporting about contemporary topics for print, radio, television and multimedia.

### JPC A444 Specialty Reporting 3 CR

Contact Hours: 3 + 0

Prerequisites: JPC A204.

Special Note: May be taken twice for credit with permission of Department Chair.

Evaluates specialty reporting such as sports, environmental, medical and health, business, or transportation reporting. Applies ethical principles and advanced professional principles and practices of reporting to special topics. Students report for print, radio, television, or Web.

### JPC A445 Magazine Editing & Production I 3 CR

Contact Hours: 2 + 2

Prerequisites: JPC A204 with minimum grade of C.

Evaluates the use of design for magazine production. Emphasis on magazine writing, design, layout, typography, production, electronic distribution, and prepress. Class will produce a general interest color magazine.

### JPC A446 Magazine Editing and Production II 3 CR

Contact Hours: 2 + 2

Prerequisites: JPC A204.

Uses magazine editing and production techniques to produce a magazine. Emphasis on magazine writing, editing, design, layout, typography, production, distribution and prepress. Class will produce a specialized magazine about media and Alaska.

### JPC A462 Corporate Communications 3 CR

Contact Hours: 3 + 0

Prerequisites: JPC A363.

Evaluates corporate communication. Applies professional principles and practices of strategic communications, internal communications, message design, advertising, public relations, integrated marketing communications, and new communication technologies in corporations.

### JPC A463 Crisis Communications 3 CR

Contact Hours: 3 + 0

Prerequisites: JPC A363.

Evaluates crisis communications. Applies ethical principles and professional practices of crisis communications planning, development, and execution during a crisis. Develops a crisis communications plan for organizations for communicating with internal and external audiences during a crisis.

### JPC A464 Development Communications 3 CR

Contact Hours: 3 + 0

Prerequisites: JPC A363.

Evaluates development communications. Applies ethical principles and professional practices of planning and execution of development communications programs, including fund-raising for businesses and non-profit organizations.

### JPC A465 Strategic Communications Campaigns I 3 CR

Contact Hours: 3 + 0

Prerequisites: JPC A363.

Evaluates strategic communications campaigns. Part I of a two-semester sequence. Applies ethical principles and professional principles and practices of qualitative and quantitative research, planning, strategic analysis, and evaluations to a strategic communications campaign. Students develop a strategic communications campaign for business or nonprofit organization.

### JPC A466 Strategic Communications Campaigns II 3 CR

Contact Hours: 3 + 0

Prerequisites: JPC A465.

Evaluates strategic communications campaigns. Part II of a two-semester sequence. Applies ethical principles and research methods, planning, production of campaign materials, working with clients, production houses, and "pitch" presentations. Students develop a strategic communications campaign for business or nonprofit organization.

### JPC A482 TV Post-Production 3 CR

Contact Hours: 2 + 2

Prerequisites: JPC A382 or JPC A383.

Evaluates television segments and programs in non-studio locations. Applies ethical principles and professional principles and practices of idea development, script writing, storyboarding, planning, use of digital video cameras, lighting, sound, and post-production editing. Students produce commercials, public service spots, and promotional videos for multiple formats and audiences.

### JPC A483 Broadcast Graphics 3 CR

Contact Hours: 2 + 2

Prerequisites: JPC A382 or JPC A383.

Evaluates design elements, software, and hardware used in professional broadcast graphics. Applies ethical practices and professional principles and practices of design and creation of a variety of broadcast content, including titles, IDs, graphics for sports and news, live video, and text animation.

### JPC A484 Documentary Film Production I 3 CR

Contact Hours: 3 + 0

Prerequisites: JPC A314 and JPC A482.

Evaluates history and development of documentary film. Part I of a two-semester sequence. Applies ethical principles and professional principles and practices of documentary film production, including idea development, research, script treatment, production logistics, and budget.

### JPC A485 Documentary Film Production II 3 CR

Contact Hours: 3 + 0

Prerequisites: JPC A484.

Evaluates history and development of documentary film. Part II of a two-semester sequence. Applies ethical principles and professional practices of documentary production, including field production, editing, post-production, and marketing to various distribution outlets, including film festivals.

### JPC A486 Independent Film Production I 3 CR

Contact Hours: 3 + 0

Prerequisites: JPC A482.

Evaluates history and development of independent film. Part I of a two-semester sequence. Applies professional principles and practices of digital film idea development, research, script treatment, logistics, and budget for independent short film production.

### JPC A487 Independent Film Production II 3 CR

Contact Hours: 3 + 0

Prerequisites: JPC A486.

Evaluates history and development of independent film. Part II of a two-semester sequence. Applies professional principles and practices of independent film production, including studio and field production, editing, post-production, and marketing to various distribution outlets, including film festivals.

**JPC A490 Selected Topics in Journalism and Public Communications** 3 CR  
 Contact Hours: 3 + 0  
 Prerequisites: JPC A204.  
 Registration Restrictions: Junior or senior standing.  
 Special Note: May be taken twice for credit with a change of subtitle.  
 Analyze, develop, and apply professional principles and practices to changing landscape of contemporary journalism and media.

**JPC A492 JPC Senior Seminar** 3 CR  
 Contact Hours: 3 + 0  
 Prerequisites: JPC A204.  
 Registration Restrictions: Junior or senior status; GPA of 3.5 or better in JPC courses.

Seminar discussion and advanced research in topics current to media industry. Students' portfolio work will be reviewed by faculty committee.

**JPC A495 JPC Practica and Internships** 1-6 CR  
 Contact Hours: 0 + 3-18  
 Prerequisites: JPC A204.  
 Registration Restrictions: Junior or senior status; 3.0 GPA in JPC courses; and permission of JPC Media Advisor or JPC Director of Internships.  
 Special Note: May be repeated for up to 6 credits.

Supervised on-campus and off-campus experience at media organization. JPC practica are supervised media and communications experiences at on-campus media. JPC internships are supervised media and communications experiences at off-campus media. Students perform significant media work under faculty media advisor and on-staff supervision. Students develop portfolios for review.

## JPN - Japanese

*Offered through the College of Arts and Sciences  
 Administration/Humanities Building (ADM) Suite 287, 786-4030  
[www.uaa.alaska.edu/languages](http://www.uaa.alaska.edu/languages)*

**JPN A101 First Year Japanese I** 4 CR  
 Contact Hours: 4 + 0  
 Course Attributes: UAA GER Humanities Requirement.  
 Special Fees.

Introductory course for students with no previous knowledge of the Japanese language. Develops listening, speaking, reading, and writing skills in Japanese for effective communication at the elementary level. Students gain understanding of basic cross-cultural perspectives. Course conducted in Japanese.

**JPN A102 First Year Japanese II** 4 CR  
 Contact Hours: 4 + 0  
 Prerequisites: JPN A101.  
 Course Attributes: UAA GER Humanities Requirement.  
 Special Fees.

Continuation of introductory course. Further develops elementary listening, speaking, reading, and writing skills in Japanese for effective communication. Enhances appreciation of cross-cultural perspectives. Course conducted in Japanese.

**JPN A201 Second Year Japanese I** 4 CR  
 Contact Hours: 4 + 0  
 Prerequisites: JPN A102.  
 Course Attributes: UAA GER Humanities Requirement.  
 Special Fees.

Intermediate course for students with basic knowledge of Japanese. Enhances listening, speaking, reading, and writing skills for effective communication at the second year level. Students critically examine diverse cultural perspectives. Course conducted in Japanese.

**JPN A202 Second Year Japanese II** 4 CR  
 Contact Hours: 4 + 0  
 Prerequisites: JPN A201.  
 Course Attributes: UAA GER Humanities Requirement.  
 Special Fees.

Continuation of first semester in second year Japanese. Further develops listening, speaking, reading, and writing proficiency for effective communication and in preparation for advanced study of Japanese. Students interpret diverse cultural perspectives. Course conducted in Japanese.

**JPN A290 Selected Topics in Japanese Culture** 1 CR  
 Contact Hours: 0 + 2  
 Prerequisites: JPN A101.  
 Special Fees.  
 Special Note: May be repeated twice for credit, but not more than one credit can be applied to Language major.

Topics in Japanese culture such as Shodo (calligraphy), Zen Meditation, Ikebana (flower arrangement), and Chado/Sado (tea ceremony). Gives students opportunities to learn Japanese culture first hand.

**JPN A301 Advanced Japanese I** 4 CR  
 Contact Hours: 4 + 0  
 Prerequisites: JPN A202 with minimum grade of C.  
 Registration Restrictions: If prerequisite not met, students can gain entrance to course with departmental approval.  
 Course Attributes: UAA GER Humanities Requirement.  
 Special Fees.

Advanced Japanese course in refining listening, speaking, reading, writing, and analytical skills for effective interaction in communicatively complex situations. Students critically analyze diverse cultural topics.

**JPN A302 Advanced Japanese II** 4 CR  
 Contact Hours: 4 + 0  
 Prerequisites: JPN A301 with minimum grade of C.  
 Registration Restrictions: If prerequisite not met, students can gain entrance to course with departmental approval.  
 Course Attributes: UAA GER Humanities Requirement.  
 Special Fees.

Continuation of first semester in advanced Japanese. Further refines listening, speaking, reading, writing, and analytical skills for effective interaction in communicatively complex situations. Students critically analyze diverse cultural topics.

**JPN A310 Selected Topics in Advanced Japanese** 3 CR  
 Contact Hours: 3 + 0  
 Prerequisites: JPN A202.  
 Special Fees.  
 Special Note: May be repeated for credit.

An advanced course for students interested in improving their communicative skills in spoken and written Japanese and in deepening their understanding of the Japanese people and culture. Each time the course is offered, different but closely related topics such as history and geography, politics and economy, education and technology, performing arts and films, traditions and modern trends, will be selected and emphasized.

**JPN A350 Business Japanese** 3 CR  
 Contact Hours: 3 + 0  
 Prerequisites: JPN A202.  
 Special Fees.  
 Special Note: Class will be conducted in Japanese and English.

Focuses on working knowledge of Japanese business and financial terminology, Japanese business culture, and business practices. Study of business correspondence, terms and jargon, negotiations, and other topics useful in the Japanese business environment.

## JUST - Justice

*Offered through the College of Health & Social Welfare  
 Consortium Library (LIB), Room 213, 786-1810  
<http://justice.uaa.alaska.edu>*

**JUST A110 Introduction to Justice** 3 CR  
 Contact Hours: 3 + 0  
 Course Attributes: UAA GER Social Sciences Requirement.  
 Special Note: This course is a prerequisite to most Justice courses.

Survey of philosophies, functions and methods of social control with emphasis on role of law and those involved in its administration—police, courts, and correction organizations. Includes study of history, organization, processes, and problems related to law and justice agencies in a heterogeneous, democratic society.

**JUST A200 Introduction to Research Methods** 3 CR  
 Contact Hours: 3 + 0  
 Prerequisites: JUST A110.

Introduces social science research methods used in Justice studies, including explication of the scientific method, experimental and quasi-experimental designs, sampling, data collection methods, and analytical strategies. Students will participate in exercises that develop their capacity to critically evaluate research designs routinely employed in Justice research and program evaluations.

**JUST A201 Justice Data Analysis** 3 CR  
 Contact Hours: 3 + 0  
 Prerequisites: JUST A110.

Introduces students to descriptive statistical analysis and presentation of crime and justice data. Topics include measures of central tendency, dispersion, hypothesis testing, and statistical significance. Data presentations focus on the production and interpretation of tables and graphs to impact justice policy and practice.

## Course Descriptions

<b>JUST A210</b>	<b>Principles of Corrections</b>	<b>3 CR</b>	<b>JUST A330</b>	<b>Justice and Society</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: JUST A110. Presents an overview of the field of corrections. Topics include theories of punishment and sentencing, history of the prison and jail, inmate prison life, inmate litigation, and the organization of prisons and staff. Issues of gender, race/ethnicity and class are integrated throughout the course.			Contact Hours: 3 + 0 Prerequisites: JUST A110. Course Attributes: UAA GER Social Sciences Requirement. The evolutionary influence of ideology, technology and social interests on the justice system. The dynamic impact of long-term emerging concepts such as 'equality' and 'privacy' will be viewed against the background of requirements of political and economic organization.		
<b>JUST A211</b>	<b>Introduction to Restorative Justice</b>	<b>3 CR</b>	<b>JUST A332</b>	<b>Environmental Crime Prevention</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: JUST A110. Introduces the development of community and government responses to crime that encourage healing, accountability, competency, and citizen involvement while holding offenders and communities accountable. Includes theoretical and cultural roots, as well as an overview of restorative justice practices in the U.S. criminal system.			Contact Hours: 3 + 0 Prerequisites: JUST A200 and JUST A201 and [JUST A251 or SOC A251]. Special Note: JUST A320 recommended Examines the theoretical background to opportunity- reducing in environmental crime prevention. Explores the application and implementation of crime prevention through environmental design, defensible space, and problem-oriented policing. Illustrates the practical and policy difficulties of environmental crime prevention through the use of case studies and field work.		
<b>JUST A221</b>	<b>Justice Organization and Management</b>	<b>3 CR</b>	<b>JUST A334</b>	<b>Police &amp; Society</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: JUST A110. Survey of organization and management of police, court, correctional and legal operations, agency roles, goals, structural arrangements and administrative practices; applicability of theory and research; techniques and instruments of organization and management; and principles of change.			Contact Hours: 3 + 0 Prerequisites: JUST A200 and JUST A201. Provides a foundation in American policing. Examines the history, social organization, institutional contradictions, and contemporary challenges of the police in the United States. Special emphasis given to the use of empirical research methods to advance our understanding of policing.		
<b>JUST A241</b>	<b>Business Law I</b>	<b>3 CR</b>	<b>JUST A340</b>	<b>Family Law</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Crosslisted with: BA A241. Introduction to business law. Covers topics such as the American legal system, dispute resolution, constitutional and government regulation of business, torts, contract laws and theory, international law, and business ethics.			Contact Hours: 3 + 0 Prerequisites: JUST A110 or PARL A101. Crosslisted with: PARL A340. Comprehensive study of federal and state statutes and judicial doctrines governing familial relationships. Emphasis on marriage, divorce, child custody, support, property rights, adoption, and child protection. The impact of the Indian Child Welfare Act in Alaska family law is explored.		
<b>JUST A242</b>	<b>Business Law II</b>	<b>3 CR</b>	<b>JUST A343</b>	<b>Constitutional Law</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: JUST A241 or BA A241. Crosslisted with: BA A242. Continuation of Business Law I. Covers topics such as sales and leases, negotiables, debtor-creditor relations, agency, business organizations, and property protection.			Contact Hours: 3 + 0 Prerequisites: JUST A110 or PS A101. Crosslisted with: PS A343. Introduces students to American constitutional law through a study of the history of the Constitution and selected landmark Supreme Court cases. Topics covered are separation of powers, judicial review, civil rights and liberties, property and economic rights and others.		
<b>JUST A250</b>	<b>Development of Law</b>	<b>3 CR</b>	<b>JUST A344</b>	<b>Courts and Civil Liberties</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: JUST A110. Examines the philosophy and development of law in the U.S. and Alaska. Explores constitutional history, the law of group status, and concepts of distributive justice.			Contact Hours: 3 + 0 Prerequisites: JUST A250 or JUST A343 or PS A343. Intensive study of the development of civil liberties in the United States with emphasis on freedom of speech, free exercise of religion, separation of church and state, due process, equal protection of the law, and the right of privacy. Focuses on Supreme Court cases and literature and considers various influences on judicial decision- making.		
<b>JUST A251</b>	<b>Crime and Delinquency</b>	<b>3 CR</b>	<b>JUST A350</b>	<b>Contemporary Correctional Issues</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: JUST A110 or SOC A101. Crosslisted with: SOC A251. Course Attributes: UAA GER Social Sciences Requirement. Theoretical perspectives on the causes, consequences, and control of crime and delinquency. Survey of the major theoretical perspectives in the study of crime and delinquency with special attention to the application of empirical research methods to important theoretical issues.			Contact Hours: 3 + 0 Prerequisites: JUST A110. Reviews contemporary theory and research in the field of corrections and evaluates the operation of current correctional policies using evidence-based standards of effectiveness. Selected issues from contemporary explanations of American punishment policies to offender treatment programs.		
<b>JUST A255</b>	<b>Criminal Investigation</b>	<b>3 CR</b>	<b>JUST A352</b>	<b>Substantive Criminal Law</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: JUST A110. Introduces fundamentals of investigation. Topics include crime scene search and recording, collection and preservation of physical evidence, and scientific aids. Explores modus operandi, sources of information, interviews and interrogations, follow-up, and case preparation.			Contact Hours: 3 + 0 Prerequisites: JUST A110 with minimum grade of C or PARL A101 with minimum grade of C. Crosslisted with: PARL A352. Study of elements, purposes, and functions of substantive criminal law. Includes casebook study of general law of crimes and defenses with concentration on Alaska cases and statutes in Alaska Criminal Code. Historical and philosophical concepts are covered.		
<b>JUST A310</b>	<b>Introduction to Forensic Science</b>	<b>3 CR</b>	<b>JUST A354</b>	<b>Criminal Procedure</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: JUST A110 or PARL A101. Registration Restrictions: Junior standing. Provides an overview of forensic science and its relationship within the justice system. Focuses on the various areas of criminalistics, which typically involve the analysis done in government crime labs on physical evidence gathered in the course of a criminal investigation.			Contact Hours: 3 + 0 Prerequisites: JUST A110 or PARL A101. Crosslisted with: PARL A354. Analyzes constitutional, statutory, and rules-based limits on law enforcement personnel and prosecutors in the United States and the tension between public order and individual liberty in the criminal justice system. Explores federal and Alaska case law on search and seizure, interrogations and confessions, identification, arrests and charging, right to counsel, right to jury, sentencing, and double jeopardy.		
<b>JUST A320</b>	<b>Crime Prevention</b>	<b>3 CR</b>			
Contact Hours: 3 + 0 Prerequisites: JUST A200 and JUST A201 and [JUST A251 or SOC A251]. Examines primary, secondary, and tertiary crime prevention strategies and concepts. Explores in a multidisciplinary context the legal, moral and ethical considerations and problems of human and environmental manipulation. Emphasizes contemporary approaches to preventing criminal behavior.					



<b>JUST A355</b>	<b>Rural Justice</b>	<b>3 CR</b>	<b>JUST A401</b>	<b>Inferential Data Analysis in Justice</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: JUST A110 with minimum grade of D. Class Standing Restriction: Must be Junior or Senior. Registration Restrictions: Junior or senior standing Investigates rural crime and criminal justice. Examines the specific geographic, social, and cultural characteristics of rural communities and how these factors influence the prevalence and nature of crime and criminal justice. Reviews and assesses competing theories of justice. Comparative analysis of rural crime and criminal justice in other countries, with emphasis given to other Circumpolar nations.			Contact Hours: 3 + 0 Prerequisites: JUST A200 and JUST A201. Special Note: Recommend completion of GER Quantitative Skills requirement. Advanced social science research focusing on inferential data analysis. Provides an in-depth understanding of the logic and application of inferential techniques, particularly of multivariate models. Students will formulate and implement an analysis plan with real criminal justice data.		
<b>JUST A360</b>	<b>Justice Theory and Policy Analysis</b>	<b>3 CR</b>	<b>JUST A413</b>	<b>Communications Law</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: JUST A110. Critiques the essential theories underlying the operation of the justice system and analyzes contemporary policies within the framework of justice theory, policy formulation, implementation and evaluation. Emphasizes understanding the influence of politics, culture, and ideology on the operation of the justice system and evaluating the role of social science research evidence in developing a comprehensive understanding of the justice system and in formulating evidence-based justice policy.			Contact Hours: 3 + 0 Prerequisites: [JPC A202 with minimum grade of C] or JUST A110. Crosslisted with: JPC A413. Special Fees. Legal rights, privileges, and regulations of press, radio, television, Internet and films; libel, contempt, copyright, rights of privacy; decisions of regulatory bodies.		
<b>JUST A365</b>	<b>Comparative Justice Systems</b>	<b>3 CR</b>	<b>JUST A434</b>	<b>Police-Community Relations</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Compares and contrasts global justice systems and examines international problems related to crime and justice.			Contact Hours: 3 + 0 Prerequisites: JUST A200 and JUST A201. Class Standing Restriction: Must be Senior. Registration Restrictions: Senior standing or instructor approval Examines police-community relations in the United States. Explores common conceptions of the police role, from the perspective of both the public and the police themselves, and their impact on police-community relations. Particular emphasis is given to recent developments aimed at ameliorating strained relationships between the police and the various communities they serve.		
<b>JUST A366</b>	<b>Alcohol and Crime</b>	<b>3 CR</b>	<b>JUST A444</b>	<b>Terrorism and the Rule of Law</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Junior standing Examines the relationship between alcohol use and a variety of criminal behaviors including assault, homicide, and drunken driving. Special consideration is given to legislative and environmental approaches for preventing the negative consequences of alcohol use.			Contact Hours: 3 + 0 Prerequisites: JUST A110 and JUST A250. Selected case studies in modern terrorism are examined. Focuses on the relationship between civil liberties and laws and social policies intended to address terrorism.		
<b>JUST A371</b>	<b>Cinematic Images of Justice</b>	<b>3 CR</b>	<b>JUST A445</b>	<b>Probation, Parole and Community Corrections</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: JUST A110 with minimum grade of D. Class Standing Restriction: Must be Junior or Senior. Registration Restrictions: Junior or senior standing Visual survey of how the cinema has portrayed the criminal justice system. Special attention devoted to discrepancies between scientific research findings and popular stereotypes portrayed by the media. Attention given to each component of the criminal justice system. Impact of fictionalized events and justice system action/reaction will be juxtaposed with the reality of the justice system.			Contact Hours: 3 + 0 Prerequisites: JUST A210. Study of community-based alternatives to incarceration for adult and juvenile offenders. The purposes, operations and organization of probation and parole agencies and the decision making responsibilities of probation and parole officers will be examined. Private and public community residential programs will be analyzed.		
<b>JUST A375</b>	<b>Juvenile Justice and Delinquency</b>	<b>3 CR</b>	<b>JUST A460</b>	<b>Justice in Crisis</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Class Standing Restriction: Must be Fifth Year/Teaching Cert or Graduate Doctoral or Graduate Masters or Graduate Unspecified or Junior or Post-Masters or Senior. Registration Restrictions: Junior or senior standing Examines the theory and practice of juvenile justice. Reviews changing conceptions of justice and their impact on their impact on policy and legal rights. Explores formal and informal responses to juvenile delinquency, with specific attention to gender, race, and ethnic disparities.			Contact Hours: 3 + 0 Prerequisites: JUST A200 and JUST A201 and JUST A221 and JUST A250 and JUST A251 and JUST A330 and JUST A360. Major Restriction: Must be Justice major. Class Standing Restriction: Must be Senior. Registration Restrictions: Completion of all GER Tier 1 (Basic college-level skills) courses, Justice major and senior standing. Course Attributes: UAA GER Integrative Capstone. Critically examines various perspectives on justice and the ability of a society to maintain the ideal of justice. Compares conditions in different countries and investigates different social and historical conditions when justice was challenged. Analyzes the influence of culture, race/ethnicity and socioeconomic inequality on the operation of the American justice system.		
<b>JUST A398</b>	<b>Individual Research</b>	<b>1-6 CR</b>	<b>JUST A463</b>	<b>Biobehavioral Criminology</b>	<b>3 CR</b>
Contact Hours: 1-6 + 3-18 Prerequisites: JUST A200 and JUST A201. Registration Restrictions: Faculty permission Special Note: May be repeated for maximum of 6 credits. Under the direction of a supervising faculty member, students apply substantive and methodological training to a selected justice topic. Research activities may include, but are not limited to conduct literature reviews; compile bibliographies; formulate research hypotheses; develop research designs; collect, enter, analyze data; and interpret findings.			Contact Hours: 3 + 0 Prerequisites: JUST A200 and JUST A201 and JUST A221 and JUST A250 and [JUST A251 or SOC A251] and JUST A330 and JUST A360. Class Standing Restriction: Must be Senior. Registration Restrictions: Completion of all GER Tier 1 (Basic college-level skills) courses, and Senior standing. Course Attributes: UAA GER Integrative Capstone. Examines biobehavioral correlates of crime and ways these factors interact with socio-environmental and psychophysiological factors to impact crime. Analyzes historical and contemporary theories and research. Applies interacting factors to explain specific types of violent and non-violent criminal behavior.		
<b>JUST A400</b>	<b>Advanced Research Methods</b>	<b>3 CR</b>	<b>JUST A480</b>	<b>Correctional Systems Management</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: JUST A200 and JUST A201. Advanced social science research methods, focusing on specific sampling and data collection strategies, i.e., focus group, telephone survey, cluster vs. stratified sampling, etc. Evaluates the potential use of official statistics such as police and census data. Students will be expected to select appropriate samples and create appropriate data collection instruments and protocols.			Contact Hours: 3 + 0 Prerequisites: JUST A110 and JUST A251. Focuses on the management of correctional rehabilitation. Probation, imprisonment, parole and community-based corrections concepts are explored in-depth. Legal aspects of correctional administration, prisoner rights, and judicial involvement in penal systems. Correctional decision making processes, participatory management and citizen involvement are assessed. International comparisons of correctional systems are utilized to explore organizational and management options.		

## Course Descriptions

<b>JUST A488</b>	<b>Research Practicum</b>	<b>1-6 CR</b>
Contact Hours: 0 + 3-18 Prerequisites: JUST A200 and JUST A201. Registration Restrictions: Faculty permission required. The application of research skills to the study of a problem in the justice field. Involves field research and related independent study.		
<b>JUST A490</b>	<b>Contemporary Justice Issues</b>	<b>1-6 CR</b>
Contact Hours: 1-6 + 0 Prerequisites: JUST A110. Registration Restrictions: Junior standing. Special Note: May be repeated once for credit with a change in subtitle. A variable topics course which addresses current issues. Topics of national interest as well as those peculiar to Alaska will be included.		
<b>JUST A495</b>	<b>Internship</b>	<b>1-6 CR</b>
Contact Hours: 0 + 5-30 Registration Restrictions: Approval by internship coordinator. Grade Mode: Pass/No Pass. Special Note: May be repeated for a maximum of 6 credits. Specially arranged field experiences for advanced Justice majors and Paralegal Certificate students. Designed to expand knowledge and skills through supervised placements in justice, law and governmental settings.		
<b>JUST A498</b>	<b>Individual Research</b>	<b>1-4 CR</b>
Contact Hours: 1-4 + 3-12 Registration Restrictions: Research methods course, faculty permission. Participation in Justice Center research projects current literature, collect data, formulate and test hypotheses, analyze data, and complete a final research paper.		
<b>JUST A625</b>	<b>Seminar in Criminal Violation</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Graduate standing Applies theories of crime causation to specific types of criminal violations in a seminar format. Assesses methods of prevention and potential treatment of the violator. Includes crimes of violence, crimes against the public order, organized crime and white collar crime.		
<b>JUST A630</b>	<b>Justice Administrative Theory and Practice</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Graduate standing Synthesizes policy development with theory and research in the administration of justice organizations. Analyzes theories, practices, innovations and administration strategies.		
<b>JUST A640</b>	<b>Corrections Theory and Research</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Graduate Standing. Special Note: Offered as Demand Warrants. Theoretical foundation of correctional practice explored through reading of classic texts. Development and testing of hypotheses on rehabilitation, retribution, and incapacitation.		
<b>JUST A650</b>	<b>Policing Theory and Research</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Graduate Standing. Special Note: Offered Alternate Spring Semesters. Social science research on policing explored through readings on police use of force, domestic violence, and community policing. Development of proposals for empirical tests of hypotheses derived from the literature.		
<b>JUST A670</b>	<b>Administrative Law</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Graduate Standing. Special Note: Offered Spring Semesters. Legal guidelines for adoption, enforcement, and adjudication of violations of agency regulations at federal, state, and local levels as exercised by public sector management. Legislative, executive, and judicial controls on agency action. Research project required.		

## KOR - Korean

*Offered through the College of Arts and Sciences  
Administration/Humanities Building (ADM), Suite 287, 786-4030  
[www.uaa.alaska.edu/languages](http://www.uaa.alaska.edu/languages)*

<b>KOR A101</b>	<b>First Year Korean I</b>	<b>4 CR</b>
Contact Hours: 4 + 0 Special Fees. Introductory course for students with no previous knowledge of the Korean language. Develops listening, speaking, reading, and writing skills in Korean for effective communication at the elementary level. Introduces basic cross-cultural perspectives. Course conducted in Korean.		

## LAT - Latin

*Offered through the College of Arts and Sciences  
Administration/Humanities Building (ADM), Suite 287, 786-4030  
[www.uaa.alaska.edu/languages](http://www.uaa.alaska.edu/languages)*

<b>LAT A101</b>	<b>Elementary Latin I</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Special Fees. Introductory course for students with no previous knowledge of the Classical Latin language. Develops reading and writing skills in Latin for effective communication at the elementary level. Introduces historical perspectives. Course conducted in English.		
<b>LAT A102</b>	<b>Elementary Latin II</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: LAT A101. Special Fees. Continuation of LAT A101. Further develops elementary reading and writing skills in Classical Latin for effective communication. Enhances appreciation of historical perspectives. Course conducted in English.		

## LGOP - Logistics Operations

*Offered through the College of Business & Public Policy  
Edward & Cathryn Rasmuson Hall (RH), Room 309, 786-4100  
[www.cbpp.uaa.alaska.edu/logistics.asp](http://www.cbpp.uaa.alaska.edu/logistics.asp)*

Students taking any ACCT, BA, CIS, ECON, LGOP, LOG, or PADM course will be charged a single lab fee of \$25 for the semester. Applies to Elmendorf Air Force Base or Fort Richardson classes only when specifically noted on UAOnline. Does not apply to Chugiak-Eagle River classes.

<b>LGOP A110</b>	<b>Logistics, Information Systems and Customer Service</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Introduces the principles and practices of logistics and supply chain operations and how they are integrated into total supply chain management. Discusses the logic of integration concerning how organizations gain a sustainable competitive advantage by implementing total supply chain management. Outlines the role of information technology. Examines customer service from the perspectives of both the organization and the individual.		
<b>LGOP A120</b>	<b>Warehouse and Inventory Control Operations</b>	<b>3 CR</b>
Contact Hours: 3 + 0 An introduction to the fundamentals of warehouse management and inventory control operations and how they fit into logistics and the supply chain. The physical aspects of warehousing, layout, coding, safety, materials handling, inventory, and their implications for an organization are explored.		
<b>LGOP A125</b>	<b>Transportation Services</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Introduces transportation regulations and policies. Focuses on the roles and services provided by carriers in the rail, road, sea, air, pipeline, and water industries at the state, national, and global levels.		
<b>LGOP A160</b>	<b>Purchasing and Supply Management</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Introduces the role of purchasing and supply management in the success of the organization. Discusses modern purchasing and supply management, through clearly defined policy, procedures and processes. Facilitates organizational success by ensuring the organization gets the services and materials needed from their suppliers.		

**LGOP A235 Transport Operations Management 3 CR**  
 Contact Hours: 3 + 0  
 Introduces the role and importance of efficient and effective transportation operations of shippers and carriers. Focuses on costing and pricing, carrier and shipper strategies, and information technology.

## LING - Linguistics

*Offered through the College of Arts and Sciences  
 Professional Studies Building (PSB), Room 212, 786-4355  
<http://english.uaa.alaska.edu>*

**LING A101 The Nature of Language 3 CR**  
 Contact Hours: 3 + 0  
 Course Attributes: UAA GER Humanities Requirement.  
 A beginning course in the study of language. Introduction to systematic analysis of human language and description of its grammatical structure, distribution, diversity, and historical development.

**LING A201 Intermediate Grammar 3 CR**  
 Contact Hours: 3 + 0  
 An intermediate course in the descriptive analysis of syntax and related aspects of word-formation. Practice in traditional and contemporary methods of syntactic analysis, sentence structure and diagramming, in English.

## LOG - Logistics

*Offered through the College of Business & Public Policy  
 Edward & Cathryn Rasmuson Hall (RH), Room 203, 786-4100  
[www.cbpp.uaa.alaska.edu/logistics.asp](http://www.cbpp.uaa.alaska.edu/logistics.asp)*

Students taking any ACCT, BA, CIS, ECON, LGOP, LOG or PADM course will be charged a single lab fee of \$25 for the semester. Applies to Elmendorf Air Force Base or Fort Richardson classes only when specifically noted on UAOnline. Does not apply to Chugiak-Eagle River classes.

**LOG A378 Foundations of Logistics and Supply Chain Management 3 CR**  
 Contact Hours: 3 + 0  
 Registration Restrictions: College of Business and Public Policy majors must be admitted to upper-division standing.  
 Introduction to managerial theory and practice as applied to logistics and supply chain management. Management of procurement, storage and the movement of goods and material are discussed. The concept of total logistics cost is evaluated.

**LOG A379 Transportation Management 3 CR**  
 Contact Hours: 3 + 0  
 Prerequisites: LOG A378 with minimum grade of C.  
 Registration Restrictions: College of Business and Public Policy majors must be admitted to upper-division standing.  
 Study of the structure and operating characteristics of the major modes of transportation. Managerial techniques are applied to transportation decision-making. Procurement and choice of for-hire transportation services are discussed within supply chain management.

**LOG A415 Purchasing Management 3 CR**  
 Contact Hours: 3 + 0  
 Prerequisites: LOG A378 with minimum grade of C.  
 Registration Restrictions: College of Business and Public Policy majors must be admitted to upper-division standing.  
 Study of purchasing activities and cost management techniques. Discusses reverse auctions, contracting, and ethics in purchasing.

**LOG A416 International Logistics and Transportation Management 3 CR**  
 Contact Hours: 3 + 0  
 Prerequisites: LOG A378 with minimum grade of C and LOG A379 with minimum grade of C.  
 Registration Restrictions: College of Business and Public Policy majors must be admitted to the upper-division standing.  
 Study of the logistics activities of international firms. Analyzes international trade and transportation. Issues of international business structures, customs documentation, currency exchange rates, and international marketing are discussed.

**LOG A417 Materials Management 3 CR**  
 Contact Hours: 3 + 0  
 Prerequisites: LOG A378 with minimum grade of C.  
 Registration Restrictions: College of Business and Public Policy majors must be admitted to the upper-division standing.

Study of the management of material flows from the supplier to the end customer; from the raw materials dug out of the ground to retail items purchased by customers. Operation and cost analyses are discussed and applied to materials management.

**LOG A495 Internship in Global Logistics and Supply Chain Management 3 CR**  
 Contact Hours: 0 + 9  
 Prerequisites: LOG A378 with minimum grade of B.  
 Registration Restrictions: College of Business and Public Policy majors must be admitted to upper-division standing, GPA of 3.0 in major, GPA of 2.75 overall, and permission of major advisor.  
 Grade Mode: Pass/No Pass.  
 Special Fees.

Work experience in an approved position with supervision and training in various phases of global logistics and/or supply chain management within a business organization.

**LOG A601 Supply Chain Management Systems 3 CR**  
 Contact Hours: 3 + 0  
 Registration Restrictions: Acceptance into Graduate Certificate Program or department approval.  
 Special Fees.

Examines the changes in supply chain management systems and networks in today's complex, global market. Focuses on the interaction of system demands for purchasing and materials management; the interaction of ethical, contractual, and legal elements; the impact of strategic decisions; and the impact of supply network functional activities.

**LOG A602 Logistics 3 CR**  
 Contact Hours: 3 + 0  
 Registration Restrictions: Acceptance into Graduate Certificate Program or department approval.  
 Special Fees.

Examines the principles and practices of global supply chain and logistics management. Focuses on logistics integration and how global organizations can gain a sustainable competitive advantage by implementing programs of total logistics management into their organizations.

**LOG A603 Measurement in Supply Chains 3 CR**  
 Contact Hours: 3 + 0  
 Registration Restrictions: Acceptance into Graduate Certificate Program or department approval.  
 Special Fees.

Examines the metrics and tools needed to create value by logistics within the global supply chain. Focuses on complexity factors and their impact on the creation of this value. Conducts performance valuation analyses using systems analysis, assumption-based planning, project management techniques, and activity-based cost accounting.

**LOG A604 Radio Frequency Identification 3 CR**  
 Contact Hours: 3 + 0  
 Prerequisites: LOG A601 and LOG A602 and LOG A603.  
 Registration Restrictions: Acceptance into Graduate Certificate Program or department approval.  
 Special Fees.

Explores how Radio Frequency Identification (RFID) is revolutionizing supply chain management systems and logistics systems. Focuses on how to design, develop and integrate logistics information systems to appraise the value of experimental RFID technology compared to more traditional technologies.

**LOG A605 Transportation Systems Management 3 CR**  
 Contact Hours: 3 + 0  
 Prerequisites: LOG A601 and LOG A602 and LOG A603.  
 Registration Restrictions: Acceptance into Graduate Certificate Program or department approval.  
 Special Fees.

Examines the management of passenger transportation systems in the travel industry. Focuses on different forms of transportation as they relate to travel industry management and policy.

## Course Descriptions

### LOG A606 Lean Operations 3 CR

Contact Hours: 3 + 0

Prerequisites: LOG A601 and LOG A602 and LOG A603.

Registration Restrictions: Acceptance into Graduate Certificate Program or department approval.  
Special Fees.

Examines the concepts of lean operations and shows through examples, case studies, simulations, and hands-on projects how organizations can reduce the wastes that adversely impact profitability and performance. Focuses on value-stream mapping, synchronized flow, pull systems, and any current reengineering concepts that may be appropriate, such as kanban systems, the 5S's, quick change-over, theory of constraints, and total productive maintenance.

### LOG A607 Radio Frequency Capstone 3 CR

Contact Hours: 3 + 0

Prerequisites: LOG A604.

Registration Restrictions: Acceptance into Graduate Certificate Program or department approval.  
Special Fees.

Demonstrate mastery of the knowledge and skills expected of someone who is a supply chain management professional through completion of a business case development project using radio frequency identification or RFID.

### LOG A608 Travel/Transportation Capstone 3 CR

Contact Hours: 3 + 0

Prerequisites: LOG A605.

Registration Restrictions: Acceptance into Graduate Certificate Program or department approval.  
Special Fees.

Examines an organization with an in-depth analysis of a strategic problem, issue, or opportunity facing that organization. Focuses on integration of concepts learned in other courses applied to a selected field study project.

### LOG A609 Supply Chain Quality Capstone 3 CR

Contact Hours: 3 + 0

Prerequisites: LOG A606.

Registration Restrictions: Acceptance into Graduate Certificate Program or department approval.  
Special Fees.

Examines approaches that organizations can take to work with their suppliers to assist them in all facets of improvement with the objective of becoming a preferred supplier. Focuses on concepts, such as supplier total quality, six-sigma quality, project management skills, quality standard and supplier selection and development.

### LOG A661 Supply Chain Strategic Planning 6 CR

Contact Hours: 6 + 0

Level Restriction: Must be Graduate - UAA level.

Registration Restrictions: Admission to the Master of Science, Global Supply Chain Management Program and completion of GMAT  
Special Fees.

Study of supply chain management as corporate strategy within a globally competitive environment. Theories of strategy and the principles of financial accounting are used to evaluate various supply chain systems. Logistical processes within supply chains are assessed in terms of their structure and efficiency.

### LOG A662 Supply Chain Knowledge Management 6 CR

Contact Hours: 6 + 0

Prerequisites: LOG A661.

Level Restriction: Must be Graduate - UAA level.

Registration Restrictions: Admission to the Master of Science, Global Supply Chain Management Program and completion of GMAT  
Special Fees.

Study of theories, information systems, and practices used to share information and knowledge within the community of practitioners operating in a global supply chain. Challenges and opportunities associated with applying information technology to supply chain systems are evaluated.

### LOG A663 International Supply Chain Management and Marketing Strategies 6 CR

Contact Hours: 6 + 0

Prerequisites: LOG 661.

Level Restriction: Must be Graduate - UAA level.

Registration Restrictions: Admission to Master of Science, Global Supply Chain Management Program and completion of GMAT  
Special Fees.

Study of logistical activities of international businesses. Sourcing, manufacturing, marketing, and transportation are assessed in a cross-border, cross-cultural context. The impacts of import-export practices, foreign direct investment, and trade policy on supply chain management are determined and evaluated.

### LOG A664 Supply Chain Management Leadership 6 CR

Contact Hours: 6 + 0

Prerequisites: LOG A661.

Level Restriction: Must be Graduate - UAA level.

Registration Restrictions: Admission to Master of Science, Global Supply Chain Management Program and completion of GMAT  
Special Fees.

Study of the human factors involved in effective supply chain management. Techniques for motivation, human resource management, evaluation of organizational culture and change, leadership, and negotiation are developed and assessed.

### LOG A665 Supply Chain Measurement 6 CR

Contact Hours: 6 + 0

Prerequisites: LOG A662.

Level Restriction: Must be Graduate - UAA level.

Registration Restrictions: Admission to Master of Science, Global Supply Chain Management Program and completion of GMAT  
Special Fees.

Study of the tools needed to measure and sell the value created by logistics throughout the supply chain. An evaluation of factors of complexity and their impact on the creation of value. Physical valuation will be determined through the techniques of supply chain modeling and computer-based simulation. Financial valuation will be determined through activity-based cost accounting and capital budgeting techniques.

### LOG A678 Strategic Logistics and Global Supply Chain Management 3 CR

Contact Hours: 3 + 0

Level Restriction: Must be Graduate - UAA level.

Registration Restrictions: Graduate standing

Study of logistics and supply chain management as related to strategic activities within domestic and international organizations. Analyzes and evaluates decision-making with respect to outsourcing, purchasing, environmental impact, and supply chain security.

## LS - Library Science

*Offered through the College of Arts and Sciences*

*Consortium Library Reference Desk, 786-1848*

*<http://consortiumlibrary.org>*

### LS A101 Library Resources and Information Retrieval 1 CR

Contact Hours: 1 + 0

An introduction to academic library research with an emphasis on electronic resources.

### LS A211 Library Research in the 21st Century 3 CR

Contact Hours: 3 + 0

Covers traditional and electronic library sources, the Internet as a research tool, and the critical and ethical uses of information.

## LSIC - Liberal Studies Integrated Core

*Offered through the College of Arts and Sciences*

*Beatrice McDonald Hall (BMH), Room 213, 786-6049*

*<http://liberalstudies.uaa.alaska.edu>*

### LSIC A231 Truth, Beauty, and Goodness 3 CR

Contact Hours: 3 + 0

Prerequisites: (ENGL A111 or concurrent enrollment).

Crosslisted with: PHIL A231.

Integrated approach to the study of critical and normative thinking, including: standards of truth in logic, mathematics, and science; standards of ethical goodness, and standards for the critical appraisal of art and the beautiful.

### LSIC A331 Power, Authority, and Governance 3 CR

Contact Hours: 3 + 0

Prerequisites: LSSS A111.

An interdisciplinary examination of the origins, nature, and structures of power, authority, and governance; the nature of sovereignty; and the processes of reform and revolution. Various disciplinary perspectives are employed in three to four major case studies. Examples may include the Russian Revolution, the American Civil War, the French Revolution, Globalization and Democracy, the Taiping Revolt, the Meiji Restoration, the American Civil Rights Movement, and the Alaska Native Sovereignty Movement.

**LSIC A332 Science, Technology, and Culture 3 CR**

Contact Hours: 3 + 0

Prerequisites: LSIS A202 and LSSS A111 and LSIC A231 and (LSSS A311 or concurrent enrollment).

Explores the interplay of scientific discovery, technological advancement, and the transformation of human societies. It does so by examining key ethical, social, economic, cultural, and policy issues associated with modern science and technology. A speaking intensive course.

**LSIC A392 Seminar in Liberal Studies 1 CR**

Contact Hours: 1 + 0

Prerequisites: COMM A111 and ENGL A111.

An advanced Learning Community approach to the study of issues in the natural sciences, social sciences, humanities, and performing and fine arts, using readings, lectures, in-depth small group discussion and activities outside of class. Class will have different focus each year. A writing and speaking intensive course.

**LSIC A488A Capstone Project I: Design and Research 3 CR**

Contact Hours: 3 + 0

Prerequisites: LSSS A311 and LSSS A312 and LSIC A331 and LSIC A332.

Registration Restrictions: Completion of 9 credits of Liberal Studies disciplinary concentrations. Completion of GER Tier 1 (basic college-level skills) courses. Course Attributes: UAA GER Integrative Capstone.

The design and initial research phase of a substantial year-long capstone research or creative project. Students will work under the guidance of a faculty or community professional mentor, typically in small groups, to prepare and present a research or creative project proposal and to begin data collection or project implementation.

**LSIC A488B Capstone Project II: Analysis and Presentation 3 CR**

Contact Hours: 3 + 0

Prerequisites: LSIC A488A with minimum grade of C.

The analysis and presentation phase of a substantial year-long capstone research or creative project. Students will continue working under the direction of a faculty or community professional mentor, typically in small groups, to complete and present a research or creative project. Requires bi-weekly colloquia with fellow students, mentors, and instructor, and public presentation of final research or creative project.

**LSIS - Liberal Studies Integrated Sciences***Offered through the College of Arts and Sciences**Beatrice McDonald Hall (BMH), Room 213, 786-6049**<http://liberalstudies.uaa.alaska.edu>***LSIS A101 Discoveries in Science 1 CR**

Contact Hours: 1 + 0

Course Attributes: UAA GER Natural Sciences Requirement.

Lecture series covering famous scientists and their discoveries. Historical and societal factors that laid the framework for each discovery and how these discoveries were accepted in their time. How the discoveries affect modern science and society. Scientists from different disciplines will present lectures and lead discussions.

**LSIS A102 Origins: Earth-Solar System-Life 5 CR**

Contact Hours: 3 + 6

Prerequisites: (LSIS A101 or concurrent enrollment) and MATH A105.

Course Attributes: UAA GER Natural Science w/ Lab.

Special Fees.

Origins of earth including its formation, its place in the universe, and the life on this planet. Processes that shape the earth, reasons that earth contains life, and the varieties of past and present forms of life.

**LSIS A201 Life on Earth 5 CR**

Contact Hours: 3 + 6

Prerequisites: LSIS A102 and (MATH A107 or concurrent enrollment).

Course Attributes: UAA GER Natural Science w/ Lab.

Special Fees.

Examines the biodiversity of life on earth, in the context of chemistry, cell biology, genetics, physiology, ecology, and evolution. Laboratory sessions are designed to increase the student's understanding of the process of science, hypothesis testing, experimental design, classification, and content knowledge. A writing and speaking intensive course.

**LSIS A202 Concepts and Processes: Natural Sciences 5 CR**

Contact Hours: 3 + 6

Prerequisites: LSIS A201 and MATH A107.

Course Attributes: UAA GER Natural Science w/ Lab.

Special Fees.

Fundamental concepts in physics and chemistry. Emphasizes logical connections between quantum mechanical view of matter and major themes of modern chemistry and biochemistry. A writing and speaking intensive course.

**LSSS - Liberal Studies Social Sciences***Offered through the College of Arts and Sciences**Beatrice McDonald Hall (BMH), Room 213, 786-6049**<http://liberalstudies.uaa.alaska.edu>***LSSS A111 Cultural Foundations of Human Behavior 3 CR**

Contact Hours: 3 + 0

Course Attributes: UAA GER Social Sciences Requirement.

Addresses culture as a concept and phenomenon, including its origins, variety, utility, subtlety and complexity, issues of identity, and cultural aspects of human lives from various social science perspectives.

**LSSS A311 People, Places, and Ecosystems 3 CR**

Contact Hours: 3 + 0

Prerequisites: STAT A252 and LSSS A111 and [LSIS A201 or BIOL A102].

Examines historical and current relationships between humans and their surrounding environments, both natural and constructed. Considers the coevolution of human societies and the biosphere, the idea of place, and the challenges of living in today's human-dominated ecosystems. Uses workshops and short field trips to collect and examine data about human-environment relationships from several social science perspectives. Requires extensive writing and multidisciplinary analysis.

**LSSS A312 Individuals, Groups, and Institutions 3 CR**

Contact Hours: 3 + 0

Prerequisites: (ANTH A250 or concurrent enrollment) and LSSS A111.

Registration Restrictions: Completion of GER Tier 1 (basic college-level skills) courses.

Course Attributes: UAA GER Integrative Capstone.

The study of how individuals influence and are influenced by groups and institutions. Emphasis on individuals' roles in group and institutional activities, group and institutional influence on people's lives, and dynamics in the formation and change of institutions.

**MA - Medical Assisting***Offered through the Community & Technical College**Allied Health Sciences Building (AHS), Room 161, 786-6928**[www.uaa.alaska.edu/ctc/programs/alliedhealth/ma](http://www.uaa.alaska.edu/ctc/programs/alliedhealth/ma)***MA A101 Medical Terminology 3 CR**

Contact Hours: 3 + 0

Medical terminology, including analysis of its roots and origins. Includes anatomical, diagnostic, operative, and laboratory terminology of human body systems and selected medical specialties. Emphasizes spelling and pronunciation.

**MA A104 Essentials of Human Disease 3 CR**

Contact Hours: 3 + 0

Prerequisites: MA A101 with minimum grade of C.

Presents a systematic approach to the study of human diseases with an emphasis on signs and symptoms, etiology, and treatment of the more common diseases and clinical disorders. Includes the application of advanced medical terminology in the study of human diseases and pathology.

**MA A120 Medical Office Procedures 4 CR**

Contact Hours: 3 + 2

Special Fees.

Special Note: MA A120A and MA A120B satisfy the requirement for MA A120.

Introduces business aspects of medical offices and administrative duties of medical assistants. Includes telephone and reception procedures, appointment scheduling, medical law and ethics, essentials of medical records, professionalism, and financial record keeping for the medical office.

**MA A120A Medical Office Procedures A: Legal and Ethical Issues in Medical Assisting 2 CR**

Contact Hours: 2 + 0

Special Note: MA A120A and MA A120B satisfy the requirement for MA A120.

Introduces medical law and ethics for medical office personnel and allied health professionals. Includes medicolegal terminology, confidentiality of medical information, HIPAA regulations, informed consent requirements, and recommendations for prevention of professional liability claims.

**MA A120B Medical Office Procedures B: An Introduction to Administrative Duties 2 CR**

Contact Hours: 1 + 2

Special Fees.

Special Note: MA A120A and MA A120B satisfy the requirement for MA A120.

Introduces administrative and business aspects of the medical office and administrative duties of medical assistants. Includes general office duties, telephone and reception procedures, appointment scheduling, essentials of medical records, and financial record keeping for the medical office.

## Course Descriptions

<b>MA A140</b>	<b>Medical Transcription I</b>	<b>2-3 CR</b>
Contact Hours: 1 + 3-6 Prerequisites: (MA A101 with minimum grade of C or concurrent enrollment). Registration Restrictions: 45 wpm keyboarding in Windows word processing. Special Fees. Special Note: Two (2) credits of this course are required for the Medical Assisting AAS degree. Students wishing to specialize in medical transcription may wish to register for three (3) credits, which requires the transcribing of additional medical reports. Provides instruction in the machine transcribing of physicians' medical dictation. Introduces the use of transcription equipment, formatting of various medical reports, and transcription techniques and guidelines. Includes the transcribing of medical reports.		
<b>MA A220</b>	<b>Coding for the Medical Office</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: MA A101 and BIOL A100 or [BIOL A111 and BIOL A112]. Special Fees. Presents procedural and diagnostic coding in the ambulatory health care setting. Includes principles of medical coding, conventions and guidelines, importance of accuracy in coding, and an understanding of legal and ethical issues. Emphasis on application of knowledge demonstrated through performance of procedural and diagnostic coding activities.		
<b>MA A230</b>	<b>Billing and Insurance for the Medical Office</b>	<b>3 CR</b>
Contact Hours: 2 + 2 Prerequisites: CIS A105 and MA A220. Special Fees. Examines health care reimbursement issues including the fundamentals of medical billing and the reimbursement process, computerized patient accounting, and the submission and management of medical insurance claims.		
<b>MA A240</b>	<b>Medical Transcription II</b>	<b>3 CR</b>
Contact Hours: 1 + 4 Prerequisites: MA A140 with minimum grade of C. Special Fees. Advanced and complex machine transcription from various medical specialties.		
<b>MA A250</b>	<b>Clinical Procedures I</b>	<b>4 CR</b>
Contact Hours: 3 + 2 Special Fees. Introduces clinical duties of medical assisting. Includes asepsis, infection control, vital signs, assisting with routine patient care, maintenance of the exam room and medical equipment.		
<b>MA A255</b>	<b>Clinical Procedures II</b>	<b>4 CR</b>
Contact Hours: 3 + 2 Prerequisites: MA A250 with minimum grade of C. Special Fees. Clinical duties of medical assisting. Includes minor office surgery, administration of medications, CLIA-waived laboratory procedures, venipuncture, electrocardiography and emergency procedures.		
<b>MA A295</b>	<b>Medical Office Externship</b>	<b>5 CR</b>
Contact Hours: 0.5 + 15 Grade Mode: Pass/No Pass. Special Fees. Special Note: A grade of C or better in all courses required for the nontranscribed departmental Certificate of Completion in Medical Assisting. Provides an opportunity to apply principles, skills and knowledge in private medical offices and clinics as final preparation for employment in the field. Duties are assigned by the UAA instructor and supervised by the physician(s) and medical assistants. Learning is enhanced by on-campus seminars.		
<b>MA A320</b>	<b>Advanced Case Studies in Medical Coding</b>	<b>2 CR</b>
Contact Hours: 2 + 0 Prerequisites: MA A220. Grade Mode: Pass/No Pass. Special Fees. Presents in-depth practice with procedural and diagnostic coding as it applies to the ambulatory care setting through the analysis of case studies. Strengthens and improves coding skills by comprehensively coding both diagnoses and procedures for the same medical record.		

## MATH - Mathematics

*Offered through the College of Arts and Sciences  
Social Sciences Building (SSB), Room 154, 786-1744  
[www.math.uaa.alaska.edu](http://www.math.uaa.alaska.edu)*

Each student enrolled in MATH A050 through MATH A205, or MATH A272 on campus will be charged a Math Lab Fee as noted below.

<b>MATH A050A</b>	<b>Basic Mathematics</b>	<b>1 CR</b>
Contact Hours: 1 + 0 Special Fees. Special Note: MATH A050A, A050B, A050C combined are equivalent to MATH A054. Includes addition, subtraction, multiplication, and division (the four basic operations) on whole numbers, fractions and decimals, and a discussion of order of operations. Computation involving ratios, proportion, and percent is also included. The topic of math anxiety is dealt with throughout the course.		
<b>MATH A050B</b>	<b>Review of Mathematical Concepts</b>	<b>1 CR</b>
Contact Hours: 1 + 0 Registration Restrictions: MATH A050A or Placement Test. Special Fees. Special Note: MATH A050A, A050B, A050C combined are equivalent to MATH A054. Includes a review of elementary geometry (area, perimeter, and volume calculations), the Pythagorean Theorem, similar and congruent triangles, order of operations, and an introduction to mathematical expressions using variables.		
<b>MATH A050C</b>	<b>Introduction to Equations</b>	<b>1 CR</b>
Contact Hours: 1 + 0 Registration Restrictions: MATH A050B or Placement Test. Special Fees. Special Note: MATH A050A, A050B, A050C combined are equivalent to MATH A054. Explores mathematical expressions using real numbers, exponents, and radicals. Also included is an overview of properties of equalities, solving equations, inequalities, elementary word problems, and the four operations on polynomials.		
<b>MATH A054</b>	<b>Prealgebra</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Special Fees. Special Note: MATH A050A, A050B, A050C combined are equivalent to MATH A054. Basic concepts of prealgebra mathematics. Includes arithmetic operations and applications, whole numbers, integers, fractions, decimals, ratio and proportion, percent, geometry and measures, exponents, algebraic expressions, polynomials, solution of simple equations, and introduction to graphing and statistics.		
<b>MATH A055</b>	<b>Elementary Algebra</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: MATH A054 with minimum grade of C. Registration Restrictions: If prerequisite is not satisfied, appropriate SAT score or approved UAA Placement Test required. Special Fees. Beginning algebra course. Includes operations with signed numbers and polynomials, factoring, exponents, radicals, algebraic fractions, solution of linear equations, systems of equations, linear inequalities, and quadratic equations. Basic graphing.		
<b>MATH A060</b>	<b>Essential Mathematics</b>	<b>4 CR</b>
Contact Hours: 4 + 0 Special Fees. Special Note: Equivalent to MATH A054 and MATH A055. Credit will not be given for both MATH A055 and MATH A060. Placement test not required. Teaches the concepts of basic arithmetic and introductory algebra. Includes operations and properties on real numbers, ratio, proportion, percent, scientific notation and variation, topics from consumer mathematics, evaluation of literal expressions, solution and graphs of linear equations and inequalities; radicals and exponents, polynomials, factoring and special products, fundamental operations with algebraic fractions, solution of quadratic equations, and elementary systems of equations. Geometric formulae are presented on a case-by-case basis as needed.		
<b>MATH A101</b>	<b>Technical Mathematics</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: MATH A055. Special Note: This course will not satisfy the Mathematics requirement for the Associate of Arts Degree. Provides mathematical training for students enrolled in technical programs. Includes algebraic operations, factoring, rational expressions, exponents, quadratic equations, logarithms, systems of equations, geometry, right-triangle trigonometry, and measurement and tolerances. Emphasis on problem-solving and applications.		

<b>MATH A105</b>	<b>Intermediate Algebra</b>	<b>3 CR</b>	<b>MATH A200</b>	<b>Calculus I</b>	<b>4 CR</b>
Contact Hours: 3 + 0 Prerequisites: MATH A055 with minimum grade of C or MATH A060 with minimum grade of C. Registration Restrictions: If prerequisite is not satisfied, appropriate SAT or ACT scores or approved UAA Placement Test required. Special Fees. Covers radicals, solutions of quadratic equations, graphing of quadratic and other functions, functions and inverses, and introduction to logarithmic and exponential functions. Also covers applications, systems of equations, and rational expressions.			Contact Hours: 4 + 0 Prerequisites: [MATH A107 with minimum grade of C and MATH A108 with minimum grade of C] or [MATH A109 with minimum grade of C]. Registration Restrictions: If prerequisite is not satisfied, appropriate SAT, ACT, or AP scores or approved UAA Placement Test required. Course Attributes: UAA GER Quantitative Skill Requirement. Special Fees. A first course in calculus covering limits, including those with indeterminate form; and derivatives of algebraic and transcendental functions. Applications of derivatives including curve sketching, rates of change, and Newton's Method. Definite and indefinite integrals, including integration by substitution.		
<b>MATH A107</b>	<b>College Algebra</b>	<b>4 CR</b>	<b>MATH A201</b>	<b>Calculus II</b>	<b>4 CR</b>
Contact Hours: 4 + 0 Prerequisites: MATH A105 with minimum grade of C. Registration Restrictions: If prerequisite is not satisfied, appropriate SAT or ACT scores or approved UAA Placement Test required. Course Attributes: UAA GER Quantitative Skill Requirement. Special Fees. Special Note: A student may apply no more than 7 credits from any combination of MATH A107, A108, and A109 toward the graduation requirements for any baccalaureate degree. Covers equations and inequalities, function theory, solution of equations greater than second degree, determinants and matrices, systems of equations and inequalities, exponential and logarithmic function, graphs and equations of conic sections, including applications of all these topics; binomial theorem; sequences and series; mathematical induction and combinatoric notation.			Contact Hours: 4 + 0 Prerequisites: MATH A200 with minimum grade of C. Course Attributes: UAA GER Quantitative Skill Requirement. Special Fees. Covers integration techniques and applications; sequences and series, including convergence tests; curves in the plane and polar coordinates.		
<b>MATH A108</b>	<b>Trigonometry</b>	<b>3 CR</b>	<b>MATH A202</b>	<b>Calculus III</b>	<b>4 CR</b>
Contact Hours: 3 + 0 Prerequisites: MATH A107 with minimum grade of C. Registration Restrictions: If prerequisite is not satisfied, appropriate SAT or ACT scores or approved UAA Placement Test required. Course Attributes: UAA GER Quantitative Skill Requirement. Special Fees. Special Note: A student may apply no more than 7 credits from any combination of MATH A107, A108 and A109 toward the graduation requirements for any baccalaureate degree. Covers angular measure and trigonometric functions, fundamental trigonometric identities, composite angle identities, and graphs of trigonometric functions. Also includes complex numbers, DeMoivre's theorem, solution of right and oblique triangles, solution of trigonometric equations, inverse trigonometric functions and vectors. Provides calculation practice helpful for physics, engineering and survey technology courses.			Contact Hours: 4 + 0 Prerequisites: MATH A201 with minimum grade of C. Special Fees. Vectors, partial differentiation and multiple integration. Green's Theorem, Stokes' Theorem and the Divergence Theorem.		
<b>MATH A109</b>	<b>Precalculus</b>	<b>6 CR</b>	<b>MATH A205</b>	<b>Communicating Mathematical Ideas</b>	<b>3 CR</b>
Contact Hours: 6 + 0 Prerequisites: MATH A105 with minimum grade of B. Registration Restrictions: If prerequisite is not satisfied, appropriate SAT or ACT scores or approved UAA Placement Test required. Course Attributes: UAA GER Quantitative Skill Requirement. Special Fees. Special Note: Intensive course designed for students who intend to take the calculus sequence (MATH A200, A201, A202). A student may apply no more than seven credits from any combination of MATH A107, A108 and A109 towards the graduation requirements for any baccalaureate degree. Intensive course covering polynomial, rational, exponential, logarithmic and trigonometric functions, composite and inverse functions, conic sections, matrices and determinants, solutions of equations and inequalities, vectors, complex numbers, DeMoivre's theorem, polar coordinates, parametric and polar graphs, sequences and series, binomial theorem, and mathematical induction.			Contact Hours: 3 + 0 Prerequisites: EDSE A212 with minimum grade of C or PSY A245 with minimum grade of C. Registration Restrictions: Department Approval. Minimum grade of C in GER Quantitative Skills course. Special Fees. Special Note: MATH A205 with a minimum grade of C is required to meet State of Alaska Teacher Certification standards. MATH A205 does not satisfy the General Education Quantitative Skills requirement. Elementary set theory, numeration systems, basic number theory and divisibility, problem-solving strategies, topics from geometry, including the properties of two- and three-dimensional geometric objects. Field experience in the classroom may be required.		
<b>MATH A172</b>	<b>Applied Finite Mathematics</b>	<b>3 CR</b>	<b>MATH A215</b>	<b>Introduction to Mathematical Proofs</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: MATH A105 with minimum grade of C. Registration Restrictions: If prerequisite is not satisfied, appropriate SAT or ACT scores or approved UAA Placement Test required. Course Attributes: UAA GER Quantitative Skill Requirement. Special Fees. Covers linear and quadratic equations and inequalities, algebra of matrices, introductory linear programming, exponential and logarithmic functions. Applications emphasizing the relationships of these mathematical concepts to quantitative decision making in the managerial and social sciences.			Contact Hours: 3 + 0 Prerequisites: MATH A201. Study of logic, sets, relations, functions, cardinality, and an introduction to mathematical proof techniques.		
			<b>MATH A231</b>	<b>Introduction to Discrete Mathematics</b>	<b>3 CR</b>
			Contact Hours: 3 + 0 Prerequisites: MATH A107. Registration Restrictions: If prerequisite is not satisfied, appropriate SAT, ACT, or AP scores or approved UAA placement test required. Special Fees. Logic in its connections with mathematical proof, set theory, Boolean algebra, and combinatorial circuits; techniques of counting; elements of graph theory. Additional topics related to the mathematics of computing may include graph and tree traversal, finite automata, and the basics of complexity and formal languages.		
			<b>MATH A272</b>	<b>Applied Calculus</b>	<b>3 CR</b>
			Contact Hours: 3 + 0 Prerequisites: MATH A107 with minimum grade of C or MATH A172 with minimum grade of C. Course Attributes: UAA GER Quantitative Skill Requirement. Special Fees. Covers functions and graphs, differentiation, exponential and logarithmic functions, antidifferentiation and integration, functions of several variables. Applications of these mathematical concepts.		
			<b>MATH A302</b>	<b>Ordinary Differential Equations</b>	<b>3 CR</b>
			Contact Hours: 3 + 0 Prerequisites: MATH A202. Special Fees. Nature and origin of differential equations, first order equations and solutions, linear differential equations with constant coefficients, systems of equations, power series solutions, operational methods, Laplace Transform methods and applications.		
			<b>MATH A303</b>	<b>Introduction to Modern Algebra</b>	<b>3 CR</b>
			Contact Hours: 3 + 0 Prerequisites: MATH A202 and MATH A215. Introduction to sets, groups, rings and fields.		

## Course Descriptions

<b>MATH A305</b>	<b>Introduction to Geometries</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: MATH A202 and MATH A215. Euclidean and non-Euclidean plane geometry and topics selected from affine geometry and projective geometry.		
<b>MATH A306</b>	<b>Discrete Methods</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: MATH A200 and [MATH A215 or MATH A231]. Graph theoretical and combinatorial problem solving. Discrete models for applied problems are introduced and algorithmic as well as closed form solution techniques are applied.		
<b>MATH A314</b>	<b>Linear Algebra</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: MATH A202. Special Fees. Linear equations, finite dimensional vector spaces, matrices, determinants, linear transformations, and characteristic values. Inner product spaces.		
<b>MATH A321</b>	<b>Analysis of Several Variables</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: MATH A202 and MATH A314. Vector calculus, exterior calculus, optimization techniques, and integration with applications. Emphasizes the use of linear and multilinear algebra techniques to generalize the basic methods of calculus to several independent and dependent variables.		
<b>MATH A324</b>	<b>Advanced Calculus</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: MATH A202 and MATH A215. Investigations of the limit concept with special reference to functions on the real line. Topics include continuous functions and their properties, sequences and series, differentiation and integration of functions.		
<b>MATH A371</b>	<b>Stochastic Processes</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: MATH A201 and STAT A307. Theory and applications, including moment generating functions, conditional expectation, Poisson processes, Markov chains, and topics selected from branching processes, queuing theory, random walks, and reliability theory.		
<b>MATH A407</b>	<b>Mathematical Statistics I</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: MATH A202 and STAT A307. Topics include random variables, distribution functions, expectation and moment generating function, special parametric families of univariate distributions, joint and conditional distributions, stochastic independence, conditional expectation, distributions of functions of random variables, convergence concepts, and parametric estimation by maximum likelihood.		
<b>MATH A408</b>	<b>Mathematical Statistics II</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: MATH A407. Topics include sampling distributions, order statistics, point estimation, maximum likelihood estimators, consistency, unbiasedness, mean square error, Cramer-Rao lower bound, asymptotics of statistics, sufficient statistics, uniformly minimum variance and unbiased (UMVU) estimators, confidence intervals and hypotheses testing, lemma of Neyman Pearson, and statistical decision theory.		
<b>MATH A410</b>	<b>Introduction to Complex Analysis</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: MATH A202. Analytic functions, Cauchy's Theorem, sequences and series, integration and residues.		
<b>MATH A420</b>	<b>History of Mathematics</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: MATH A202 and MATH A215. Registration Restrictions: Completion of GER Tier 1 (basic college-level skills) courses and junior standing. In addition to MATH prerequisites, one 100-level GER HIST prefix course is required. Course Attributes: UAA GER Integrative Capstone. Historical development of mathematical concepts in algebra, geometry, number theory, analytical geometry, and calculus.		
<b>MATH A422</b>	<b>Partial Differential Equations</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: MATH A302. Analysis and solution of partial differential equations. Initial and boundary value problems for elliptic, hyperbolic and parabolic types will be classified and solved. Additional topics will be selected by faculty member teaching the course.		

<b>MATH A423</b>	<b>Advanced Engineering Mathematics</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: MATH A302. Special Note: Course does not satisfy Mathematics Major requirements. A practical review of mathematics for engineers. Includes partial differential equations, vector and matrix analysis, Fourier analysis, and complex analysis.		
<b>MATH A426</b>	<b>Numerical Methods</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: MATH A201. Special Fees. Introduction to numerical methods and software packages to solve applied problems. Topics include matrices with emphasis on using them to solve systems of linear equations, methods of solving non-linear equations, techniques to interpolate and approximate functions, methods of numerical differentiation and integration, and numerical methods to solve ordinary and partial differential equations. MATLAB and Mathematica will be used to solve applied problems with these techniques.		
<b>MATH A490A</b>	<b>Selected Topics in Pure Mathematics</b>	<b>1-3 CR</b>
Contact Hours: 1-3 + 0 Prerequisites: MATH A215 and MATH A314. Registration Restrictions: Instructor permission required. Special Note: Depending on topic selected, use of symbolic computation software may be required. May be repeated once for credit with a change in subtitle. Advanced topics in mathematics selected as continuations of, or complements to, the content of upper-division undergraduate mathematics courses. Emphasis on theoretical developments.		
<b>MATH A490B</b>	<b>Selected Topics in Applied Mathematics</b>	<b>1-3 CR</b>
Contact Hours: 1-3 + 0 Prerequisites: MATH A302 and MATH A314. Registration Restrictions: Instructor permission required. Special Fees. Special Note: Depending on topic selected, use of numerical and/or symbolic computation software, including scientific programming, may be required. May be repeated once for credit, with a change in subtitle. Advanced topics in mathematics applied to science and technology.		
<b>MATH A495</b>	<b>Mathematics Practicum</b>	<b>1-3 CR</b>
Contact Hours: 0 + 3-9 Prerequisites: MATH A202. Registration Restrictions: Faculty permission required. Grade Mode: Pass/No Pass. Special Note: May be repeated up to a maximum of 3 credits. May not be applied towards upper division elective credits for the Mathematics or Computer Science degrees. Provides upper-division mathematics majors the experience of teaching mathematics. The student is responsible for 3 hours per week per credit in the mathematics laboratory.		
<b>MATH A498</b>	<b>Individual Research</b>	<b>1-3 CR</b>
Contact Hours: 1-3 + 0 Registration Restrictions: Minimum of six credits of upper division mathematics courses with a minimum grade of B and faculty permission. Special Fees. Special Note: May be repeated up to a maximum of six credits. Independent research projects under the supervision of a faculty member. The result will be a paper or presentation prepared to publication standards.		

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## ME - Mechanical Engineering

*Offered through the School of Engineering  
Engineering Building (ENGR), Room 201, 786-1973  
[www.engr.uaa.alaska.edu](http://www.engr.uaa.alaska.edu)*

<b>ME A280</b>	<b>Solid Modeling for Engineers</b>	<b>3 CR</b>
Contact Hours: 2 + 2 Prerequisites: ENGR A105A and ENGR A105B and ENGR A105C. This course is an introduction to the use of solid modeling in engineering. The process of creating solid parts, assemblies, and fabrication-ready drawings in addition to kinematics linkages will be covered. Rapid prototyping technologies such as three dimensional printing will be used as laboratory exercises.		
<b>ME A302</b>	<b>Mechanical Design I</b>	<b>4 CR</b>
Contact Hours: 3 + 3 Prerequisites: ES A208 or ES A210. Analysis and design of displacements, velocities, accelerations, and forces in linkages, cams, and gear systems by analytical, experimental, and computer methods. Application of kinematics and dynamics of mechanisms.		



<b>ME A306</b>	<b>Dynamics of Systems</b>	<b>3 CR</b>	<b>ME A453</b>	<b>Renewable Energy Systems Engineering</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: [EE A203 or ES A309] and [ES A208 or ES A210] and MATH A302. Crosslisted with: EE A306. Modeling of mechanical, electrical, fluid and thermal elements and systems. Study of free and forced response by the Laplace transform, transfer function, and state space models. Time domain and frequency domain responses. Coupled systems, system analogy, sensing and actuation principles.			Contact Hours: 3 + 0 Prerequisites: ES A341 and ES A346. The study and design of renewable energy systems from a technical engineering standpoint. Solar, hydrokinetic, conventional hydroelectric, wind, geothermal, and biological energy systems will be examined. Additional topics include feasibility analysis and energy storage techniques.		
<b>ME A308</b>	<b>Instrumentation and Measurement</b>	<b>3 CR</b>	<b>ME A455</b>	<b>HVAC Systems Optimization</b>	<b>3 CR</b>
Contact Hours: 2 + 3 Prerequisites: ES A309. Crosslisted with: EE A308. Instrumentation theory and concepts of digital and analog devices, transducers, data sensing transmission, recording and display, instrumentation system, remote sensing, and hostile environmental conditions.			Contact Hours: 2 + 2 Prerequisites: ES A341 and ES A346. Design of thermal systems (HVAC: heating, ventilation, and air-conditioning) systems with emphasis on economic considerations and optimization. Thermodynamics, fluid mechanics, and heat transfer culminating in a semester-long project based on economic and technical considerations.		
<b>ME A313</b>	<b>Mechanical Engineering Thermodynamics</b>	<b>3 CR</b>	<b>ME A459</b>	<b>Fracture Mechanics</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ES A346. Investigation and design of power and refrigeration cycles (Rankine, Brayton, Otto, and Diesel), compressible flow (isentropic, shock waves, and flow in ducts with friction), and combustion and gas vapor mixtures.			Contact Hours: 3 + 0 Prerequisites: ES A331 with minimum grade of C. May be stacked with: ME A659. The topics of theoretical, experimental, and applied fracture of solids, structures, and machines, subcritical crack growth including fatigue, creep, and corrosion, embrittlement, safety, and life cycle design and analysis will be presented. Case studies will be used to illustrate the course topics.		
<b>ME A334</b>	<b>Elements of Material Science</b>	<b>3 CR</b>	<b>ME A471</b>	<b>Automatic Control</b>	<b>3 CR</b>
Contact Hours: 2 + 3 Prerequisites: CHEM A106 and PHYS A211. Investigation and study of crystal structure, defect structure, aspects of metal processing, heat treatment, joining, testing, failure analysis, and phase diagrams for engineering applications and design.			Contact Hours: 3 + 0 Prerequisites: [EE A306 or ME A306 or EE A353] and [ES A208 or ES A210] and MATH A302. Crosslisted with: EE A471. Feedback control of linear mechanical and electrical systems by using block diagrams with transfer functions of plants, controllers, sensors and actuators. Stability analysis with transfer-function and state-space models. Transient, steady-state analysis, frequency-domain analysis, and design of control systems with Bode plots and the Nyquist criterion.		
<b>ME A403</b>	<b>Mechanical Design II</b>	<b>3 CR</b>	<b>ME A659</b>	<b>Fracture Mechanics</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ENGR A161 and ES A331 and MATH A302. Design and analysis of machines by analytical, experimental, and computer methods. Identification of requirements and conceptual design of mechanical systems, detailed design of components, strength, life, reliability, and cost analysis.			Contact Hours: 3 + 0 Prerequisites: ES A331 with minimum grade of C. May be stacked with: ME A459. Theoretical, experimental, and applied fracture of solids, structures, and machines, subcritical crack growth including fatigue, creep, and corrosion, embrittlement, safety, and life cycle design and analysis will be presented. Case studies will be used to illustrate the course topics.		
<b>ME A408</b>	<b>Mechanical Vibrations</b>	<b>3 CR</b>	<b>ME A664</b>	<b>Corrosion Processes and Engineering</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ES A331 and ME A306. Modeling of vibratory mechanical systems with single and multiple degrees of freedom. Study of free and forced vibrations with or without damping by lumped-parameter methods and finite element analysis. Vibrations of rotor systems and vibration monitoring.			Contact Hours: 3 + 0 Prerequisites: ES A346. Registration Restrictions: Prerequisite and graduate standing, or faculty permission. The study of different corrosion processes and mechanisms. Topics include the concepts, materials, and mechanisms of corrosion with application to engineering design for corrosion prevention.		
<b>ME A414</b>	<b>Thermal Systems Design</b>	<b>3 CR</b>	<b>ME A685</b>	<b>Arctic Heat and Mass Transfer</b>	<b>3 CR</b>
Contact Hours: 2 + 2 Prerequisites: ES A341 and ES A346. Introduction to the design of power and space conditioning systems, energy conversion, heating, ventilating, air conditioning, refrigeration, and steady-state simulation of thermal systems including laboratory exercises and team designs of fluid-thermal systems.			Contact Hours: 3 + 0 Prerequisites: ES A346. Registration Restrictions: Graduate standing, with a degree in engineering or physical science, or upper class standing in an accredited undergraduate program in these categories. Special Fees. Application of the principles of heat and mass transfer with special emphasis on application to problems encountered in the Arctic such as ice and frost formation, permafrost, condensation, and heat loss in structures.		
<b>ME A438</b>	<b>Design of Mechanical Engineering Systems</b>	<b>3 CR</b>	<b>MECH - Mechanical Technology</b>		
Contact Hours: 3 + 0 Registration Restrictions: Student must be in senior year of BSE degree program or obtain faculty permission. Completion of GER Tier 1 (Basic College-level Skills) courses. Course Attributes: UAA GER Integrative Capstone. Capstone course in which mechanical engineering students design a mechanical engineering component or system starting with the initial design specification to the implementation and testing. Students apply knowledge and skills learned in their undergraduate curriculum.			<i>Offered through Kenai Peninsula College</i> <b>156 College Road, Soldotna, Alaska, 99669, (907) 262-0330</b> <a href="http://www.kpc.alaska.edu">www.kpc.alaska.edu</a>		
<b>ME A441</b>	<b>Heat and Mass Transfer</b>	<b>3 CR</b>	<b>MECH A101</b>	<b>Introduction to Machine Shop</b>	<b>4 CR</b>
Contact Hours: 2 + 2 Prerequisites: ES A302 and ES A341 and ES A346. Application of heat and mass transfer concepts to engineering problems including steady state and transient conduction, numerical analysis of heat transfer problems, laminar and turbulent free and forced convection, boiling, evaporation and condensation, and black body and real surface radiation.			Contact Hours: 2 + 4 Offered only at Kenai Peninsula College. Covers fundamentals of safe machine shop practice including the operation of the lathe, vertical mill, band saw, drill press, grinders, cut-off saw, and radial drill. Precision measurement, single-point threading, and off-hand drill sharpening are taught with emphasis on repair work.		
<b>ME A450</b>	<b>Manufacturing Design</b>	<b>3 CR</b>			
Contact Hours: 2 + 2 Prerequisites: ENGR A105A and ENGR A105B and ENGR A105C and ENGR A151 and ENGR A161 and ME A280 and ME A302. Advanced course that focuses over 3-D applied engineering applications and design. Part design for machining, molding, casting, and sheet metal operations. Methods for applied design for manufacturing and assembly are introduced. Pro/Engineer 3-D part, composite, sheet metal and assembly modules are used to practice variety of engineering design applications.					

## Course Descriptions

### MECH A102 Intermediate Machine Shop 4 CR

Contact Hours: 2 + 4

Prerequisites: MECH A101.

Offered only at Kenai Peninsula College.

Continues development of machine shop skills including lathe and mill work, indexing, surface finishes, bench work, angle measurements, tapers, and gears with an emphasis on shop safety.

### MECH A115 Gasoline Engine Rebuilding 3 CR

Contact Hours: 2 + 2

Offered only at Kenai Peninsula College.

Discusses in detail the operating principles of aspirated, non-computerized automotive engines. Includes hands-on practice in rebuilding procedures including valve grinding, bearing fitting, and cylinder boring.

### MECH A201 Advanced Machine Shop 4 CR

Contact Hours: 2 + 4

Prerequisites: MECH A101.

Registration Restrictions: The student should have fundamental skills with the lathe, mill, drill press, saws, and hand tools.

Offered only at Kenai Peninsula College.

Advanced projects will be completed by students to include surface grinding, heat treatment of metals, hardness testing, shaft straightenings, and machining couplings. Other topics will be lapping, magna-flux, boring operations, effects of welding on machining, keyed assemblies, collets and torque.

### MECH A220 Computer Numerical Control Mill 4 CR

Contact Hours: 2 + 4

Prerequisites: MECH A201 or MECH A202.

Registration Restrictions: If prerequisite is not met, five years repair shop experience or instructor permission.

Programming, operating, and producing mill parts on the computer numerical control mill (3-axis). Includes the history of computer numerical control mill, programming conventions, standards, format, cutting tools, tool changing, tool offsets, feedback systems, adaptive control, computer to machine, and mill practice.

## MEDT - Medical Laboratory Technology

*Offered through the Community & Technical College*

*Allied Health Sciences Building (AHS), Room 169, 786-4930*

*[www.uaa.alaska.edu/etc/alliedhealth/medlab](http://www.uaa.alaska.edu/etc/alliedhealth/medlab)*

This department is undergoing curriculum revision. Contact department for specific details.

### MEDT A101 Phlebotomy Procedures 3 CR

Contact Hours: 2 + 3

Registration Restrictions: PRPE A086 with a minimum grade of C or appropriate placement scores and department approval.

Special Fees.

Introduces concepts, procedures and equipment used in phlebotomy. Topics include: infection control, laboratory safety, specimen requisitioning, blood collection and handling techniques, quality assurance, communications and professionalism. Prepares students for phlebotomy practicum.

### MEDT A105 Microbiology for Clinical Assistants 3 CR

Contact Hours: 2 + 2

Prerequisites: MEDT A110 with minimum grade of C.

Registration Restrictions: Departmental approval.

Special Fees.

Develops skills in the selection, inoculation and incubation of appropriate media for culturing clinical microbiology specimens.

### MEDT A106 Waived Testing 4 CR

Contact Hours: 3 + 3

Prerequisites: MEDT A110 with minimum grade of C.

Registration Restrictions: Departmental approval.

Special Fees.

Introduces quality control, instrumentation and methodologies for waived testing in hematology, chemistry, urinalysis and microbiology. Prepares students for clinical assistant practicum.

### MEDT A110 Specimen Processing 3 CR

Contact Hours: 3 + 0

Prerequisites: MEDT A101 with minimum grade of C.

Registration Restrictions: Departmental approval. Prerequisite may be waived with documented experience in phlebotomy as assessed by faculty.

Special Fees.

Introduces common procedures used to safely and accurately collect, separate and transport specimens prior to testing. Clerical and technical responsibilities of the clinical assistant are introduced, including accessioning, determining specimen acceptability and problem solving. Lab information system processes, quality assurance and compliance within the laboratory will be included.

### MEDT A132 Introduction to Laboratory Medicine 3 CR

Contact Hours: 2 + 2

Prerequisites: BIOL A111 with minimum grade of C and [CHEM A103 with minimum grade of C and CHEM A103L with minimum grade of C] or [CHEM A105 with minimum grade of C and CHEM A105L with minimum grade of C] and [CIS A105 with minimum grade of C or CIS A110 with minimum grade of C].

Registration Restrictions: Departmental approval.

May be stacked with: MEDT A133.

Special Fees.

Introduces the basic terms, concepts, procedures, and equipment used in a clinical laboratory. Topics include: professional ethics, regulatory agencies, laboratory safety, phlebotomy, specimen processing, measurements and calculations, laboratory information systems and quality assurance.

### MEDT A133 Basic Techniques in Laboratory Medicine 1 CR

Contact Hours: 1 + 0

Prerequisites: MEDT A101 with minimum grade of C and [CHEM A103 with minimum grade of C or CHEM A103L with minimum grade of C] and [CHEM A105 with minimum grade of C or CHEM A105L with minimum grade of C] and BIOL A111 with minimum grade of C and [CIS A105 with minimum grade of C or CIS A110 with minimum grade of C].

Registration Restrictions: Departmental approval. MEDT A101 Prerequisite may be waived with documented experience in phlebotomy as assessed by faculty.

May be stacked with: MEDT A132.

Introduces the basic terms, concepts, procedures, and equipment used in a clinical laboratory. Topics include: laboratory measurements and calculations, laboratory information systems and quality assurance.

### MEDT A195A Phlebotomy Practicum 3 CR

Contact Hours: 0 + 9

Prerequisites: MEDT A101 with minimum grade of C and (MEDT A110 with minimum grade of C or concurrent enrollment).

Registration Restrictions: Departmental approval.

Grade Mode: Pass/No Pass.

Special Fees.

Applies principles of safety, phlebotomy and specimen processing techniques to patient testing in a clinical laboratory. Prepares student for entry-level employment as a phlebotomist.

### MEDT A195B Clinical Assistant Practicum 4 CR

Contact Hours: 0 + 12

Prerequisites: MEDT A105 with minimum grade of C and MEDT A106 with minimum grade of C.

Registration Restrictions: Departmental approval.

Grade Mode: Pass/No Pass.

Special Fees.

Applies principles of safety, quality control, waived testing and culture set-up to patient testing in a clinical laboratory. Prepares student for entry-level employment as a clinical assistant.

### MEDT A202 Clinical Chemistry 6 CR

Contact Hours: 3 + 6

Prerequisites: BIOL A111 with minimum grade of C and BIOL A112 with minimum grade of C and [CHEM A103 with minimum grade of C and CHEM A103L with minimum grade of C or CHEM A105 with minimum grade of C and CHEM A105L with minimum grade of C] and [CHEM A104 with minimum grade of C or CHEM A321 with minimum grade of C] and MEDT A132 with minimum grade of C.

Registration Restrictions: Departmental approval.

Special Fees.

Develops skills in performing chemical analysis of blood and other body fluids. Discusses and practices specific testing procedures for various organ systems. Correlates laboratory results with clinical findings. Emphasizes quality assurance.

### MEDT A203 Clinical Microbiology 6 CR

Contact Hours: 3 + 6

Prerequisites: BIOL A111 with minimum grade of C and BIOL A112 with minimum grade of C and [CHEM A103 with minimum grade of C and CHEM A103L with minimum grade of C or CHEM A105 with minimum grade of C and CHEM A105L with minimum grade of C] and [CHEM A104 with minimum grade of C or CHEM A321 with minimum grade of C] and MEDT A132 with minimum grade of C.

Registration Restrictions: Departmental approval.

Emphasizes the media, isolation and culture techniques, biochemical tests and staining techniques used in the identification, susceptibility testing and rapid antigen testing of microorganisms of medical importance to humans. Includes bacteriology and an introduction to parasitology, mycology and virology.

<b>MEDT A204</b>	<b>Hematology and Coagulation</b>	<b>6 CR</b>	<b>MEDT A303</b>	<b>Advanced Clinical Microbiology</b>	<b>6 CR</b>
<p>Contact Hours: 3 + 6 Prerequisites: BIOL A111 with minimum grade of C and BIOL A112 with minimum grade of C and [CHEM A103 with minimum grade of C and CHEM A103L with minimum grade of C or CHEM A105 with minimum grade of C and CHEM A105L with minimum grade of C] and [CHEM A104 with minimum grade of C or CHEM A321 with minimum grade of C] and MEDT A132 with minimum grade of C. Registration Restrictions: Departmental approval. Emphasizes the theory and practice of manual and automated procedures in hematology and coagulation and the relationship of these procedures to the diagnosis of disease.</p>			<p>Contact Hours: 3 + 6 Prerequisites: MEDT A203 with minimum grade of C. Registration Restrictions: Departmental approval Special Fees. Examines microorganisms of medical importance to humans. Includes unusual pathogenic and anaerobic bacteriology, mycology, parasitology, and virology with emphasis on identification, susceptibility testing, and epidemiology.</p>		
<b>MEDT A206</b>	<b>Immunology and Blood Banking</b>	<b>6 CR</b>	<b>MEDT A401</b>	<b>Introduction to Research</b>	<b>2 CR</b>
<p>Contact Hours: 3 + 6 Prerequisites: BIOL A111 with minimum grade of C and BIOL A112 with minimum grade of C and [CHEM A103 with minimum grade of C and CHEM A103L with minimum grade of C or CHEM A105 with minimum grade of C and CHEM A105L with minimum grade of C] and [CHEM A104 with minimum grade of C or CHEM A321 with minimum grade of C] and MEDT A132 with minimum grade of C. Registration Restrictions: Departmental approval. Special Fees. Introduces the theory of antigen-antibody reactions as it relates to blood grouping and typing, antibody detection and compatibility testing. Discusses blood donor screening and component preparations, immunologically related diseases, transplantation, and principles of antigen-antibody based tests.</p>			<p>Contact Hours: 2 + 0 Prerequisites: CIS A110 and [STAT A252 or STAT A253]. Registration Restrictions: Departmental approval Applies research and presentation methods to current topics in medical laboratory science.</p>		
<b>MEDT A208</b>	<b>Urine and Body Fluid Analysis</b>	<b>3 CR</b>	<b>MEDT A402</b>	<b>Medical Technology Honors: Quality Assessment Project</b>	<b>3 CR</b>
<p>Contact Hours: 2 + 2 Prerequisites: BIOL A111 with minimum grade of C and BIOL A112 with minimum grade of C and [CHEM A103 with minimum grade of C and CHEM A103L with minimum grade of C or CHEM A105 with minimum grade of C and CHEM A105L with minimum grade of C] and [CHEM A104 with minimum grade of C or CHEM A321 with minimum grade of C] and MEDT A132 with minimum grade of C. Registration Restrictions: Departmental approval. Examines the physical, chemical and microscopic properties of urine and other body fluids. Correlates selected chemical and microscopic constituents of urine and other body fluids with various disease states.</p>			<p>Contact Hours: 2 + 2 Prerequisites: MEDT A302 with minimum grade of C and (MEDT A401 with minimum grade of C or concurrent enrollment). Major Restriction: Must be Medical Technology major. Registration Restrictions: Departmental approval. Grade Mode: Pass/No Pass. Applies basic research techniques and quality assessment principles to address a quality care issue.</p>		
<b>MEDT A250</b>	<b>Cultural Diversity in Health Care</b>	<b>1 CR</b>	<b>MEDT A495</b>	<b>Medical Technology Practicum</b>	<b>12 CR</b>
<p>Contact Hours: 1 + 0 Registration Restrictions: Departmental approval. Grade Mode: Pass/No Pass. Examines community, personal and family relationships, and education through the lenses of cross-cultural holistic health and healing practices. Brings the student into a direct relationship with health care consumers from various cultural backgrounds.</p>			<p>Contact Hours: 0 + 36 Prerequisites: MEDT A202 with minimum grade of C and MEDT A204 with minimum grade of C and MEDT A206 with minimum grade of C and MEDT A208 with minimum grade of C and MEDT A301 with minimum grade of C and MEDT A302 with minimum grade of C and MEDT A303 with minimum grade of C. Registration Restrictions: Departmental approval Special Fees. Integrates knowledge and applies skills acquired in medical laboratory technology (MEDT) courses to laboratory testing at a clinical facility. Supervised by UAA faculty and clinical laboratory personnel.</p>		
<b>MEDT A295</b>	<b>Clinical Practicum</b>	<b>12 CR</b>	<b>MEDT A601</b>	<b>Diagnostic Flow Cytometry</b>	<b>3 CR</b>
<p>Contact Hours: 0 + 36 Prerequisites: MEDT A202 with minimum grade of C and MEDT A203 with minimum grade of C and MEDT A204 with minimum grade of C and MEDT A206 with minimum grade of C and MEDT A208 with minimum grade of C. Registration Restrictions: Departmental approval Special Fees. Applies knowledge and skills acquired in medical laboratory technology (MEDT) courses to laboratory testing at a clinical facility. Supervised by UAA faculty and clinical laboratory personnel.</p>			<p>Contact Hours: 2 + 2 Prerequisites: MEDT A204 with minimum grade of C and MEDT A206 with minimum grade of C. Registration Restrictions: Bachelor of Science in Medical Technology and departmental approval. Special Fees. Examines technical and managerial information about flow cytometry and its applications in the clinical laboratory.</p>		
<b>MEDT A301</b>	<b>Clinical Molecular Biology</b>	<b>4 CR</b>	<b>MILS - Military Science</b>		
<p>Contact Hours: 3 + 3 Prerequisites: BIOL A112 with minimum grade of C and MATH A107 with minimum grade of C and [CHEM A104 with minimum grade of C or CHEM A321 with minimum grade of C]. Registration Restrictions: Departmental approval. Special Fees. Examines the practice of molecular biology and its applications in the clinical laboratory. Topics include human genetics; isolation, amplification, discrimination and detection techniques for nucleic acids; and the design and operation of a molecular diagnostic laboratory.</p>			<p><i>Offered through the Community &amp; Technical College Eugene Short Hall (ESH), Room 211, 786-6094 <a href="http://www.uaa.alaska.edu/ctc/programs/military">www.uaa.alaska.edu/ctc/programs/military</a></i></p>		
<b>MEDT A302</b>	<b>Clinical Laboratory Education and Management</b>	<b>4 CR</b>	<b>MILS A101</b>	<b>Leadership and Personal Development</b>	<b>3 CR</b>
<p>Contact Hours: 4 + 0 Prerequisites: (PHIL A302 or concurrent enrollment). Registration Restrictions: MLT program director and faculty approval. Completion of GER Tier 1 (basic college-level skills) courses and junior standing. Course Attributes: UAA GER Integrative Capstone. Applies educational and management principles to laboratory medicine and allied health science professions. Prepares future laboratory managers to function in a culturally diverse and technologically dynamic environment. Topics include education, process, and teaching methods. Managerial components incorporate planning, directing, and evaluating. Designed for students with an educational or working background in a health care field.</p>			<p>Contact Hours: 3 + 0 Corequisite: MILS A150. Introduces students to the personal challenges and competencies that are critical for effective leadership. Educates students on how the personal development of life skills such as time management, physical fitness, and stress management relate to leadership, Officership, and Army operations. Develops basic knowledge and comprehension of Army Leadership Dimensions while gaining a big picture understanding of the ROTC program, its purpose in the Army, and its advantages for the student.</p>		
			<b>MILS A102</b>	<b>Introduction to Tactical Leadership</b>	<b>3 CR</b>
			<p>Contact Hours: 3 + 0 Prerequisites: MILS A101. Corequisite: MILS A150. Overviews leadership fundamentals such as setting direction, problem-solving, listening, presenting briefs, providing feedback, and using effective writing skills. Explores dimensions of leadership attributes and core leader competencies in the context of practical, hands-on, and interactive exercises.</p>		

## Course Descriptions

### **MILS A150 Army ROTC Leadership and Physical Training Laboratory 1 CR**

Contact Hours: 0 + 4

Registration Restrictions: Students must be enrolled in Army ROTC academic courses unless they have completed all ROTC academic courses for program completion. Corequisites are: MILS A101 or MILS A102 or MILS A201 or MILS A202 or MILS A301 or MILS A302 or MILS A401 or MILS A402.

Grade Mode: Pass/No Pass.

Special Fees.

Allows for practical experience of theories learned in a classroom environment. Exercises principles of patrolling, land navigation and physical training in a real world environment. Evaluates proficiency in one field training exercise per semester lasting no longer than 72 hours. Tests their academic knowledge and prepares them for their future roles as United States Army Officers.

### **MILS A201 Foundations of Leadership 3 CR**

Contact Hours: 3 + 0

Prerequisites: MILS A102.

Corequisite: MILS A150.

Explores the dimensions of creative and innovative tactical leadership strategies and styles by examining team dynamics and two historical leadership theories that form the basis of the Army leadership framework. Evaluates personal motivation and team building through planning, executing and assessing team exercises.

### **MILS A202 Foundations of Tactical Leadership 3 CR**

Contact Hours: 3 + 0

Prerequisites: MILS A201.

Corequisite: MILS A150.

Examines the challenges of leading tactical teams in the complex contemporary operating environment (COE). The course highlights dimensions of terrain analysis, patrolling, and operation orders. Explores the dynamics of adaptive leadership in the context of military operations through the study of the theoretical basis of the Army Leadership Requirements Model.

### **MILS A250 History of the United States Army 3 CR**

Contact Hours: 3 + 0

Develops student awareness of the relationship between the military establishment and the society of the United States. Examines the evolution of war and the progression of military professionalism to provide an awareness and purpose for military operations from colonial America to present day. Discusses the importance of understanding United States Army history as a part of the military profession. Analyzes the evolution of both tactics and force structure of the United States Army during these periods.

### **MILS A301 Adaptive Team Leadership 3 CR**

Contact Hours: 3 + 0

Prerequisites: MILS A202.

Registration Restrictions: Restricted to contracted ROTC cadets only.

Corequisite: MILS A150.

Challenges students to study, practice, and evaluate adaptive leadership skills as they are presented with challenging scenarios related to squad tactical operations. Provides systematic and specific feedback on students' leadership attributes and actions. Develops leadership and critical thinking abilities.

### **MILS A302 Applied Team Leadership 3 CR**

Contact Hours: 3 + 0

Prerequisites: MILS A301.

Registration Restrictions: Restricted to contracted ROTC cadets only.

Corequisite: MILS A150.

Uses increasingly intense situations for applied team leadership challenges to build student awareness and skills in leading tactical operations at the small unit level. Students review aspects of full spectrum operations. Develops proficiency in the operations orders process by conducting military briefings.

### **MILS A401 Adaptive Leadership 3 CR**

Contact Hours: 3 + 0

Prerequisites: MILS A302.

Registration Restrictions: Restricted to contracted ROTC cadets only.

Corequisite: MILS A150.

Transitions the focus of student learning from being trained, mentored and evaluated as an MS III Cadet to learning how to train, mentor and evaluate underclass Cadets. Explains the duties and responsibilities of an Army staff officer. Applies the Military Decision Making Process, Army writing style and the Army's principles of training and training management cycle during weekly training meetings to plan, execute and assess battalion training events. Demonstrates Army values and ethics and how to apply them to everyday life as well as in the Contemporary Operating Environment. Examines the officer's role in the Uniform Code of Military Justice, counseling subordinates, and methods on how to best manage their career as an Army Officer.

### **MILS A402 Leadership in a Complex World 3 CR**

Contact Hours: 3 + 0

Prerequisites: MILS A401.

Registration Restrictions: Restricted to contracted ROTC cadets only.

Corequisite: MILS A150.

Explores the dynamics of leading in the complex situations of current military operations in the contemporary operating environment (COE). Examines differences in customs and courtesies, principles of war, and rules of engagement in the face of international terrorism. Explores aspects of interacting with non-government organizations, civilians on the battlefield, and host nation support.

## MT - Marine Technology

*Offered through Kenai Peninsula College*

*156 College Road, Soldotna, Alaska 99669, (907) 262-0330*

*www.kpc.alaska.edu*

### **MT A101 Boating Safety and Essential Navigation 1 CR**

Contact Hours: 1 + 0

Grade Mode: Pass/No Pass.

Special Note: Swimming attire or change of clothing is needed. Encouraged to bring Personal Floatation Device and immersion suit.

Entry-level course that fosters safe operation of boats in compliance with boating laws. Addresses Alaska-specific issues, topics, and the essentials of coastal navigation. Includes pool time relating to cold water safety and survival techniques. Students will receive a certificate from the National Association of Boating Law Administrators (NASBLA).

### **MT A124 Small Wooden Boatbuilding 3 CR**

Contact Hours: 1 + 4

Grade Mode: Pass/No Pass.

Covers the process of traditional boatbuilding. Includes the design process, boat types, their strengths and weaknesses and materials and technologies used in boatbuilding. One small boat may be built as a class project.

### **MT A231 Vessel Commercial License Preparation 3 CR**

Contact Hours: 3 + 0

Grade Mode: Pass/No Pass.

Offered only at Kenai Peninsula College.

Preparation for passing the USCG license exam for motor boat operator of uninspected passenger vessels, and master, inland and near coastal.

## MUS - Music

*Offered through the College of Arts and Sciences*

*Fine Arts Building (ARTS), Room 302, 786-1595*

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

### **MUS A102 Concert Chorus I 2 CR**

Contact Hours: 2 + 0

Registration Restrictions: Admission by audition only.

Special Fees.

Special Note: May be repeated once for credit.

Performance-oriented large chorus. Established community organization for singers who read music, demonstrate secure rhythm and pitch, and produce acceptable vocal sound.

### **MUS A103 Matanuska-Susitna College Community Band 2 CR**

Contact Hours: 2 + 0

Registration Restrictions: Play a concert band instrument or read music well enough to quickly learn one.

Grade Mode: Pass/No Pass.

Offered only at Matanuska-Susitna College.

Special Note: Age group ranges from 10-80. Experience ranges from basic to professional.

Structured, established concert band.

### **MUS A111 Fundamentals of Music 3 CR**

Contact Hours: 3 + 0

Rudimentary work in the elements of music and an introduction to notation, rhythm, scales, keys, intervals, and musical terminology. Designed for students with little or no background in music reading, or as a refresher course for those who have studied music.

### **MUS A112 Practical Theory 3 CR**

Contact Hours: 3 + 0

Prerequisites: MUS A111.

Registration Restrictions: Ability to read music in treble and bass clef in all keys.

Elementary study of harmony and melody; formation of scales, modes, intervals, chords, inversions, and simple harmonic progressions. Writing and harmonizing of melodic lines.

<b>MUS A115</b>	<b>Jazz Theory I</b>	<b>3 CR</b>	<b>MUS A142</b>	<b>Guitar Chord Theory</b>	<b>2 CR</b>
Contact Hours: 3 + 0			Contact Hours: 2 + 0		
Registration Restrictions: Ability to read music, theory background, basic ability on an instrument.			Registration Restrictions: Ability to read music on the treble staff. May be taken concurrently with MUS A141.		
Detailed study of jazz using modulation, sequence, transposition, arranging, and voicing through analysis and dictation. Course is adapted to individual students on keyboard or other instruments.			Special Note: Instrument required.		
			One-semester theory course for guitar students. Includes analysis and construction of scales, intervals, chords, and key centers. Develops transcription skills, assignment of chords to melodies, harmonization, and eartraining. Hands-on exercises focus on practical application to the instrument.		
<b>MUS A116</b>	<b>Jazz Theory II</b>	<b>3 CR</b>	<b>MUS A150</b>	<b>Piano Class I</b>	<b>1 CR</b>
Contact Hours: 3 + 0			Contact Hours: 1 + 0		
Prerequisites: MUS A115.			Special Fees.		
Application of skills obtained in MUS 115. Modulation, sequence, transposition, arranging, and voicing are studied, with compositions performed by lab groups. Copyright preparation is discussed.			Fundamentals of piano techniques. Introduces notereading in five-finger positions in the keys of C and G, using folk and classical arrangements in simple meter. Classes conducted in piano lab.		
<b>MUS A121</b>	<b>Music Appreciation</b>	<b>3 CR</b>	<b>MUS A152</b>	<b>Voice Class I</b>	<b>1 CR</b>
Contact Hours: 3 + 0			Contact Hours: 1 + 0		
Course Attributes: UAA GER Fine Arts Requirement.			Registration Restrictions: Ability to match pitches.		
Special Note: Music majors may not use this course towards their GER-Fine Arts requirement.			Special Fees.		
Basic elements of the physics of musical sound and music notation, followed by a survey of the history and development of Western music from the early Middle Ages to the present.			Special Note: Ability to read music not a prerequisite.		
			Study and practice of basic fundamentals of singing and song interpretation, stressing attitude and correct practice habits. Introduces and expands general knowledge of singing: mechanism, technique, repertoire, and performance practices.		
<b>MUS A124</b>	<b>History of Jazz</b>	<b>3 CR</b>	<b>MUS A154A</b>	<b>Functional Piano I</b>	<b>1 CR</b>
Contact Hours: 3 + 0			Contact Hours: 0 + 2		
Course Attributes: UAA GER Fine Arts Requirement.			Prerequisites: (MUS A111 or concurrent enrollment).		
History and development of jazz from its early heritage to the present, emphasizing representative styles and individual or group contributors. Recordings, guest artists, and possible field trips enhance regular classroom activities.			May be stacked with: MUS A154B, MUS A154C, MUS A154D.		
			Special Note: May be repeated for a maximum of 4 credits.		
<b>MUS A131</b>	<b>Music Theory I</b>	<b>3 CR</b>			
Contact Hours: 3 + 0			Intended for music majors with little or no piano background. Student will practice from a beginning adult piano book to gain skills necessary to pass the harmonization/transposition or improvised melody component of the piano proficiency exam.		
Corequisite: MUS A133.					
Organization of musical materials with emphasis on diatonic functional harmony. Introduction to part writing and keyboard skills.			<b>MUS A154B</b>	<b>Functional Piano II</b>	<b>1 CR</b>
			Contact Hours: 0 + 2		
<b>MUS A132</b>	<b>Music Theory II</b>	<b>3 CR</b>	Prerequisites: MUS A154A.		
Contact Hours: 3 + 0			Grade Mode: Pass/No Pass.		
Prerequisites: MUS A131.			May be stacked with: MUS A154A, MUS A154C, MUS A154D.		
Corequisite: MUS A134.			Intended for music majors who demonstrate enough piano ability to potentially pass a minimum of two components of the piano proficiency exam. Suggested components include: 1) harmonization and transposition of a simple melody; 2) improvised melody; 3) realization of a simple figured bass line. Student must pass a minimum of two components to pass this course.		
Continuation of MUS A131, emphasizing part writing and melody harmonization. Introduction of non-harmonic tones and modulation and development of practical keyboard skills.					
<b>MUS A133</b>	<b>Sightsinging and Ear Training I</b>	<b>2 CR</b>	<b>MUS A154C</b>	<b>Functional Piano III</b>	<b>1 CR</b>
Contact Hours: 2 + 0			Contact Hours: 0 + 2		
Corequisite: MUS A131.			Prerequisites: MUS A154B.		
The development of skills in hearing and reading music. The course features the study of intervals and chords and common metrical patterns.			Grade Mode: Pass/No Pass.		
			May be stacked with: MUS A154A, MUS A154B, MUS A154D.		
<b>MUS A134</b>	<b>Sightsinging and Ear Training II</b>	<b>2 CR</b>			
Contact Hours: 2 + 0			Intended for music majors who demonstrate enough piano ability to potentially pass a minimum of four components of the piano proficiency exam. Suggested components include: 1) harmonization and transposition of a simple melody; 2) improvised melody; 3) realization of a simple figured bass line; 4) a memorized performance of a Bach Two-Part Invention or a Clementi Sonatina; 5) an arrangement of a simple tune read from a lead sheet. Student may have previously passed some of these requirements in MUS A154B.		
Prerequisites: MUS A133.					
Corequisite: MUS A132.			<b>MUS A154D</b>	<b>Functional Piano IV</b>	<b>1 CR</b>
Continuation of MUS A133, emphasizing rhythmic, melodic and harmonic dictation.			Contact Hours: 0 + 2		
			Prerequisites: MUS A154C.		
<b>MUS A140</b>	<b>Fingerstyle Guitar I</b>	<b>2 CR</b>	Grade Mode: Pass/No Pass.		
Contact Hours: 2 + 0			May be stacked with: MUS A154A, MUS A154B, MUS A154C.		
Special Note: Students must furnish their own 6-string acoustic or classical guitar.			Intended for music majors who demonstrate enough piano ability to potentially pass all six components of the piano proficiency exam. Components include: 1) a memorized performance of a Bach Two-Part Invention or a Clementi Sonatina; 2) the harmonization and transposition of a simple melody; 3) the sight-reading of a Bach Chorale; 4) the ability to improvise a simple melody; 5) the realization of a simple figured bass line; and 6) an arrangement of a simple tune read from a lead sheet. Student must complete all required components (necessary to the degree) to pass this course.		
Beginning course for those who do not read music or who have limited experience with the guitar. Reading and performing melodies, solos, and accompaniment on the guitar from standard treble staff notation. Use of traditional and contemporary musical examples to teach at least 13 basic chords in the first position, alternating bass technique, and six fingerstyle patterns.					
			<b>MUS A155</b>	<b>Functional Piano II</b>	<b>1 CR</b>
<b>MUS A141</b>	<b>Fingerstyle Guitar II</b>	<b>2 CR</b>	Contact Hours: 1 + 0		
Contact Hours: 2 + 0			Prerequisites: MUS A154.		
Prerequisites: MUS A140.			Continuation of MUS A154, using simple literature, sight-reading exercises, major scales and cadences, and simple tunes with primary triads.		
Registration Restrictions: Audition required for students who have not completed MUS A140, demonstrating ability to noteread melodies on the guitar in C Major and A minor and acquaintance with fingerstyle technique and the concept of alternating bass.					
Continuation of MUS A140 and development of music reading skills using standard treble staff notation. Introduces barre chords, bass runs, ornamentation, and Major and minor scale studies in the first and second positions. Solo examples from traditional, classical, and contemporary literature and fingerstyle patterns in simple and compound time.					

## Course Descriptions

<p><b>MUS A161</b>                      <b>Private Lessons</b>                      <b>1-2 CR</b>            Contact Hours: 1-2 + 0            Registration Restrictions: Departmental approval. Enrollment concurrent with appropriate master class.            Special Fees.            Special Note: Bachelor of Music majors enroll for 2 credits.            Private music instruction in brass, guitar, harpsichord, organ, percussion, piano, strings, voice, and woodwinds.</p>	<p><b>MUS A233</b>                      <b>Sightsinging and Ear Training III</b>                      <b>2 CR</b>            Contact Hours: 2 + 0            Prerequisites: MUS A134.            Corequisite: MUS A231.            Develops advanced skills in hearing and reading music. Features modulation, chromaticism and complex rhythmic patterns.</p>
<p><b>MUS A162</b>                      <b>Private Lessons</b>                      <b>1-2 CR</b>            Contact Hours: 1-2 + 0            Prerequisites: MUS A161.            Registration Restrictions: Departmental approval. Enrollment concurrent with appropriate master class.            Special Fees.            Special Note: Bachelor of Music majors enroll for 2 credits.            Continuation of MUS A161.</p>	<p><b>MUS A234</b>                      <b>Sightsinging and Ear Training IV</b>                      <b>2 CR</b>            Contact Hours: 2 + 0            Prerequisites: MUS A233.            Corequisite: MUS A232.            Continuation of MUS A233.</p>
<p><b>MUS A163</b>                      <b>Private Lessons (Non-Major)</b>                      <b>1-2 CR</b>            Contact Hours: 1-2 + 3-6            Special Fees.            Private lessons in brass, guitar, harpsichord, organ, percussion, piano, strings, voice and woodwinds for non-majors.</p>	<p><b>MUS A240</b>                      <b>Fingerstyle Guitar III</b>                      <b>2 CR</b>            Contact Hours: 2 + 0            Prerequisites: MUS A141 and MUS A142.            Registration Restrictions: Faculty permission.            Continuation of MUS A141. Intermediate skills including ornamentation, notereading in the second position, and moving bass lines. Development of solo technique with repertoire selected from classical and contemporary composers. Fingerstyle syncopated rhythms and blues and flamenco studies.</p>
<p><b>MUS A164</b>                      <b>Private Lessons (Non-Major)</b>                      <b>1-2 CR</b>            Contact Hours: 1-2 + 3-6            Special Fees.            Continuation of MUS A163.</p>	<p><b>MUS A241</b>                      <b>Fingerstyle Guitar IV</b>                      <b>2 CR</b>            Contact Hours: 2 + 0            Prerequisites: MUS A142 and MUS A240.            Registration Restrictions: Faculty permission required.            Continuation of MUS A240. Review of second position and introduction of notereading in the 4th and 5th positions. Intermediate solo repertoire including examples from the Latin American composers. Fingerstyle technique using extended chords in barre positions and pattern modulation.</p>
<p><b>MUS A202</b>                      <b>Concert Chorus II</b>                      <b>2 CR</b>            Contact Hours: 2 + 0            Registration Restrictions: Admission by audition only.            Special Fees.            Special Note: May be repeated once for credit.            Performance-oriented large chorus. Established community organization for singers who read music, demonstrate secure rhythm and pitch, and produce acceptable vocal sound.</p>	<p><b>MUS A242</b>                      <b>Solo Fingerstyle Guitar</b>                      <b>2 CR</b>            Contact Hours: 2 + 0            Prerequisites: MUS A142 and MUS A240.            Registration Restrictions: Faculty permission required.            Special Note: May be repeated twice for credit.            Performance-oriented course for the intermediate guitarist. Focuses upon rehearsal and memorization techniques using literature appropriate to each student's level of instrumental mastery. Continues notereading studies in all positions and exercises in small ensemble performance.</p>
<p><b>MUS A215</b>                      <b>Music of Alaska Natives and Indigenous Peoples of Northern Regions</b>                      <b>3 CR</b>            Contact Hours: 3 + 0            Prerequisites: ENGL A111.            Crosslisted with: AKNS A215.            Course Attributes: UAA GER Fine Arts Requirement.            Special Note: AKNS A201 or MUS A111 recommended.            Explores the music of Alaska Natives and Indigenous Peoples of Northern regions by group, including influences from Euro-American music.</p>	<p><b>MUS A261</b>                      <b>Private Lessons</b>                      <b>1-2 CR</b>            Contact Hours: 1-2 + 0            Prerequisites: MUS A162.            Registration Restrictions: Departmental approval. Enrollment concurrent with appropriate master class.            Special Fees.            Special Note: Bachelor of Music majors enroll for 2 credits.            Continuation of MUS A162.</p>
<p><b>MUS A221</b>                      <b>History of Music I</b>                      <b>3 CR</b>            Contact Hours: 3 + 0            Prerequisites: MUS A121 or MUS A131.            Course Attributes: UAA GER Fine Arts Requirement UAA GER Humanities Requirement.            Special Note: BA music majors may not use this course towards their GER-Fine Arts or CAS Humanities sequence requirements.            Music before 1750. Explores stylistic developments and structure from Antiquity through Medieval, Renaissance, and Baroque eras within their historical context.</p>	<p><b>MUS A262</b>                      <b>Private Lessons</b>                      <b>1-2 CR</b>            Contact Hours: 1-2 + 0            Prerequisites: MUS A261.            Registration Restrictions: Departmental approval. Enrollment concurrent with appropriate master class.            Special Fees.            Special Note: Bachelor of Music majors enroll for 2 credits.            Continuation of MUS A261.</p>
<p><b>MUS A222</b>                      <b>History of Music II</b>                      <b>3 CR</b>            Contact Hours: 3 + 0            Prerequisites: MUS A121 or MUS A131.            Course Attributes: UAA GER Fine Arts Requirement UAA GER Humanities Requirement.            Special Note: BA music majors may not use this course towards their GER-Fine Arts or CAS Humanities sequence requirements.            Western Art music since 1750. Stylistic developments and structure through Classical, Romantic, and 20th Century eras within their historical context. Also covers World Music topics, with attention to the Music of the North (Alaska Native).</p>	<p><b>MUS A263</b>                      <b>Private Lessons (Non-Major)</b>                      <b>1-2 CR</b>            Contact Hours: 1-2 + 3-6            Special Fees.            Continuation of MUS A164.</p>
<p><b>MUS A231</b>                      <b>Music Theory III</b>                      <b>3 CR</b>            Contact Hours: 3 + 0            Prerequisites: MUS A132.            Corequisite: MUS A233.            Functional harmony featuring part writing and melody harmonization and introducing chromatic harmony. Covers modulation, secondary dominant functions, and other altered chords along with analysis of binary and ternary forms.</p>	<p><b>MUS A264</b>                      <b>Private Lessons (Non-Major)</b>                      <b>1-2 CR</b>            Contact Hours: 1-2 + 3-6            Special Fees.            Continuation of MUS A263.</p>
<p><b>MUS A232</b>                      <b>Music Theory IV</b>                      <b>3 CR</b>            Contact Hours: 3 + 0            Prerequisites: MUS A231.            Corequisite: MUS A234.            Continuation of MUS A231. Features borrowed chords and other types of chromatic harmonies. Surveys 20th Century harmony.</p>	<p><b>MUS A280</b>                      <b>Basic Conducting</b>                      <b>2 CR</b>            Contact Hours: 2 + 0            Prerequisites: MUS A131.            Introduces principles of conducting. Explores time-beating, use of left hand, score reading, and transposition as it relates to conducting.</p>
	<p><b>MUS A301A</b>                      <b>University Singers</b>                      <b>1 CR</b>            Contact Hours: 2 + 0            Registration Restrictions: By audition.            Grade Mode: Pass/No Pass.            May be stacked with: MUS A301B.            Special Fees.            Special Note: May be repeated for credit. Elective credit for the non music major.            Rehearsal and performance of literature for large choral ensemble, including works from the Renaissance to the present day.</p>

<b>MUS A301B</b>	<b>University Singers</b>	<b>2 CR</b>	<b>MUS A361</b>	<b>Private Lessons</b>	<b>2 CR</b>
Contact Hours: 2 + 0 Registration Restrictions: By audition. May be stacked with: MUS A301A. Special Fees. Special Note: May be repeated for credit. Ensemble credit for vocal majors. Rehearsal and performance of literature for large choral ensemble, including works from the Renaissance to the present day.			Contact Hours: 2 + 0 Prerequisites: MUS A262. Registration Restrictions: Departmental approval. Enrollment concurrent with appropriate master class. Special Fees. Continuation of MUS A262.		
<b>MUS A302A</b>	<b>Chamber Music and Accompanying</b>	<b>1 CR</b>	<b>MUS A362</b>	<b>Private Lessons</b>	<b>2 CR</b>
Contact Hours: 1 + 3 Registration Restrictions: By audition. Grade Mode: Pass/No Pass. May be stacked with: MUS A302B. Special Note: May be repeated for credit. Advanced vocalists and instrumentalists are also encouraged to enroll. Ensemble course for the non music major pianist. Covers the art of accompanying singers and instrumentalists and relevant skills such as sight-reading and score-reading.			Contact Hours: 2 + 0 Prerequisites: MUS A361. Registration Restrictions: Departmental approval. Enrollment concurrent with appropriate master class. Special Fees. Continuation of MUS A361.		
<b>MUS A302B</b>	<b>Chamber Music and Accompanying</b>	<b>2 CR</b>	<b>MUS A363</b>	<b>Private Lessons (Non-Major)</b>	<b>1-2 CR</b>
Contact Hours: 1 + 3 Registration Restrictions: By audition. May be stacked with: MUS A302A. Special Note: May be repeated for credit. Advanced vocalists and instrumentalists are also encouraged to enroll. Ensemble course for pianists. Covers the art of accompanying singers and instrumentalists and relevant skills such as sight-reading and score-reading.			Contact Hours: 1-2 + 3-6 Special Fees. Continuation of MUS A264.		
<b>MUS A303A</b>	<b>University Wind Ensemble</b>	<b>1 CR</b>	<b>MUS A364</b>	<b>Private Lessons (Non-Major)</b>	<b>1-2 CR</b>
Contact Hours: 2 + 0 Registration Restrictions: By audition. Grade Mode: Pass/No Pass. May be stacked with: MUS A303B. Special Note: May be repeated for credit In-depth rehearsal and performance of original band music and transcriptions from Renaissance up to and including 20th century literature. Ensemble for the non music major.			Contact Hours: 1-2 + 3-6 Special Fees. Continuation of MUS A363.		
<b>MUS A303B</b>	<b>University Wind Ensemble</b>	<b>2 CR</b>	<b>MUS A365</b>	<b>Chamber Ensemble</b>	<b>1 CR</b>
Contact Hours: 2 + 0 Registration Restrictions: By audition. May be stacked with: MUS A303A. Special Note: May be repeated for credit. In-depth rehearsal and performance of original band music and transcriptions from Renaissance up to and including 20th century literature. Ensemble course for wind and percussion majors.			Contact Hours: 1 + 0 Prerequisites: MUS A162. Registration Restrictions: Faculty approval. Special Note: May be repeated for credit 3 times. Instrumental/Vocal ensemble of three or more. Students select a faculty coach and prepare and deliver a chamber work in a Department event or other approved public venue.		
<b>MUS A307A</b>	<b>University Sinfonia</b>	<b>1 CR</b>	<b>MUS A371</b>	<b>Brass Methods and Techniques</b>	<b>2 CR</b>
Contact Hours: 2 + 0 Registration Restrictions: By audition. Grade Mode: Pass/No Pass. May be stacked with: MUS A307B. Special Note: May be repeated for credit. Intensive study of chamber orchestra literature leading to public performance. String music for intermediate and advanced performers. Includes wind and percussion players for specific works. Ensemble for non music majors.			Contact Hours: 2 + 0 Prerequisites: MUS A132. Special Fees. Special Note: Student must be able to read music fluently while holding/performing on the brass instruments. Instruction in the brass instruments. The course is part of the teacher training program.		
<b>MUS A307B</b>	<b>University Sinfonia</b>	<b>2 CR</b>	<b>MUS A372</b>	<b>Woodwind Methods and Techniques</b>	<b>2 CR</b>
Contact Hours: 2 + 0 Registration Restrictions: By audition. May be stacked with: MUS A307A. Special Note: May be repeated for credit. Intensive study of chamber orchestra literature leading to public performance. String music for intermediate and advanced performers. Includes wind and percussion players for specific works. Ensemble for string majors.			Contact Hours: 2 + 0 Prerequisites: MUS A132. Special Fees. Special Note: Student must be able to read music fluently while holding/performing on the woodwind instruments. Instruction in the woodwind instruments. The course is part of the teacher training program.		
<b>MUS A313</b>	<b>Opera Workshop</b>	<b>2 CR</b>	<b>MUS A373</b>	<b>String Methods and Techniques</b>	<b>2 CR</b>
Contact Hours: 2 + 0 Registration Restrictions: By audition Special Fees. Special Note: May be repeated for credit. Only 4 credits of MUS A313 may be applied to the Bachelor of Music degrees. Rehearsal and performance of selected operas, operettas and musical theatre. Meets the small ensemble requirement for music majors.			Contact Hours: 2 + 0 Prerequisites: MUS A132. Special Fees. Special Note: Student must be able to read music fluently while holding/performing on the string instruments. Instruction in the stringed instruments of the orchestra and guitar. The course is part of the teacher training program.		
<b>MUS A331</b>	<b>Form and Analysis</b>	<b>3 CR</b>	<b>MUS A374</b>	<b>Voice Methods and Techniques</b>	<b>2 CR</b>
Contact Hours: 3 + 0 Prerequisites: MUS A232. Registration Restrictions: Completion of GER Tier I (basic college-level skills) courses and junior standing. Course Attributes: UAA GER Integrative Capstone. Structural principles of music of the 18th and 19th centuries.			Contact Hours: 2 + 0 Prerequisites: MUS A132. Special Note: Student must be able to sing and read music fluently. Instruction in musical use of the voice. The course is part of the teacher training program.		
			<b>MUS A375</b>	<b>Percussion Methods and Techniques</b>	<b>2 CR</b>
			Contact Hours: 2 + 0 Registration Restrictions: Student must be able to read music fluently while holding/performing on the percussion instruments. Special Fees. Instruction in the percussion instruments. The course is part of the teacher training program.		
			<b>MUS A376</b>	<b>Elementary Music Methods and Techniques</b>	<b>2 CR</b>
			Contact Hours: 2 + 0 Prerequisites: MUS A132. Special Fees. Special Note: Students must be able to sing and read music fluently and be able to hold and perform various instruments. Introduction in elementary music instruments, philosophies, and techniques. The course is part of the Bachelor of Music with Emphasis in Music Education program.		

## Course Descriptions

<p><b>MUS A381</b>                    <b>Choral Conducting</b>                    <b>2 CR</b>            Contact Hours: 2 + 0            Prerequisites: MUS A232 and MUS A280.            Principles of conducting and interpreting choral music.</p>	<p><b>MUS A421</b>                    <b>Music in the Baroque Period</b>                    <b>3 CR</b>            Contact Hours: 3 + 0            Prerequisites: MUS A222 and MUS A232.            Special Note: BA music majors must first pass MUS 154 and the functional piano exam by jury before enrolling in this course.            Musical style from 1600 to 1750. In-depth study of keyboard music, opera, oratorio and cantata, and instrumental music. Requires intensive listening and reading of music.</p>
<p><b>MUS A382</b>                    <b>Instrumental Conducting</b>                    <b>2 CR</b>            Contact Hours: 2 + 0            Prerequisites: MUS A232 and MUS A280.            Principles of conducting and interpreting instrumental music.</p>	<p><b>MUS A422</b>                    <b>Music in the Classical Period</b>                    <b>3 CR</b>            Contact Hours: 3 + 0            Prerequisites: MUS A222 and MUS A232.            Special Note: BA music majors must first pass MUS 154 and the functional piano exam by jury before enrolling in this course.            Musical style from 1720 to 1830. In-depth study of the music of pre-classic composers and Haydn, Mozart, and Beethoven. Requires intensive listening and reading of music.</p>
<p><b>MUS A405A</b>                    <b>University Jazz Ensemble</b>                    <b>1 CR</b>            Contact Hours: 2 + 0            Registration Restrictions: By audition.            Grade Mode: Pass/No Pass.            May be stacked with: MUS A405B.            Special Fees.            Special Note: May be repeated for credit.            Rehearsal and performance of big band jazz. Music selected from a variety of styles and eras including swing, rock, fusion and pop. Ensemble for non music majors.</p>	<p><b>MUS A423</b>                    <b>Music in the Romantic Period</b>                    <b>3 CR</b>            Contact Hours: 3 + 0            Prerequisites: MUS A222 and MUS A232.            Special Note: BA music majors must first pass MUS 154 and the functional piano exam by jury before enrolling in this course.            Musical style from 1820 to 1900. In-depth study of orchestral and choral music, opera, lieder, and music for piano. Requires intensive listening and reading of music.</p>
<p><b>MUS A405B</b>                    <b>University Jazz Ensemble</b>                    <b>2 CR</b>            Contact Hours: 2 + 0            Registration Restrictions: By audition.            May be stacked with: MUS A405A.            Special Fees.            Special Note: May be repeated for credit.            Rehearsal and performance of big band jazz. Music selected from a variety of styles and eras including swing, rock, fusion and pop. Elective for music majors.</p>	<p><b>MUS A424</b>                    <b>Music in the 20th Century</b>                    <b>3 CR</b>            Contact Hours: 3 + 0            Prerequisites: MUS A222 and MUS A232.            Special Note: BA music majors must first pass MUS A154 and the functional piano exam by jury before enrolling in this course.            Musical developments since 1900. In-depth study of serialism, neo-classicism, neo-Romanticism, expressionism, primitivism, minimalism, and styles since 1950. Requires intensive listening and reading of music.</p>
<p><b>MUS A407</b>                    <b>Jazz Combo</b>                    <b>2 CR</b>            Contact Hours: 2 + 0            Prerequisites: MUS A162.            Registration Restrictions: By audition.            Special Note: May be repeated for credit.            Rehearsal and performance of combo jazz styles Music selected from a variety of styles and eras including swing, Latin, and fusion. Meets small ensemble requirement for music majors.</p>	<p><b>MUS A431</b>                    <b>Counterpoint</b>                    <b>3 CR</b>            Contact Hours: 3 + 0            Prerequisites: MUS A232.            Study of the contrapuntal techniques of the 16th and 18th centuries. Features writing in appropriate vocal and instrumental forms.</p>
<p><b>MUS A408A</b>                    <b>University Percussion Ensemble</b>                    <b>1 CR</b>            Contact Hours: 2 + 0            Registration Restrictions: By audition.            Grade Mode: Pass/No Pass.            May be stacked with: MUS A408B.            Special Note: May be repeated for credit.            Study and performance of percussion chamber music including 20th century literature for percussion as well as transcriptions of earlier music. Ensemble for non music majors.</p>	<p><b>MUS A432</b>                    <b>Orchestration</b>                    <b>3 CR</b>            Contact Hours: 3 + 0            Prerequisites: MUS A232.            Principles and practices of composing and transcribing music for various instrumental ensembles, including band and orchestra.</p>
<p><b>MUS A408B</b>                    <b>University Percussion Ensemble</b>                    <b>2 CR</b>            Contact Hours: 2 + 0            Registration Restrictions: By audition.            May be stacked with: MUS A408A.            Special Note: May be repeated for credit.            Study and performance of percussion chamber music including 20th century literature for percussion as well as transcriptions of earlier music. Elective for music majors.</p>	<p><b>MUS A461</b>                    <b>Private Lessons</b>                    <b>2 CR</b>            Contact Hours: 2 + 0            Prerequisites: MUS A362.            Registration Restrictions: Departmental approval. Enrollment concurrent with appropriate master class.            Special Fees.            Continuation of MUS A362.</p>
<p><b>MUS A409A</b>                    <b>University Guitar Ensemble</b>                    <b>1 CR</b>            Contact Hours: 2 + 0            Registration Restrictions: By audition. Recommended: prior ensemble or solo recital experience.            Grade Mode: Pass/No Pass.            May be stacked with: MUS A409B.            Special Fees.            Special Note: May be repeated for credit.            Study and performance of traditional repertoire, Latin and European folk music, and popular and classical themes arranged for two or more guitars. Provides experience in sight-reading and refines practice and memorization skills. Emphasizes stylistic interpretation and stage delivery. Ensemble for non music majors.</p>	<p><b>MUS A462</b>                    <b>Private Lessons</b>                    <b>2 CR</b>            Contact Hours: 2 + 0            Prerequisites: MUS A461.            Registration Restrictions: Departmental approval. Enrollment concurrent with appropriate master class.            Special Fees.            Continuation of MUS A461.</p>
<p><b>MUS A409B</b>                    <b>University Guitar Ensemble</b>                    <b>2 CR</b>            Contact Hours: 2 + 0            Registration Restrictions: By audition. Recommended prior ensemble or solo recital experience.            May be stacked with: MUS A409A.            Special Fees.            Special Note: May be repeated seven times for credit.            Study and performance of traditional repertoire, Latin and European folk music, and popular and classical themes arranged for two or more guitars. Provides experience in sightreading and refines practice and memorization skills, stylistic interpretation, and stage delivery. Ensemble credit for guitar majors.</p>	<p><b>MUS A466</b>                    <b>String and Wind Master Class</b>                    <b>1 CR</b>            Contact Hours: 1 + 0            Registration Restrictions: Departmental approval. Enrollment concurrent with appropriate level of juried private lessons. One of the following: MUS A161, A162, A261, A262, A361, A362, A461, or A462.            Special Fees.            Special Note: Mandatory each semester for string and wind majors; 4 credits minimum required for BA music majors. May be repeated for a maximum of 8 credits.            Seminar in performance practice for string and wind players. Comparative analysis and discussion of string and wind literature to include close examination of their styles and periods (early Baroque through the 21st century). At least one performance required each semester.</p>



<b>MUS A467</b>	<b>Piano Master Class</b>	<b>2 CR</b>
Contact Hours: 2 + 0		
Registration Restrictions: Departmental approval. Enrollment concurrent with appropriate level of juried private lessons. One of the following: MUS A161, A162, A261, A262, A361, A362, A461, or A462.		
Special Note: Mandatory each semester for BM, Performance degree; 8 credits minimum required for BM, Music Education Emphasis and BA, Music degrees. May be repeated for a maximum of 16 credits.		
Seminar in performance practice for pianists. Comparative analysis and discussion of piano literature including close examination of its styles and periods (early Baroque through the 21st century). At least two performances required each semester.		
<b>MUS A468</b>	<b>Voice Master Class</b>	<b>2 CR</b>
Contact Hours: 2 + 0		
Registration Restrictions: Departmental approval. Enrollment concurrent with appropriate level of juried private lessons. One of the following: MUS A161, A162, A261, A262, A361, A362, A461, or A462.		
Special Fees.		
Special Note: Mandatory each semester for BM, Performance majors; 8 credits minimum required for BM, Music Education Emphasis and BA, Music degrees. May be repeated for a maximum of 16 credits.		
Seminar in performance practice for singers. Analysis, discussion and performance of solo vocal literature from early Baroque through to the 21st century. Weekly master classes, with at least two performances required for each topic.		
<b>MUS A469</b>	<b>Guitar Master Class</b>	<b>2 CR</b>
Contact Hours: 2 + 0		
Registration Restrictions: Departmental approval. Enrollment concurrent with appropriate level of juried private lessons. One of the following: MUS A161, A162, A261, A262, A361, A362, A461, or A462.		
Special Note: Mandatory each semester for BM, Performance majors; 8 credits minimum required for BM Music Education Emphasis and BA, Music degrees. May be repeated for a maximum of 16 credits.		
Designed to improve guitar performance through solo and duo performance experience in the classroom. Instruction in performance technique, stage presence, and correct stylistic interpretation. Development of critical pedagogical skills through discussions of fellow student and one's own performances. Comparative analysis and discussion of the literature, plucked instrument relatives and examination of its styles and periods (Renaissance through the 21st century). At least two performances required each semester.		
<b>MUS A603</b>	<b>Wind Ensemble Performance Projects</b>	<b>2 CR</b>
Contact Hours: 1 + 4		
Registration Restrictions: Completion of baccalaureate degree in music and audition.		
Development and implementation of standards based curricular performance projects for band. Students participate in University Wind Ensemble for lab experience.		
<b>MUS A668A</b>	<b>Methods for Teaching Music I, K-12</b>	<b>3 CR</b>
Contact Hours: 3 + 0		
Prerequisites: EDFN A601 and EDFN A602 and EDFN A603.		
Registration Restrictions: Admission to the Master of Arts in Teaching Program; departmental approval required.		
Corequisite: EDFN A695C.		
Special Note: Concurrent enrollment in internship is required.		
Provides students with the fundamentals of standards-based curriculum planning and assessment for the diverse student population in secondary classrooms. Includes an overview of the content areas typically taught in K-12 music curriculum. Integrates technology, health enhancement, literacy, and education for special populations.		
<b>MUS A668B</b>	<b>Methods for Teaching Music II, K-12</b>	<b>3 CR</b>
Contact Hours: 3 + 0		
Prerequisites: MUS A668A and EDFN A695C.		
Registration Restrictions: Admission to the Master of Arts in Teaching Program; departmental approval required.		
Corequisite: EDFN A695D.		
Special Note: Concurrent enrollment in internship is required.		
Provides students with the opportunity to develop pedagogical content knowledge by connecting theoretical knowledge and understanding of human development and learning with both general principles of instruction and content-specific strategies for teaching music.		

## NS - Nursing Sciences

*Offered through the College of Health & Social Welfare  
Professional Studies Building (PSB), Room 103, 786-4550  
<http://nursing.uaa.alaska.edu>*

<b>NS A204</b>	<b>Technology and Nursing Informatics</b>	<b>3 CR</b>
Contact Hours: 3 + 0		
Prerequisites: ENGL A111 and ENGL A213 and [PHIL A101 or PHIL A201] or ENGL A120.		
Registration Restrictions: Admission to Clinical Nursing Major or RN licensure in the State of Alaska.		
Corequisite: NS A216 and NS A300.		
Special Fees.		
Concepts and applications of nursing informatics in health care organizations. Evaluate the impact of technology on nursing practice and on client education, including privacy and security issues. Explore electronic resources available to clients and nurses.		
<b>NS A205</b>	<b>Nursing Informatics</b>	<b>3 CR</b>
Contact Hours: 3 + 0		
Registration Restrictions: Admission to clinical major and/or RN Licensure in the State of Alaska.		
Special Fees.		
Concepts and applications of nursing informatics in health care organizations. Explore electronic resources available to clients and nurses.		
<b>NS A216</b>	<b>Pathophysiology</b>	<b>4 CR</b>
Contact Hours: 4 + 0		
Prerequisites: BIOL A112 with minimum grade of C and CHEM A104 with minimum grade of C and CHEM A104L with minimum grade of C.		
Registration Restrictions: Admission to Clinical Nursing major or RN licensure in State of Alaska.		
Corequisite: NS A204 and NS A300.		
Special Fees.		
Special Note: Offered Fall and Spring Semesters.		
Basic conceptual study of disease and the resultant abnormal functioning. Key concepts are utilized to assist students to develop knowledge and understanding of basic physiologic mechanisms of and responses to disease.		
<b>NS A300</b>	<b>Foundations of Nursing I: Roles, Processes, and Trends</b>	<b>4 CR</b>
Contact Hours: 4 + 0		
Prerequisites: ENGL A111 and ENGL A213 and [PHIL A101 or PHIL A201] or ENGL A120.		
Corequisite: NS A204 and NS A216.		
Special Fees.		
Explores the implications of historical events and contemporary trends on the profession of nursing. Nursing roles and the nursing process are examined with an emphasis on promoting health and preventing disease.		
<b>NS A303</b>	<b>Foundations of Nursing II: Therapeutics</b>	<b>3 CR</b>
Contact Hours: 3 + 0		
Prerequisites: NS A204 and NS A216 and NS A300.		
Corequisite: NS A303L and NS A309.		
Special Fees.		
Special Note: Offered Fall and Spring Semesters.		
Systematic use of the nursing process in the care of individuals in a variety of settings. Emphasis on identifying the physiological and psychosocial alterations in health patterns and the basic therapeutic nursing intervention.		
<b>NS A303L</b>	<b>Foundations of Nursing II: Laboratory</b>	<b>5 CR</b>
Contact Hours: 0 + 15		
Prerequisites: NS A204 and NS A216 and NS A300.		
Corequisite: NS A303 and NS A309.		
Grade Mode: Pass/No Pass.		
Special Fees.		
Application of the nursing process and basic therapeutic nursing intervention in the laboratory and selected clinical settings.		
<b>NS A305</b>	<b>Health Assessment of Individuals</b>	<b>2 CR</b>
Contact Hours: 2 + 0		
Prerequisites: (NS A205 or concurrent enrollment).		
Major Restriction: Must be Nursing Science major.		
Registration Restrictions: Admission to the clinical major and RN licensure in the state of Alaska.		
Corequisite: NS A305L.		
Special Note: Offered only in Fall semester.		
Focuses on health assessment across the lifespan with an emphasis on interviewing and data collection, interpretation, and documentation. Provides the skills for developing a systematic approach to performing a health history and physical examination.		

## Course Descriptions

### NS A305L Health Assessment of Individuals Laboratory 1 CR

Contact Hours: 0 + 3

Prerequisites: (NS A205 or concurrent enrollment).

Major Restriction: Must be Nursing Science major.

Registration Restrictions: Admission to clinical major and RN licensure in the state of Alaska.

Corequisite: NS A305.

Grade Mode: Pass/No Pass.

Special Fees.

Laboratory experience to apply knowledge and skills introduced in NS A305.

### NS A308 Dimensions of Professional Nursing Practice 3 CR

Contact Hours: 3 + 0

Prerequisites: NS A204.

Special Fees.

Facilitates the RN student's return to school to the baccalaureate nursing program. Introduces the theories, concepts, roles, and competencies relevant to professional nursing practice. The history of nursing provides the context for exploring the evolution of nursing as a profession. Examines current social, political, and legal issues and trends in health care and their implications for nursing practice and the RN student's goals for professional development.

### NS A309 Pharmacology in Nursing 3 CR

Contact Hours: 3 + 0

Prerequisites: NS A204 with minimum grade of C and NS A216 with minimum grade of C and NS A300 with minimum grade of C.

Registration Restrictions: Admission to BS, Nursing Science major, or RN licensure in State of Alaska.

Special Fees.

In-depth consideration of the use of prescription and non-prescription drugs by individuals at varying developmental levels and with differing health status. Within the context of the nursing process, students develop the knowledge and skills needed to safely administer drugs, to assist clients to develop decision-making skills to enable independent management of drug regimens, to evaluate clients' responses to drug therapy, and to prevent and minimize toxicity.

### NS A313 Health Disruptions I 3 CR

Contact Hours: 3 + 0

Prerequisites: NS A204 with minimum grade of C and NS A216 with minimum grade of C and NS A300 with minimum grade of C and NS A303 with minimum grade of C and NS A303L with minimum grade of P and NS A309 with minimum grade of C.

Major Restriction: Must be Nursing Science major.

Corequisite: NS A313L.

Introduces episodic health disruptions occurring across the lifespan to include collaborative care and nursing management. Nursing therapeutics focus on nursing management of the individual and the family within an acute care setting.

### NS A313L Health Disruptions I Laboratory 3 CR

Contact Hours: 0 + 9

Prerequisites: NS A204 with minimum grade of C and NS A216 with minimum grade of C and NS A300 with minimum grade of C and NS A303 with minimum grade of C and NS A303L with minimum grade of P and NS A309 with minimum grade of C.

Major Restriction: Must be Nursing Science major.

Corequisite: NS A313.

Grade Mode: Pass/No Pass.

Special Fees.

Clinical experience introducing episodic health disruptions occurring across the lifespan to include collaborative care and nursing management. Emphasizes psychomotor competencies associated with clinical conditions in the clinical setting. Nursing therapeutics focus on nursing management of the individual and the family within the acute care setting.

### NS A314 Health I for Registered Nurses 2 CR

Contact Hours: 2 + 0

Prerequisites: NS A205 with minimum grade of C and NS A308 with minimum grade of C.

Major Restriction: Must be Nursing Science major.

Registration Restrictions: Admission to the clinical major and RN licensure in the state of Alaska.

Corequisite: NS A314L and NS A417.

Special Note: Offered only in Spring semester.

Emphasizes health promotion, illness prevention, and health protection strategies for individuals and families across the lifespan to achieve and maintain healthy lifestyles and self-management of health. Introduces concepts of community health nursing, epidemiology, and injury prevention.

### NS A314L Health I for Registered Nurses Laboratory 2 CR

Contact Hours: 0 + 6

Prerequisites: NS A205 with minimum grade of C and NS A308 with minimum grade of C.

Major Restriction: Must be Nursing Science major.

Registration Restrictions: Admission to the clinical major and RN licensure in the state of Alaska.

Corequisite: NS A314.

Grade Mode: Pass/No Pass.

Special Fees.

Special Note: Offered only in Spring semester.

Provides clinical experience to build skills and reinforce student learning in NS A314.

### NS A315 Health I: Nursing Therapeutics 3 CR

Contact Hours: 2 + 2

Prerequisites: NS A204 with minimum grade of C and NS A216 with minimum grade of C and NS A300 with minimum grade of C and NS A303 with minimum grade of C and NS A303L with minimum grade of P and NS A309 with minimum grade of C.

Major Restriction: Must be Nursing Science major.

Corequisite: NS A315L.

Emphasizes health states and risk factors in individuals and families across the lifespan that are amenable to health promotion and illness prevention efforts, achieving and maintaining healthy lifestyles, as well as self-management of health.

### NS A315L Health I: Nursing Therapeutics Laboratory 3 CR

Contact Hours: 0 + 9

Prerequisites: NS A204 with minimum grade of C and NS A216 with minimum grade of C and NS A300 with minimum grade of C and NS A303 with minimum grade of C and NS A303L with minimum grade of P and NS A309 with minimum grade of C.

Corequisite: NS A315.

Grade Mode: Pass/No Pass.

Special Fees.

Provides clinical experience to build skills and reinforce student learning in NS A315.

### NS A400 Nursing Research 3 CR

Contact Hours: 3 + 0

Prerequisites: NS A303 with minimum grade of C and NS A303L with minimum grade of P and NS A313 with minimum grade of C and NS A313L with minimum grade of P and NS A315 with minimum grade of C and NS A315L with minimum grade of P and PHIL A302 with minimum grade of C.

Registration Restrictions: Prior completion of a statistics course.

Special Fees.

Introduction to research methods in nursing and health care. Emphasis on identification of researchable questions, problem formulation, research design, data collection, and analysis. Focus on the role of the professional nurse prepared at the baccalaureate level and on strategies for the utilization of research findings in clinical practice.

### NS A401 Health Disruptions II 3 CR

Contact Hours: 3 + 0

Prerequisites: NS A313 with minimum grade of C and NS A313L with minimum grade of P and NS A315 with minimum grade of C and NS A315L with minimum grade of P.

Corequisite: NS A401L.

Special Fees.

Emphasis on episodic health disruptions in specialty-focused care. Nursing therapeutics focus on care of individuals, families and environments.

### NS A401L Health Disruptions II Laboratory 2.5 CR

Contact Hours: 0 + 7.5

Prerequisites: NS A313 with minimum grade of C and NS A313L with minimum grade of P and NS A315 with minimum grade of C and NS A315L with minimum grade of P.

Corequisite: NS A401.

Grade Mode: Pass/No Pass.

Special Fees.

Provides clinical experience to build skills and reinforce student learning in NS A401.

### NS A406 Nursing Therapeutics in Complex Health Disruptions 2 CR

Contact Hours: 2 + 0

Prerequisites: NS A401 with minimum grade of C and NS A401L with minimum grade of P.

Corequisite: NS A406L.

Emphasis on health disruptions with complex pathophysiology and/or psychological adjustments of clients of all ages and their families. Nursing management includes a high level of collaboration with other health care providers and agencies utilizing previously learned nursing therapeutics.

<p><b>NS A406L                    Nursing Therapeutics                    2.5 CR</b>  <b>in Complex Health Disruptions Laboratory</b></p> <p>Contact Hours: 0 + 7.5  Prerequisites: NS A401 with minimum grade of C and NS A401L with minimum grade of P.  Corequisite: NS A406.  Grade Mode: Pass/No Pass.  Special Fees.  Provides clinical experience to build skills and reinforce student learning in NS A406.</p>	<p><b>NS A416                    Concentration in Clinical Nursing                    .5 CR</b></p> <p>Contact Hours: 1 + 0  Prerequisites: NS A400 with minimum grade of C and NS A401 with minimum grade of C and NS A401L with minimum grade of P and NS A406 with minimum grade of C and NS A406L with minimum grade of P and NS A411 with minimum grade of C and NS A411L with minimum grade of P and NS A415 with minimum grade of C.  Corequisite: NS A416L.  Grade Mode: Pass/No Pass.  Special Fees.  Facilitates the integration and synthesis of knowledge basic to a beginning professional level of nursing practice. A major emphasis upon analyzing and evaluating issues arising in the practice setting.</p>
<p><b>NS A408                    Complex Health Disruptions:                    2 CR</b>  <b>Nursing Therapeutics</b></p> <p>Contact Hours: 2 + 0  Prerequisites: NS A314 with minimum grade of C and NS A314L with minimum grade of P.  Major Restriction: Must be Nursing Science major.  Registration Restrictions: RN-BS program students only.  Corequisite: NS A408L.  Emphasis on health disruptions with complex pathophysiology and/or psychological adjustments of clients of all ages and their families. Nursing management includes a high level of collaboration with other health care providers and agencies utilizing previously learned nursing therapeutics from prerequisite courses and nursing experience.</p>	<p><b>NS A416L                    Concentration in Clinical Nursing Lab                    3.5 CR</b></p> <p>Contact Hours: 0 + 10.5  Prerequisites: NS A400 with minimum grade of C and NS A401 with minimum grade of C and NS A401L with minimum grade of P and NS 406 with minimum grade of C and NS A406L with minimum grade of P and NS A411 with minimum grade of C and NS A411L with minimum grade of P and NS A415 with minimum grade of C.  Corequisite: NS A416.  Grade Mode: Pass/No Pass.  Application of clinical skills acquired throughout the BS Nursing program in a clinical setting incorporating research, management, and theory in delivering nursing care to individuals, families, and populations.</p>
<p><b>NS A408L                    Complex Health Disruptions Laboratory:                    2 CR</b>  <b>Nursing Therapeutics</b></p> <p>Contact Hours: 0 + 6  Prerequisites: NS A314 with minimum grade of C and NS A314L with minimum grade of P.  Major Restriction: Must be Nursing Science major.  Registration Restrictions: RN-BS students only.  Corequisite: NS A408.  Grade Mode: Pass/No Pass.  Special Fees.  Clinical experience to build skills and reinforce student learning in NS A408.</p>	<p><b>NS A417                    Management in Nursing                    3 CR</b></p> <p>Contact Hours: 3 + 0  Prerequisites: NS A305 and NS A308.  Major Restriction: Must be Nursing Science major.  Registration Restrictions: RN licensure in state of Alaska.  Corequisite: NS A314 and NS A314L.  Special Fees.  Special Note: Offered only in Spring semester.  Explores theories of management in relation to health care delivery systems. Discusses strategies and techniques for effective leadership and management in health care environments. Synthesizes and integrates knowledge and skills gained from clinical practice into theoretical context.</p>
<p><b>NS A411                    Health II: Nursing Therapeutics                    3 CR</b></p> <p>Contact Hours: 3 + 0  Prerequisites: NS A400 with minimum grade of C and NS A401 with minimum grade of C and NS A401L with minimum grade of P and NS A406 with minimum grade of C and NS A406L with minimum grade of P.  Registration Restrictions: Completion of GER Tier 1 (basic college-level skills) courses and junior standing.  Corequisite: NS A411L.  Course Attributes: UAA GER Integrative Capstone.  Focuses on describing the health status of populations and vulnerable groups with an emphasis on identifying health disparities and population-focused interventions that foster risk reduction through health promotion and disease prevention. The impact of social, cultural, economic, and global factors on health status will be explored as they relate to health policy and nursing's role in the policymaking process.</p>	<p><b>NS A420                    Nursing Care of Special Populations                    3 CR</b></p> <p>Contact Hours: 3 + 0  Registration Restrictions: Enrollment in the School of Nursing or hold RN licensure in Alaska.  Special Fees.  Investigation of the challenges facing nurses caring for individuals with a developmental (intellectual or physical) disability. Exploration of communication styles, psychosocial needs, physical needs, and integration of individuals with developmental disabilities into the community health care system.</p>
<p><b>NS A411L                    Health II: Nursing Therapeutics Laboratory                    3 CR</b></p> <p>Contact Hours: 0 + 9  Prerequisites: NS A400 with minimum grade of C and NS A401 with minimum grade of C and NS A401L with minimum grade of P and NS A406 with minimum grade of C and NS A406L with minimum grade of P.  Corequisite: NS A411.  Grade Mode: Pass/No Pass.  Special Fees.  Clinical experience to build skills and reinforce student learning in NS A411.</p>	<p><b>NS A422                    Nursing Care for the Critically Ill Adult                    3 CR</b></p> <p>Contact Hours: 2 + 2  Prerequisites: NS A313 with minimum grade of C and NS A315 with minimum grade of C.  Registration Restrictions: RN license to practice in the state of Alaska.  Special Fees.  Focuses on the specific nursing care needs of the critically ill adult from time of admission through discharge and rehabilitation. Explores roles of the critical care nurse. Includes a participant observation experience in local critical care units.</p>
<p><b>NS A415                    Nursing Management and Legal Perspectives                    4 CR</b></p> <p>Contact Hours: 4 + 0  Prerequisites: NS A313 with minimum grade of C and NS A315 with minimum grade of C and NS A319 with minimum grade of C.  Special Fees.  Theories of management and organizations for basic students in relation to health care delivery systems. Emphasis is on the role of the professional nurse in health care organizations. Provides an overview of skills and techniques used for effective leadership and management of health care services. Exploration of legal implications and perspectives in nursing practice.</p>	<p><b>NS A423                    Transcultural Nursing                    3 CR</b></p> <p>Contact Hours: 3 + 0  Prerequisites: NS A315 with minimum grade of C and NS A315L with minimum grade of P.  Major Restriction: Must be Nursing Science major.  Registration Restrictions: RN license to practice in the State of Alaska, enrolled in baccalaureate program or instructor permission.  May be stacked with: NS A623.  Special Fees.  Special Note: Students may take NS A423 or NS A623 for credit, but not both.  Examines socio-cultural factors that influence health, illness, and health-related behaviors, including cultural beliefs, values, and lifestyles. Explores the historical development of the major non-western and western health systems with implications for nursing practice. Places health-related behaviors within a cultural context and applies the elements of a culturally sensitive approach to clients seeking professional nursing care services.</p>

## Course Descriptions

<b>NS A424</b>	<b>Issues in Women's Health</b>	<b>3 CR</b>	<b>NS A433</b>	<b>Health Education: Theory and Practice</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: NS A300 with minimum grade of C and NS A303 with minimum grade of C and NS A303L with minimum grade of P and NS A309 with minimum grade of C and NS A313 with minimum grade of C and NS A313L with minimum grade of P and NS A315 with minimum grade of C and NS A315L with minimum grade of P. Registration Restrictions: If prerequisites not met, then RN licensure in the state of Alaska. Special Fees. Explores current issues, research, and controversies affecting women's health with a focus on health promotion and maintenance. Addresses life cycle issues, special needs, unique populations and advocacy.			Contact Hours: 3 + 0 Prerequisites: NS A300 with minimum grade of C or HS A220 with minimum grade of C. Registration Restrictions: Faculty permission. Crosslisted with: HS A433. Special Fees. Provides the theoretical foundation for health education and health promotion. Develops students' abilities to design and deliver health education programs.		
<b>NS A426</b>	<b>Critical Care Concepts in Acute Care Settings</b>	<b>3 CR</b>	<b>NS A434</b>	<b>Health Care of the Elderly</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: RN licensure in state of Alaska. Special Fees. Prepares experienced, registered nurses for entry-level practice in critical care and provides opportunities to analyze past and current clinical situations and adapt concepts used in critical care settings to their current practice. Emphasis on developing an ability to predict and project events for clients who are either critically ill or have the potential to develop a critical illness. Builds on sound assessment skills and broad experiences of competent registered nurses.			Contact Hours: 3 + 0 Prerequisites: NS A300 with minimum grade of C and NS A303 with minimum grade of C and NS A303L with minimum grade of P and NS A309 with minimum grade of C. Registration Restrictions: Prerequisites or RN licensure in Alaska. Special Fees. Overview of issues which affect older adults and their lifestyles. Addresses normal physiological and psychosocial aging changes, and health concepts of prevention, promotion, and protection. Includes issues affecting care giving of older family members in a multitude of settings. Explores health policies which have financial, legal, and ethical implications. Highlights special needs of Alaskan elderly.		
<b>NS A427</b>	<b>Care of Victims of Family Violence</b>	<b>3 CR</b>	<b>NS A435</b>	<b>Disaster Nursing</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: NS A300 and NS A303 and NS A309. Registration Restrictions: If prerequisites not met, RN licensure in State of Alaska. Special Fees. Overview of family violence and its impact on health. The etiology of family violence is explored from various theoretical perspectives with an emphasis on prevention and intervention with at-risk groups. Focuses on the collaborative role of the nurse and the knowledge and skills applicable to providing care for victims of family violence.			Contact Hours: 3 + 0 Prerequisites: (NS A303 with minimum grade of C or concurrent enrollment) and (NS A309 with minimum grade of C or concurrent enrollment). Registration Restrictions: Prerequisites or RN licensure in Alaska. Exploration of varying types of disasters, their effects on populations and the subsequent role of federal, state, and local agencies in management. Examines roles of the health care agencies and nursing responsibilities both within the community and in acute care agencies.		
<b>NS A428</b>	<b>Nursing Clients with Chemical Dependency</b>	<b>3 CR</b>	<b>NS A439</b>	<b>Spirituality in Nursing</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: NS A300 with minimum grade of C and NS A303 with minimum grade of C and NS A309 with minimum grade of C. Registration Restrictions: If prerequisites not met, then RN licensure in the state of Alaska. Special Fees. In-depth study of the pathophysiology, psychopharmacologic and sociocultural effects of chemical dependency. Emphasizes the collaborative role of the nurse in managing the care of clients who are chemically dependent and their families using the nursing process.			Contact Hours: 3 + 0 Prerequisites: NS A300 with minimum grade of C. Registration Restrictions: Nursing major or instructor permission Special Fees. Describes the philosophical, historical, and cultural influences on spiritual development through the lifespan. Examines the nurse's role in applying the nursing process to meet the spiritual needs of clients during illness and health. Identifies models and research findings applicable to spiritual care.		
<b>NS A429</b>	<b>Perioperative Nursing</b>	<b>3 CR</b>	<b>NS A440</b>	<b>Nursing Honors I: Project Exploration</b>	<b>1 CR</b>
Contact Hours: 2 + 3 Prerequisites: NS A300 with minimum grade of C and NS A303 with minimum grade of C and NS A303L with minimum grade of P and NS A309 with minimum grade of C and NS A313 with minimum grade of C and NS A313L with minimum grade of P and NS A315 with minimum grade of C and NS A315L with minimum grade of P. Registration Restrictions: If prerequisites not met, then RN licensure in state of Alaska. Special Fees. Introduction to the operating room, its origin and purpose, including functions of the operating room team members. Covers the perioperative nursing role as it relates to a client undergoing surgery. The nursing process is utilized as a basis for planning, implementing, and evaluating individualized care.			Contact Hours: 0.5 + 1.5 Prerequisites: (NS A400 or concurrent enrollment). Registration Restrictions: Permission for enrollment in Nursing Honors by Baccalaureate Chair and Nursing Baccalaureate Curriculum Committee. Completion of all required 300 level nursing courses. Special Fees. Developing a rationale, justification, and plan for a project involving nursing practice and/or nursing management of a client or population in any health care setting. Basic research techniques and discovery are used.		
<b>NS A430</b>	<b>Rural Health Care</b>	<b>3 CR</b>	<b>NS A441</b>	<b>Nursing Honors II: Project Implementation</b>	<b>2 CR</b>
Contact Hours: 3 + 0 Prerequisites: NS A300 with minimum grade of C. Registration Restrictions: If prerequisite not met, then RN licensure in the state of Alaska. Special Fees. Analysis of rural health care from a problem-solving framework. Alaskan communities are utilized as a focus for the course.			Contact Hours: 0.5 + 4.5 Prerequisites: NS A400 and NS A440. Registration Restrictions: Permission for enrollment in Nursing Honors by Baccalaureate Chair and Nursing Baccalaureate Curriculum Committee. Special Fees. Completion and presentation of the project identified in NS A440. Includes application of basic research techniques and discovery for a question involving nursing practice and/or nursing management of a client or population in any health care setting.		
<b>NS A431</b>	<b>Human Sexuality in Health and Illness</b>	<b>3 CR</b>	<b>NS A451</b>	<b>Introduction to Neonatal Intensive Care Nursing</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: NS A300 with minimum grade of C and NS A303 with minimum grade of C and NS A303L with minimum grade of P and NS A309 with minimum grade of C. Registration Restrictions: If prerequisites not met, then RN licensure in state of Alaska. Special Fees. Explores physiological, psychological and social nature of human sexuality and implications for the role of the professional nurse. Emphasizes the sexual behavior of individuals and groups and the impact of illness on sexuality.			Contact Hours: 3 + 0 Prerequisites: (NS A401 or concurrent enrollment). Introduction to neonatal critical care nursing. Topics include the pathophysiology and nursing management of common neonatal disease states, developmentally-focused nursing care of premature and newborn infants, and current issues and trends in neonatal nursing.		
			<b>NS A601</b>	<b>Advanced Pathophysiology</b>	<b>3 CR</b>
			Contact Hours: 3 + 0 Registration Restrictions: Graduate standing or faculty permission. Special Fees. Analysis and critical review of disease processes and resulting abnormal functioning across the lifespan. Critical thinking is used to interpret pathophysiological changes that result in clinical manifestations indicative of illness.		

<b>NS A602      Advanced Health Assessment in Primary Care      3 CR</b> Contact Hours: 2 + 3 Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Grade of C or better in an undergraduate health and physical assessment course. Admission to graduate nursing program, Family Nurse Practitioner, Nursing Education, or Psychiatric-Mental Health Nurse Practitioner option. Current Alaska RN licensure. Special Fees.	<b>NS A623      Transcultural Nursing      3 CR</b> Contact Hours: 3 + 0 Level Restriction: Must be Graduate - UAA level. Registration Restrictions: RN license to practice in the State of Alaska or instructor permission. Graduate standing permission May be stacked with: NS A423. Special Fees. Special Note: Students may take NS A423 or NS A623 for credit, but not both.
Provides a systematic approach to advanced physical, psychological, sociocultural, developmental, and spiritual assessment of individuals across the lifespan. Builds on basic health assessment knowledge and skills, laboratory and radiology interpretation, validation, documentation and analysis of assessment findings.	Analyzes socio-cultural factors that influence health, illness, and health-related behaviors, including cultural beliefs, values, and lifestyles. Explores the historical development of the major non-western and western health systems with implications for nursing practice. Places health-related behaviors within a cultural context and applies the models and research findings to culturally sensitive approaches to clients and families seeking professional nursing care. Describes areas of transcultural nursing research and evidenced-based practice.
<b>NS A610      Pharmacology for Primary Care      3 CR</b> Contact Hours: 3 + 0 Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Concurrently enrolled in NS A661 or NS A671. Current license to practice as a registered nurse in the state of Alaska. Special Fees.	<b>NS A624      Qualitative Nursing Research      3 CR</b> Contact Hours: 3 + 0 Prerequisites: NS A620. Registration Restrictions: Graduate Standing. Special Fees.
Advanced level pharmacology course that assists health care professionals in the selecting, prescribing, and monitoring of pharmaceutical agents utilized in the primary care setting. Legend drugs, over-the-counter agents, and some complementary therapeutics will be discussed. Emphasis is on the pharmacodynamics of medications most commonly prescribed for the treatment of respiratory diseases, infections, genitourinary disease, preventive health, dermatological diseases, musculoskeletal conditions, cardiovascular diseases, depression and anxiety, and reproductive health.	Focuses on qualitative paradigms, traditions, philosophical foundations and methods for studying nursing and health-related phenomena. Develops and critiques data collection processes and approaches to data analysis. Explores scientific and ethical issues surrounding qualitative research.
<b>NS A611      Psychopharmacology      3 CR</b> Contact Hours: 3 + 0 Registration Restrictions: Graduate standing or permission of instructor. Current licensure to practice as a registered nurse in Alaska. Special Fees.	<b>NS A625      Biostatistics for Health Professionals      3 CR</b> Contact Hours: 3 + 0 Registration Restrictions: Graduate standing or instructor permission. Undergraduate statistics course with a grade of C or better. Crosslisted with: HS A625. Special Fees.
Focuses on psychopharmacological principles and therapeutic practices used to safely and effectively select, prescribe, and monitor psychotropic agents utilized in treating mental health problems and psychiatric disorders across the lifespan.	Principles of statistical reasoning and quantitative skills for analyzing health data. Topics include the binomial, Poisson, and normal distributions, the treatment of rates, measures of location and dispersion, and testing of statistical hypotheses. Both descriptive and inferential statistics are illustrated in mortality and morbidity problem sets requiring manual or computer assisted calculations. The comparison of methodological techniques and the choice of appropriate statistical methods to answer health research questions are stressed. This course is designed to enhance rather than substitute for statistical knowledge gained at the undergraduate level.
<b>NS A618      Role Development in Advanced Practice Nursing      2 CR</b> Contact Hours: 2 + 0 Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Graduate standing Special Fees.	<b>NS A625L      Biostatistics for Health Professionals Lab      1 CR</b> Contact Hours: 0 + 3 Prerequisites: (HS A625 or concurrent enrollment) or (NS A625 or concurrent enrollment). Registration Restrictions: Grade of C or better in undergraduate research and statistics. Graduate status or faculty permission. Grade Mode: Pass/No Pass. Crosslisted with: HS A625L.
Investigates the historical, political, social, legal, educational, and economic factors that have influenced the development of advanced nursing roles. Examines contemporary issues, including ethical and cultural considerations and their influence on practice environments. Differentiates the expanded roles of advanced practice nursing in a variety of health care and educational settings.	Introduction to statistical analysis using the Statistical Package for the Social Sciences (SPSS) computer program. Focuses on creating a database, evaluating these data for entry errors, identifying statistical test assumptions, and computing descriptive and inferential statistics.
<b>NS A619      Health Policy Issues in Advanced Practice Nursing      2 CR</b> Contact Hours: 2 + 0 Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Graduate standing Special Fees.	<b>NS A626      Principles of Epidemiology      3 CR</b> Contact Hours: 3 + 0 Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Graduate standing or faculty permission. Crosslisted with: HS A626. Special Fees.
Analyzes procedures by which governmental and private agencies make decisions that affect the health of populations. Explores the influence of lay, professional and special interest groups in relation to legislation, allocation of resources, and the setting of health priorities. Examines current issues in health policy, focusing on how policy is changed, interpreted, and implemented.	Presents the study of patterns of disease and injury in human populations and the application of this study to the control of health problems. Introduces students to the basic principles and study designs of epidemiology. Covers the application of epidemiologic methods to the understanding of the occurrence and control of conditions such as infectious and chronic diseases, psychological and behavioral disorders, community and environmental health hazards, accidents, and genetic conditions.
<b>NS A620      Nursing Research Methods      4 CR</b> Contact Hours: 4 + 0 Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Grade of C or better in undergraduate research course and basic statistics course. Graduate standing. Special Fees.	<b>NS A631      Family Nurse Practitioner Focus on Women's Health and Obstetrics I      2 CR</b> Contact Hours: 1 + 4 Registration Restrictions: Enrollment in a graduate degree or certificate program in the School of Nursing. Current immunization per SON policy; current CPR certification; individual malpractice insurance policy. Licensed as an advanced nurse practitioner in the State of Alaska with certification as a pediatric nurse practitioner.
Emphasizes critical appraisal and synthesis of research qualitative and quantitative literature. Provides for the acquisition of advanced knowledge and skills in scientific inquiry, including proposal development. Addresses the evidence-based approach to research utilization in advanced nursing practice.	Preparation for the expanded role of family practice focus in primary care. Includes advanced history and physical assessment skills for clients of all ages with a focus on developing families and women. Clinical focus includes acquisition of skills and diagnostic evaluation methods required for management of clients. Principal clinical experiences will be in the primary care of women and childbearing families with a focus on wellness and prevention.
<b>NS A621      Knowledge Development for Advanced Nursing Practice      3 CR</b> Contact Hours: 3 + 0 Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Graduate standing Special Fees.	
Integrates theory from nursing and other disciplines to describe and explain human responses in health and illness. Critically analyzes theories for adequacy of conceptualization, measurement, and application. Theories include adaptation, illness prevention, health promotion, and change in relation to individuals, families, and populations.	

## Course Descriptions

<p><b>NS A632</b>                      <b>Family Nurse Practitioner Focus on Pediatrics I</b>                      <b>2 CR</b></p> <p>Contact Hours: 1 + 4 Registration Restrictions: Enrollment in a graduate degree or certificate program in the School of Nursing; current immunizations per SON policy; current CPR certification; individual malpractice insurance policy; advanced nurse practitioner license in Alaska with certification as a women's health nurse practitioner.</p> <p>Preparation for expansion to primary care of all ages. Includes advanced history and physical assessment skills for clients of pediatric ages with a focus on developing families. Clinical focus includes acquisition of skills and diagnostic evaluation methods required for management of clients. Principal clinical experiences will be in the primary care of children and child-rearing families with a focus on wellness and prevention.</p>	<p><b>NS A644</b>                      <b>Distance Education in Nursing</b>                      <b>3 CR</b></p> <p>Contact Hours: 3 + 0 Prerequisites: NS A640 and NS A641. Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Graduate standing. Special Fees.</p> <p>Acquires knowledge and understanding of methods and strategies for the distance delivery of nursing education, including theoretical and clinical learning. Examines the "fit" between distance programming and institutional and program missions, program philosophy, and nursing curriculum. Investigates the internal and external fiscal, human, and service supports required for program success. Applies distance education strategies to the development of learning units.</p>
<p><b>NS A635</b>                      <b>Family Nurse Practitioner Focus on Women's Health and Obstetrics II</b>                      <b>2 CR</b></p> <p>Contact Hours: 1 + 4 Prerequisites: NS A631 and NS A633 with minimum grade of C. Registration Restrictions: Enrollment in a graduate degree or certificate program in the School of Nursing. Licensed as an advanced nurse practitioner in the State of Alaska with certification as a pediatric nurse practitioner. Current CPR certification; individual malpractice insurance policy; current immunization per SON policy.</p> <p>Continuing preparation for expansion to primary care of all ages. Includes advanced history and physical assessment skills for female clients of all ages with a continuing focus on developing families. Clinical focus includes acquisition of skills and diagnostic evaluation methods required for management of clients. Principal clinical experiences will be in the primary care of females and childbearing families with a focus on wellness, prevention, and primary care of common diseases.</p>	<p><b>NS A647</b>                      <b>Teaching Practicum in Nursing</b>                      <b>3 CR</b></p> <p>Contact Hours: 1 + 8 Prerequisites: NS A601 and NS A602 and NS A640 and NS A641 and NS A643 and NS A644. Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Graduate standing. Special Fees.</p> <p>Applies educational theory and skills to the role of nurse educator in a variety of clinical and classroom settings. Participates in a seminar to identify, analyze, and solve teaching and learning problems related to the practicum.</p>
<p><b>NS A636</b>                      <b>Family Nurse Practitioner Focus on Pediatrics II</b>                      <b>2 CR</b></p> <p>Contact Hours: 1 + 4 Prerequisites: NS A632.</p> <p>Registration Restrictions: Enrollment in a graduate degree or certificate program in the School of Nursing. Licensed as an advanced nurse practitioner in the State of Alaska with certification as a women's health nurse practitioner. Current CPR certification; individual malpractice insurance policy; current immunization per SON policy.</p> <p>Continuing preparation for expansion to primary care of all ages. Includes advanced history and physical assessment skills for clients of pediatric ages with a focus on developing families. Clinical focus includes acquisition of skills and diagnostic evaluation methods required for management of clients. Principal clinical experiences will be in the primary care of children and child-rearing families with a focus on wellness, prevention, and primary care of common diseases.</p>	<p><b>NS A660</b>                      <b>Family Nurse Practitioner I</b>                      <b>4/6 CR</b></p> <p>Contact Hours: 2 + 4 or 8 + 16 Prerequisites: NS A602. Registration Restrictions: Admission to a graduate degree or certificate program in the School of Nursing. Current Alaska RN license; current CPR certification; current immunization per SON policy. Corequisite: NS A601. Special Fees.</p> <p>Beginning preparation for primary care. Includes advanced history and physical assessment skills for clients of all ages with a focus on developing families. Clinical focus includes acquisition of skills and diagnostic evaluation methods required for management of clients. Principal clinical experiences will be in the primary care of women, childbearing, and child-rearing families with a focus on wellness and prevention.</p>
<p><b>NS A640</b>                      <b>Teaching and Learning in Nursing</b>                      <b>3 CR</b></p> <p>Contact Hours: 3 + 0 Prerequisites: NS A618 and NS A619 and NS A620 and NS A621. Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Graduate standing; completion of course prerequisites or prior master's in nursing. Special Fees.</p> <p>Examines the conceptual and theoretical foundation of learning with an emphasis on selecting teaching methods in designing learner-centered classroom and clinical instruction. Explores the role and expected competencies of the nurse educator.</p>	<p><b>NS A661</b>                      <b>Family Nurse Practitioner II</b>                      <b>3/5 CR</b></p> <p>Contact Hours: 2 or 4 + 12 Prerequisites: NS A660 with minimum grade of B. Registration Restrictions: Enrollment in a graduate degree or certificate program in the School of Nursing. Current Alaska RN license; current CPR certification; individual malpractice insurance policy; current immunization per SON policy. Post-Master's Certificate students may take this course concurrently with NS A660. Special Fees.</p> <p>Special Note: For Post-Master's Certificate students, licensure for advanced practice nurse in Alaska is required.</p> <p>Continuing preparation for expansion to primary care of all ages. Includes advanced history and physical assessment skills for pediatric and female clients of all ages with a focus on developing families. Clinical focus includes acquisition of skills and diagnostic evaluation method required for management of clients. Principal clinical experiences will be in the primary care of infants, children, adolescents, females of all ages, and child-bearing families with a focus on primary care of common diseases.</p>
<p><b>NS A641</b>                      <b>Curriculum Development and Evaluation</b>                      <b>3 CR</b></p> <p>Contact Hours: 3 + 0 Prerequisites: NS A618 and NS A619 and NS A620 and NS A621. Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Graduate standing; completion of prerequisites or prior master's degree in nursing. Special Fees.</p> <p>Examines history of higher education and nursing education in the United States. Assesses components of modern collegiate nursing curricula with consideration of internal and external factors that drive or impact the curriculum. Evaluates an existing curriculum and develops a course that fits within the context of an existing curriculum philosophy and conceptual framework and that contributes to the accomplishment of program outcomes.</p>	<p><b>NS A662</b>                      <b>Family Nurse Practitioner III</b>                      <b>5 CR</b></p> <p>Contact Hours: 2 + 12 Prerequisites: NS A661. Registration Restrictions: Admission to a graduate degree or certificate program in the School of Nursing. Current Alaska RN license; current CPR certification; current immunization per SON policy. Special Fees.</p> <p>Continued preparation for advanced nursing practice. Assessment, diagnosis, and treatment and/or referral of clients with disorders of the cardiovascular, endocrine, gastrointestinal, respiratory, musculoskeletal, integumentary, and neurological systems. Recognition and management of infections and acute and chronic diseases. Primary focus is on adults and those with chronic diseases.</p>
<p><b>NS A643</b>                      <b>Assessment and Evaluation in Nursing Education</b>                      <b>3 CR</b></p> <p>Contact Hours: 3 + 0 Prerequisites: NS A625 and NS A640 and NS A641. Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Graduate standing. Special Fees.</p> <p>Focuses on assessment and evaluation concepts, principles and evidence-based practices as a basis for planning learner-centered instruction, targeting learning outcomes and evaluating student achievement and instructional effectiveness. Examines a variety of classroom and clinical assessment methods and tools with an emphasis on their use, development and interpretation in course-level assessment.</p>	<p><b>NS A663</b>                      <b>Family Nurse Practitioner IV</b>                      <b>2-6 CR</b></p> <p>Contact Hours: 0 or 2 + 8-16 Prerequisites: NS A662. Registration Restrictions: Admission to a graduate degree or certificate program in the School of Nursing. Current Alaska RN license; current CPR certification; current immunization per SON policy. Special Fees.</p> <p>Summative preparation for advanced nursing practice. Assessment, diagnosis, and treatment or referral of clients with disorders of the cardiovascular, endocrine, gastrointestinal, respiratory, musculoskeletal, integumentary, and neurological systems. Prevention, recognition and management of infections and acute and chronic diseases, and care throughout the developmental stages of life. Includes care of clients throughout the lifespan.</p>

**NS A670 Advanced Psychiatric/Mental Health Nursing I 5 CR**

Contact Hours: 4 + 4

Prerequisites: NS A601 and NS A602.

Registration Restrictions: Admission to graduate degree or certificate program in the School of Nursing. Current Alaska RN license; current CPR certification; current immunization per SON policy.

Special Fees.

Introduces the psychiatric-mental health nurse practitioner role and entry-level competencies. Emphasizes interpersonal and diagnostic processes utilized in assessing and managing the care of individuals across the lifespan who are at risk of, or are experiencing, mental health problems and psychiatric disorders. Evidence regarding the clinical basis and effectiveness of current treatment modalities is examined. Application focuses on developing counseling skills that foster therapeutic alliances and promote mental health and functional well-being.

**NS A671 Advanced Psychiatric/Mental Health Nursing II 5 CR**

Contact Hours: 3 + 8

Prerequisites: NS A670.

Registration Restrictions: Enrollment in a graduate degree or certificate program in the School of Nursing. Knowledge of basic anatomy/physiology and pharmacology; current Alaska RN license; current CPR certification; individual malpractice insurance policy; current immunization per SON policy.

Special Fees.

Special Note: For Post Master's Certificate students, licensure for advanced practice nurse in Alaska is required.

Focuses on the theory, research, and clinical literature related to mental health assessment, intervention, and evaluation in families and groups. A social system perspective is used to examine intrinsic and extrinsic factors influencing the development of adaptive and maladaptive behavioral, emotional, and functional patterns in groups and families. Various theoretical approaches to therapeutic assessment and intervention with families and groups are explored through the counselor/therapist role, initially using case analysis and therapy simulations, followed by application in a clinical setting. Issues impacting the mental health of families are addressed.

**NS A672 Advanced Psychiatric/Mental Health Nursing III 5 CR**

Contact Hours: 2 + 12

Prerequisites: NS A671.

Registration Restrictions: Enrollment in a graduate degree or certificate program in the School of Nursing. Knowledge of basic anatomy/physiology and pharmacology. Current Alaska RN license; current CPR certification; individual malpractice policy; current immunization per SON policy.

Special Fees.

Introduces the consultant/liaison role of advanced practice psychiatric-mental health nursing, with an emphasis on consultation in organizational settings. Consultation models are examined and linked to essential skill competencies. Historical and contemporary trends and organizational approaches to delivering population-focused mental health services are analyzed. Current fiscal and social policy statements and research findings are evaluated in terms of their implications for planning, implementing, and evaluating services for at-risk and culturally diverse populations.

**NS A674 Advanced Psychiatric/Mental Health Nursing IV 5 CR**

Contact Hours: 1 + 16

Prerequisites: NS A601 and NS A602 and NS A610 and NS A672.

Registration Restrictions: Enrollment in a graduate degree or certificate program in the School of Nursing. Knowledge of basic anatomy/physiology and pharmacology. Current Alaska RN license; current CPR certification; individual malpractice insurance policy; current immunization per SON policy.

Special Fees.

Special Note: For Post-Master's Certificate students, licensure for advanced practice nurse in Alaska is required.

Emphasizes continuing role development and refinement of advanced practice competencies. An intensive clinical practicum provides the context for the integration synthesis, and application of essential competencies to the care of a population (individuals, groups, families, and aggregates) at risk of or experiencing a mental disorder or impairment. Class will be developed to provide individual and group supervision and examining opportunities, challenges and issues related to the advanced practice role.

**NS A681 Analysis of Health Services 3 CR**

Contact Hours: 3 + 0

Registration Restrictions: Baccalaureate degree or senior level (last semester) in baccalaureate program.

Special Fees.

Special Note: Offered as Demand Warrants.

Comprehensive overview of the evolution and major components of the health service system in the United States. System performance, directions being taken by major providers, characteristics of resources (financial, personnel, and technological), are discussed. Dimensions of policy making in health are also discussed.

**NS A696 Individual Project 2 CR**

Contact Hours: 1 + 3

Prerequisites: NS A618 and NS A619 and NS A620 and NS A621 and NS A625.

Level Restriction: Must be Graduate - UAA level.

Registration Restrictions: Enrollment in graduate nursing program.

Special Fees.

Special Note: Must be taken twice for credit for the Master of Science in Nursing degree.

Develops and implements a theory-based project in a clinical, educational or administrative setting. Identifies a topic of current concern within the specialty, reviews and synthesizes the relevant literature, examines and addresses a practice issue.

**NS A699 Thesis 2 CR**

Contact Hours: 1 + 3

Prerequisites: NS A618 and NS A619 and NS A620 and NS A621 and NS A625.

Level Restriction: Must be Graduate - UAA level.

Registration Restrictions: Enrollment in graduate nursing program.

Grade Mode: Pass/No Pass.

Special Fees.

Special Note: Must be taken twice for credit for the Master of Science in Nursing degree.

Develops, refines and implements a research proposal under the guidance of the thesis advisor and in conjunction with the thesis committee.

**NUPN - Nursing - Practical Nursing**

*Offered through the College of Health & Social Welfare  
Professional Studies Building (PSB), Room 103, 786-4665  
<http://nursing.uaa.alaska.edu>*

**NUPN A101 Fundamental Concepts and Skills for Practical Nursing 7 CR**

Contact Hours: 7 + 0

Prerequisites: (NUPN A105 or concurrent enrollment).

Registration Restrictions: Admission to the Practical Nursing Certificate Program.

Corequisite: NUPN A101L.

Introduction of fundamental concepts of basic human needs, health-illness continuum, nursing process, therapeutic communication, and basic drug and diet therapy. Holistic care that meets the unique physical, mental, emotional, and spiritual health needs of the client and family is emphasized. Development of critical thinking skills and conscientious accountability for working in the practical nurse role within the health care system is emphasized.

**NUPN A101L Fundamental Concepts and Skills for Practical Nursing Lab 5 CR**

Contact Hours: 0 + 15

Prerequisites: (NUPN A105 or concurrent enrollment).

Registration Restrictions: Admission to the Practical Nursing Certificate Program.

Corequisite: NUPN A101.

Grade Mode: Pass/No Pass.

Special Fees.

Application of knowledge gained in NUPN A101 to the acquisition of nursing skills in the nursing skills laboratory and to the care of clients in the clinical practice setting.

**NUPN A105 Human Anatomy and Function 3 CR**

Contact Hours: 3 + 0

Registration Restrictions: Admission to the Practical Nursing Certificate Program.

Corequisite: NUPN A101 and NUPN A101L.

Special Fees.

Anatomy and Function of organs and systems within the human body. Students learn the basic structure and function of the human body. Students also learn derivation, application, and integration of appropriate terminology to anatomy, physiology, and pathophysiology. Provides a foundation for practical nurse clinical practice.

**NUPN A110 Adult Medical-Surgical Nursing for Practical Nurses 5 CR**

Contact Hours: 5 + 0

Prerequisites: NUPN A101 with minimum grade of C and NUPN A105 with minimum grade of C and NUPN A101L with minimum grade of P.

Registration Restrictions: Admission to the Practical Nursing Certificate Program.

Corequisite: NUPN A110L and NUPN A115.

Introduction to nursing care of the ill adult, using the nursing process as a unifying framework. Pathophysiology of common disorders, treatment options, including drug therapy and nursing care approaches are presented.

## Course Descriptions

### NUPN A110L      **Adult Medical-Surgical Nursing for Practical Nurses Lab**      3 CR

Contact Hours: 0 + 9

Prerequisites: NUPN A101 with minimum grade of C and NUPN A105 with minimum grade of C and NUPN A101L with minimum grade of P.

Registration Restrictions: Admission to the Practical Nursing Certificate Program.

Corequisite: NUPN A110 and NUPN A115.

Grade Mode: Pass/No Pass.

Special Fees.

Application of knowledge gained in NUPN A110 to the acquisition of more advanced nursing skills and techniques for the care of adults experiencing medical-surgical illnesses.

### NUPN A112      **Mother-Baby Nursing for Practical Nurses**      3 CR

Contact Hours: 3 + 0

Prerequisites: NUPN A101 with minimum grade of C and NUPN A105 with minimum grade of C and NUPN A101L with minimum grade of P.

Registration Restrictions: Admission to the Practical Nursing Certificate Program.

Corequisite: NUPN A112L.

Normal care during pregnancy, including prenatal and postpartum care, fundamental principles of labor and delivery and nursing care of the mother and newborn. The role of the practical nurse in teaching and health promotion to impact the health environment of the newborn through its early development is discussed.

### NUPN A112L      **Mother-Baby Nursing for Practical Nurses Lab**      2 CR

Contact Hours: 0 + 6

Prerequisites: NUPN A101 with minimum grade of C and NUPN A105 with minimum grade of C and NUPN A101L with minimum grade of P.

Registration Restrictions: Admission to the Practical Nursing Certificate Program.

Corequisite: NUPN A112.

Grade Mode: Pass/No Pass.

Special Fees.

Application of knowledge gained in NUPN A112 toward the acquisition of nursing skills for the care of childbearing women and newborn infants.

### NUPN A113      **Nursing of Children for Practical Nurses**      3 CR

Contact Hours: 3 + 0

Prerequisites: NUPN A101 with minimum grade of C and NUPN A105 with minimum grade of C and NUPN A101L with minimum grade of P.

Registration Restrictions: Admission to the Practical Nursing Certificate Program.

Corequisite: NUPN A113L.

Application of nursing care knowledge, skills, and processes to infants, children, adolescents, and families experiencing illness. Includes concepts and characteristics of growth and cognitive and physical development. The role of play and the impact of events and actions on development of a child's self-worth and caregiver teaching to prevent accidents and promote health are emphasized. Major health problems associated with each stage of growth and development and concepts in the care of the chronically ill and dying child are presented.

### NUPN A113L      **Nursing of Children for Practical Nurses Lab**      2 CR

Contact Hours: 0 + 6

Prerequisites: NUPN A101 with minimum grade of C and NUPN A105 with minimum grade of C and NUPN A101L with minimum grade of P.

Registration Restrictions: Admission to the Practical Nursing Certificate Program.

Corequisite: NUPN A113.

Grade Mode: Pass/No Pass.

Special Fees.

Application of knowledge gained in NUPN A113 to the acquisition of nursing skills for the care of infants, children, and adolescents.

### NUPN A115      **Concepts in Mental Health for Practical Nurses**      1 CR

Contact Hours: 1 + 0

Prerequisites: NUPN A101 with minimum grade of C and NUPN A105 with minimum grade of C and NUPN A101L with minimum grade of P.

Registration Restrictions: Admission to the Practical Nursing Certificate Program.

Corequisite: NUPN A110 and NUPN A110L.

Special Fees.

Basic theory and principles of mental health nursing care for clients experiencing psychiatric disorders or situational crisis. Includes identification of resources for mental health care and discussion of the inter-relationship between disorders of physical and mental health across the life span. The role of the practical nurse in mental illness is explored.

### NUPN A116      **Role Transition to LPN**      1 CR

Contact Hours: 1 + 0

Prerequisites: NUPN A110 with minimum grade of C and NUPN A112 with minimum grade of C and NUPN A113 with minimum grade of C and NUPN A115 with minimum grade of C and NUPN A110L with minimum grade of P and NUPN A112L with minimum grade of P and NUPN A113L with minimum grade of P.

Registration Restrictions: Admission to the Practical Nursing Certificate Program.

Corequisite: NUPN A118L.

Grade Mode: Pass/No Pass.

Special Fees.

Exploration of attitudes and expectations of the LPN and current and future trends in nursing, including licensure, scope of practice, legal and ethical issues. Emphasis is on the need to work as a member of the health care team and on the responsibility of the practical nurse to engage in life-long learning. Designed to prepare the soon-to-graduate practical nurse to integrate concepts, knowledge, and skills into a coherent whole ready to assume the beginning practical nurse role in the employment setting.

### NUPN A118L      **Integrated Clinical Practicum for Practical Nurses**      2 CR

Contact Hours: 2 + 0

Prerequisites: NUPN A110 with minimum grade of C and NUPN A112 with minimum grade of C and NUPN A113 with minimum grade of C and NUPN A115 with minimum grade of C and NUPN A110L with minimum grade of P and NUPN A112L with minimum grade of P and NUPN A113L with minimum grade of P.

Registration Restrictions: Admission to Practical Nursing Certificate Program.

Corequisite: NUPN A116.

Grade Mode: Pass/No Pass.

Special Fees.

Concentrated clinical work to facilitate the transition of the graduating practical nurse to the full practical nurse role.

## NURS - Nursing

*Offered through the College of Health & Social Welfare  
Professional Studies Building (PSB), Room 110, 786-4582  
<http://nursing.uaa.alaska.edu>*

### NURS A101      **Introduction to Nursing**      2 CR

Contact Hours: 2 + 0

Special Fees.

Provides an introduction to the nursing profession. Explores nursing history, current issues, roles and functions with special emphasis on communication skills and use of the nursing process as a method to provide systematic, holistic care for health needs of patients. Introduces the health-illness continuum and Maslow's Hierarchy of Needs as a foundation for prioritizing patient needs and nursing care.

### NURS A120      **Nursing Fundamentals**      3 CR

Contact Hours: 3 + 0

Prerequisites: (BIOL A111 with minimum grade of C or concurrent enrollment) and (ENGL A111 with minimum grade of C or concurrent enrollment) and (PSY A150 with minimum grade of C or concurrent enrollment).

Major Restriction: Must be Nursing major.

Registration Restrictions: Acceptance to first semester of Associate of Applied

Science Nursing Program.

Corequisite: NURS A120L.

Focuses on foundational nursing interventions principles and skills. Explores and utilizes nursing process as a method to identify and meet basic nursing care needs. Examines human responses in the healthy state and introduces concepts related to health disruptions. Emphasizes assessment based on developmental and cultural influences and prioritization of needs and interventions according to Maslow's Hierarchy of Needs.



<p><b>NURS A120L      Nursing Fundamentals Laboratory      4 CR</b>            Contact Hours: 0 + 12            Prerequisites: (BIOL A111 with minimum grade of C or concurrent enrollment) and (ENGL A111 with minimum grade of C or concurrent enrollment) and (PSY A150 with minimum grade of C or concurrent enrollment).            Major Restriction: Must be Nursing major.            Registration Restrictions: Acceptance to Associate of Applied Science Nursing Program.            Corequisite: NURS A120.            Grade Mode: Pass/No Pass.            Special Fees.</p>	<p><b>NURS A180      Basic Nursing Pharmacology      3 CR</b>            Contact Hours: 3 + 0            Prerequisites: BIOL A111 with minimum grade of C and (BIOL A112 with minimum grade of C or concurrent enrollment) and (BIOL A240 with minimum grade of C or concurrent enrollment) and ENGL A111 with minimum grade of C and NURS A120 with minimum grade of C and NURS A120L with minimum grade of C and PSY A150 with minimum grade of C.            Major Restriction: Must be Nursing major.            Registration Restrictions: Current admission to second semester of Associate of Applied Science Nursing Program.            Corequisite: NURS A125 and NURS A125L.            Special Fees.</p>
<p>Students practice and develop nursing interventions and skills utilizing fundamental nursing principles from NURS A120. Nursing process is applied in campus lab and clinical settings as the method for identifying individual health needs and prioritizing needs and nursing care according to Maslow's Hierarchy of Needs. Students assess, diagnose, plan, implement and evaluate nursing care with emphasis on developmentally appropriate and culturally sensitive nursing intervention. Focus is on predicted responses during a healthy state as well as beginning concepts related to health disruptions, and assisting patients toward health on the health-illness continuum.</p>	<p>Provides an introduction to drug therapy with an emphasis on basic pharmacology principles, drug classifications and actions, correct dosages, methods of administration, and evaluation of patient responses across the lifespan. Nursing process is used to determine appropriate pharmacologic intervention and Maslow's Hierarchy of Needs is applied to identify priorities for care of patients receiving medications.</p>
<p><b>NURS A125      Adult Nursing I      3 CR</b>            Contact Hours: 3 + 0            Prerequisites: BIOL A111 with minimum grade of C and (BIOL A112 with minimum grade of C or concurrent enrollment) and (BIOL A240 with minimum grade of C or concurrent enrollment) and ENGL A111 with minimum grade of C and NURS A120 with minimum grade of C and NURS A120L with minimum grade of P and PSY A150 with minimum grade of C.            Major Restriction: Must be Nursing major.            Registration Restrictions: Current admission to second semester AAS nursing program.            Corequisite: NURS A125L and NURS A180.</p>	<p><b>NURS A220      Perinatal Nursing      3 CR</b>            Contact Hours: 3 + 0            Prerequisites: BIOL A112 with minimum grade of C and BIOL A240 with minimum grade of C and (DN A203 with minimum grade of C or concurrent enrollment) and [(ENGL A211 with minimum grade of C or concurrent enrollment) or (ENGL A212 with minimum grade of C or concurrent enrollment) or (ENGL A213 with minimum grade of C or concurrent enrollment)] and NURS A125 with minimum grade of C and NURS A125L with minimum grade of C and NURS A180 with minimum grade of C.            Major Restriction: Must be Nursing major.            Registration Restrictions: Current admission to third semester AAS nursing program. Completion of one social science elective with a minimum grade of C or concurrent enrollment.            Corequisite: NURS A220L, NURS A221, NURS A222 and NURS A222L.</p>
<p>Focuses on use of nursing process in providing care for adult patients experiencing chronic health disruptions that respond predictably to established nursing and healthcare regimens. Emphasizes the patho-physiologic basis of disease, treatment options and nursing care for patients based on stages of adult development, and prioritized using Maslow's Hierarchy of Needs. Includes specific focus on health needs and care of the aging adult.</p>	<p>Focuses on use of nursing process to provide healthcare for the childbearing woman, newborn, and family along the health-illness continuum. Content ranges from normal, low-risk perinatal care through nursing care for selected high-risk perinatal complications. Includes antepartum, intrapartum, postpartum, and low-risk neonatal nursing care with emphasis on developmental and cultural influences upon the health needs of the childbearing family and prioritizing using Maslow's Hierarchy of Needs.</p>
<p><b>NURS A125L      Adult Nursing I Laboratory      4 CR</b>            Contact Hours: 0 + 12            Prerequisites: BIOL A111 with minimum grade of C and (BIOL A112 with minimum grade of C or concurrent enrollment) and (BIOL A240 with minimum grade of C or concurrent enrollment) and ENGL A111 with minimum grade of C and NURS A120 with minimum grade of C and NURS A120L with minimum grade of P and PSY A150 with minimum grade of C.            Major Restriction: Must be Nursing major.            Registration Restrictions: Current admission to second semester AAS nursing program.            Corequisite: NURS A125 and NURS A180.            Grade Mode: Pass/No Pass.            Special Fees.</p>	<p><b>NURS A220L      Perinatal Nursing Laboratory      1 CR</b>            Contact Hours: 0 + 3            Prerequisites: BIOL A112 with minimum grade of C and BIOL A240 with minimum grade of C and (DN A203 with minimum grade of C or concurrent enrollment) and [(ENGL A211 with minimum grade of C or concurrent enrollment) or (ENGL A212 with minimum grade of C or concurrent enrollment) or (ENGL A213 with minimum grade of C or concurrent enrollment)] and NURS A125 with minimum grade of C and NURS A125L with minimum grade of C and NURS A180 with minimum grade of C.            Major Restriction: Must be Nursing major.            Registration Restrictions: Current admission as third semester AAS Nursing student. Completion of one social science elective with a minimum grade of C or concurrent enrollment.            Corequisite: NURS A220, NURS A221, NURS A222 and NURS A222L.            Grade Mode: Pass/No Pass.            Special Fees.</p>
<p>Lab and clinical practicum for NURS A125. Focuses on use of patho-physiologic concepts, treatment options, and nursing process in caring for hospitalized adults with common health disruptions requiring alterations in lifestyle. Emphasizes nursing care of adults with increasingly complex health needs in acute care settings. Incorporates development influences, patient teaching and discharge planning, and prioritizing using Maslow's Hierarchy of Needs.</p>	<p>Provides clinical experiences to reinforce learning in NURS A220. Students use nursing process as they provide care for the childbearing women, newborn, and family along the health-illness continuum and prioritize using Maslow's Hierarchy of Needs. Clinical experiences occur in selected acute and ambulatory perinatal care settings with focus on providing developmentally and culturally sensitive nursing care for low-risk and selected high-risk perinatal patients and their families. Students are expected to demonstrate competence in performance of psychomotor and critical thinking skills while providing care for two or more patients, including discharge planning.</p>
<p><b>NURS A127      LPN to AAS Nursing Bridge      1 CR</b>            Contact Hours: .7 + 1            Prerequisites: BIOL A111 with minimum grade of C and BIOL A112 with minimum grade of C and BIOL A240 with minimum grade of C and ENGL A111 with minimum grade of C and PSY A150 with minimum grade of C.            Registration Restrictions: Current Alaska LPN license, graduate of AVTECH LPN program, and admission to UAA Pre-nursing major.            Special Fees.</p> <p>Provides the LPN with an introduction to the role of the RN. Specific focus is on the use of critical thinking in providing nursing care at the RN level. Emphasis on and practice with analyzing assessment data, developing and prioritizing nursing diagnoses, using therapeutic communication, and developing and implementing patient teaching.</p>	

## Course Descriptions

**NURS A221      Advanced Parenteral Therapy Laboratory      1 CR**  
Contact Hours: 0 + 3  
Prerequisites: BIOL A112 with minimum grade of C and BIOL A240 with minimum grade of C and (DN A203 with minimum grade of C or concurrent enrollment) and [(ENGL A211 with minimum grade of C or concurrent enrollment) or (ENGL A212 with minimum grade of C or concurrent enrollment) or (ENGL A213 with minimum grade of C or concurrent enrollment)] and NURS A125 with minimum grade of C and NURS A125L with minimum grade of C and NURS A180 with minimum grade of C.  
Major Restriction: Must be Nursing major.  
Registration Restrictions: Current admission to third semester AAS nursing program. Completion of one social science elective with a minimum grade of C or concurrent enrollment.  
Corequisite: NURS A220, NURS A220L, NURS A222 and NURS A222L.  
Grade Mode: Pass/No Pass.  
Special Fees.

Lab-based course where students apply nursing process and knowledge of intravenous (IV) therapy, nutritional support, and pain management learned in previous nursing courses, to advanced concepts in the management of therapeutic interventions administered via the parenteral route. Emphasizes theoretical content and psychomotor skills related to advanced intravenous and parenteral therapies along the health-illness continuum, across the lifespan and applicable in multiple healthcare settings. Utilizes presentation, seminar, demonstration, supervised practice, return demonstration, and directed self-learning.

**NURS A222      Pediatric Nursing      3 CR**  
Contact Hours: 3 + 0  
Prerequisites: BIOL A112 with minimum grade of C and BIOL A240 with minimum grade of C and (DN A203 with minimum grade of C or concurrent enrollment) and [(ENGL A211 with minimum grade of C or concurrent enrollment) or (ENGL A212 with minimum grade of C or concurrent enrollment) or (ENGL A213 with minimum grade of C or concurrent enrollment)] and NURS A125 with minimum grade of C and NURS A125L with minimum grade of C and NURS A180 with minimum grade of C.  
Major Restriction: Must be Nursing major.  
Registration Restrictions: Current admission to third semester AAS nursing program. Completion of one social science elective with a minimum grade of C or concurrent enrollment.  
Corequisite: NURS A220, NURS A220L, NURS A221 and NURS A222L.

Focuses on the use of the critical thinking and nursing process in providing developmentally and culturally appropriate nursing care for children, along with their families, from birth through adolescence. Emphasizes normal growth and development as well as acute and chronic alterations in health and development along the health-illness continuum and prioritized according to Maslow's Hierarchy of Needs.

**NURS A222L      Pediatric Nursing Laboratory      1 CR**  
Contact Hours: 0 + 3  
Prerequisites: BIOL A112 with minimum grade of C and BIOL A240 with minimum grade of C and (DN A203 with minimum grade of C or concurrent enrollment) and [(ENGL A211 with minimum grade of C or concurrent enrollment) or (ENGL A212 with minimum grade of C or concurrent enrollment) or (ENGL A213 with minimum grade of C or concurrent enrollment)] and NURS A125 with minimum grade of C and NURS A125L with minimum grade of C and NURS A180 with minimum grade of C.  
Major Restriction: Must be Nursing major.  
Registration Restrictions: Current admission to third semester AAS Nursing Program. Completion of one social science elective with a minimum grade of C or concurrent enrollment.  
Corequisite: NURS A220, NURS A220L, NURS A221 and NURS A222.  
Grade Mode: Pass/No Pass.  
Special Fees.

Provides lab/clinical experiences to reinforce learning in NURS A222. Focuses on use of nursing process in providing developmentally and culturally appropriate nursing care for children and their families along the health-illness continuum and prioritized using Maslow's Hierarchy of Needs. Clinical experiences occur in selected acute and ambulatory pediatric care settings as well as in selected well-child settings. Students are expected to demonstrate competence in the performance of psychomotor skills as well as critical thinking in providing nursing care for children and families from birth through adolescence.

**NURS A225      Adult Nursing II      3 CR**  
Contact Hours: 3 + 0  
Prerequisites: NURS A220 with minimum grade of C and NURS A220L with minimum grade of C and NURS A221 with minimum grade of C and NURS A222 with minimum grade of C and NURS A222L with minimum grade of C.  
Major Restriction: Must be Nursing major.  
Registration Restrictions: Current admission to fourth semester AAS Nursing Program. Complete one oral communication elective and one GER elective with minimum grade of C (may be concurrent). Complete one social science elective with minimum grade of C (prerequisite).  
Corequisite: NURS A225L, NURS A250, NURS A250L and NURS A255.

Focuses on nursing process and care of the adult medical-surgical patient with acute, complex and life-threatening disorders along the health-illness continuum and based on adult developmental considerations. Emphasis continues on the prioritization of healthcare needs and nursing interventions utilizing critical thinking and Maslow's Hierarchy of Needs.

**NURS A225L      Adult Nursing II Laboratory      3 CR**  
Contact Hours: 0 + 9  
Prerequisites: NURS A220 with minimum grade of C and NURS A220L with minimum grade of C and NURS A221 with minimum grade of C and NURS A222 with minimum grade of C and NURS A222L with minimum grade of C.  
Major Restriction: Must be Nursing major.  
Registration Restrictions: Current admission to fourth semester AAS Nursing Program. Complete one oral communication elective and one GER elective with minimum grade of C (may be concurrent). Complete one social science elective with minimum grade of C (prerequisite).  
Corequisite: NURS A225, NURS A250, NURS A250L and NURS A255.  
Grade Mode: Pass/No Pass.  
Special Fees.

Provides clinical learning experiences in care of the adult medical-surgical patient with acute, complex and life-threatening disorders along the health-illness continuum. Includes experiences in delegation and management of nursing care for small groups of patients.

**NURS A250      Psychiatric Nursing      3 CR**  
Contact Hours: 2 + 2  
Prerequisites: DN A203 with minimum grade of C and [(ENGL A211 with minimum grade of C or ENGL A212 with minimum grade of C or ENGL A213 with minimum grade of C) and NURS A220 with minimum grade of C and NURS A220L with minimum grade of P and NURS A221 with minimum grade of C and NURS A222 with minimum grade of C and NURS A222L with minimum grade of P].  
Major Restriction: Must be Nursing major.  
Registration Restrictions: Current admission to fourth semester of AAS nursing program. Completion of one social science elective with a minimum grade of C, plus completion of one oral communication course and one additional GER course with minimum grade of C or concurrent enrollment.  
Corequisite: NURS A225, NURS A225L, NURS A250L and NURS A255.

Focuses on the psychodynamics of the major mental illnesses and principles of psychiatric nursing across the lifespan. Seminar emphasizes the application of nursing process and Maslow's Hierarchy of Needs along with adapting communication strategies to facilitate therapeutic intervention with patients who are experiencing mental health needs across the health-illness continuum and at varying developmental stages.

**NURS A250L      Psychiatric Nursing Laboratory      1 CR**  
Contact Hours: 0 + 3  
Prerequisites: DN A203 with minimum grade of C and [(ENGL A211 with minimum grade of C or ENGL A212 with minimum grade of C or ENGL A213 with minimum grade of C) and NURS A220 with minimum grade of C and NURS A220L with minimum grade of P and NURS A221 with minimum grade of C and NURS A222 with minimum grade of C and NURS A222L with minimum grade of P].  
Major Restriction: Must be Nursing major.  
Registration Restrictions: Current admission to fourth semester of AAS nursing program. Completion of one social science elective with a minimum grade of C. Completion of one oral communication course and one additional GER course with minimum grade of C or concurrent enrollment.  
Corequisite: NURS A225, NURS A225L, NURS A250 and NURS A255.  
Grade Mode: Pass/No Pass.  
Special Fees.

Clinical practicum concurrent with NURS A250. Provides clinical experiences in care of the inpatient and outpatient psychiatric patients. Focuses on the application of nursing process and adapting communication strategies to facilitate therapeutic interventions with patients who are experiencing mental health needs across the health-illness continuum and at varying developmental stages. Maslow's Hierarchy of Needs is used in prioritizing nursing care.

**NURS A255 Staff Nurse: Legal, Ethical, and Organizational Issues 1 CR**

Contact Hours: 2 + 0

Prerequisites: NURS A220 with minimum grade of C and NURS A220L with minimum grade of C and NURS A221 with minimum grade of C and NURS A222 with minimum grade of C and NURS A222L with minimum grade of C.

Major Restriction: Must be Nursing major.

Registration Restrictions: Current admission as fourth semester AAS Nursing student. Must have completed one oral communication elective and one GER elective (or be concurrently enrolled). Complete one social science elective as a prerequisite.

Corequisite: NURS A225, NURS A225L, NURS A250 and NURS A250L.

Special Fees.

Seminar course which examines the legal, ethical, and professional issues encountered in the practice of a registered nurse. Explores the role of the staff nurse within health care organizations. Examines professional nursing issues and knowledge necessary to function effectively in the staff nurse role and on health care teams. Includes legal limits and regulation of nursing practice along with trends in nursing.

**NURS A295 Intensive Clinical Practicum 2 CR**

Contact Hours: 4 + 64

Prerequisites: NURS A220 with minimum grade of C and NURS A220L with minimum grade of C and NURS A221 with minimum grade of C and NURS A222 with minimum grade of C and NURS A222L with minimum grade of C.

Registration Restrictions: Good physical health.

Grade Mode: Pass/No Pass.

Special Fees.

Special Note: Two-week duration. 32 hours per week with preceptor and 2 hours per week in seminar. Some lifting may be required.

Concentrated clinical work to familiarize graduating nurses with clinical registered nurse responsibilities.

## OSH - Occupational Safety & Health

*Offered through Kenai Peninsula College (KPC), Anchorage Extension Site (AES)*

*University Center (UC), Room 118, 3901 Old Seward Highway, Anchorage, Alaska 99503, 786-6421*

*www.kpc.alaska.edu*

**OSH A101 Introduction to Occupational Safety and Health 3 CR**

Contact Hours: 3 + 0

Introduces regulatory, consensus, environmental and industrial standards applicable to the occupational safety and health profession. Examines the role of the safety professional and the philosophy of safety and health in the workplace.

**OSH A108 Injury Prevention and Risk Management 4 CR**

Contact Hours: 3 + 2

Identifies safety, health management, and incident prevention in the workplace. Emphasizes materials handling, electrical and machine safety, first response to fire and medical emergencies, safety and health hazards, and accident prevention.

**OSH A111 Training Needs and Methods 3 CR**

Contact Hours: 3 + 0

Evaluates safety and health training needs in the workplace. Emphasizes regulatory compliance.

**OSH A112 Introduction to Injury Epidemiology 3 CR**

Contact Hours: 3 + 0

Prerequisites: MATH A105 and OSH A108.

Introduces the principles of epidemiology and how they pertain to injury prevention. Stresses the collection of data, principles of injury prevention, and data evaluation.

**OSH A120 Safety Program Management and Recordkeeping 3 CR**

Contact Hours: 3 + 0

Prerequisites: (OSH A101 or concurrent enrollment) and OSH A108.

Discusses the role of safety in business and government. Emphasizes the philosophy of safety and health efforts by management. Examines the role of the safety professional, the types of safety management systems utilized in the workplace, and the need for accurate recordkeeping.

**OSH A180 Introduction to Industrial Hygiene 4 CR**

Contact Hours: 4 + 0

Prerequisites: [(MATH A105 with minimum grade of C or concurrent enrollment) or (MATH A107 with minimum grade of C or concurrent enrollment) or (MATH A108 with minimum grade of C or concurrent enrollment) or (MATH A109 with minimum grade of C or concurrent enrollment)] and OSH A101 with minimum grade of C.

Identifies acute and chronic health effects of exposures to chemical, physical, and biological agents in the workplace. Emphasizes types of exposures and biological effects, exposure guidelines, and basic workplace monitoring.

**OSH A201 Workplace Injury and Incident Evaluations 4 CR**

Contact Hours: 4 + 0

Prerequisites: OSH A108.

Assesses and evaluates workplace hazards. Investigates worker complaints and actual health and safety incidents. Includes practical applications and basic accident investigation.

**OSH A211 Safety Program Assessment, Development and Implementation 4 CR**

Contact Hours: 3 + 2

Prerequisites: OSH A101 with minimum grade of C and OSH A120 with minimum grade of C.

Examines the role of safety programs in the workplace. Emphasizes safety program assessment, design, development, implementation and evaluation.

**OSH A230 Principles of Ergonomics 3 CR**

Contact Hours: 2 + 2

Prerequisites: BIOL A100 and OSH A201.

Examines workplace ergonomics, emphasizing types and sources of physiological stressors and their mitigation.

**OSH A240 Workplace Monitoring: Instrumentation and Calibration 3 CR**

Contact Hours: 2 + 2

Prerequisites: [MATH A105 with minimum grade of C or MATH A107 with minimum grade of C or MATH A108 with minimum grade of C or MATH A109 with minimum grade of C] and OSH A180 with minimum grade of C.

Examines the equipment used in performing measurements of environmental factors in the workplace, including noise, lighting, vibration, chemicals and heat stress. Emphasizes equipment types, applications and calibration. Evaluates environmental factors found in Alaskan workplaces.

**OSH A250 Hazardous Material Operation 3 CR**

Contact Hours: 2 + 2

Prerequisites: OSH A180.

Identifies the policies, procedures and equipment needed to deal with hazardous material. Emphasizes the types of hazards, planning, organization, and training needed to work safely with hazardous material.

**OSH A290 Selected Topics in Occupational Safety and Health 3 CR**

Contact Hours: 3 + 0

Prerequisites: OSH A101.

Special Note: May be repeated with change of subtitle.

Covers current topics not normally taught on a scheduled basis in OSH. Course content determined by industry needs.

## PADM - Public Administration

*Offered through the College of Business & Public Policy*

*Edward & Cathryn Rasmuson Hall (RH), Room 304, 786-4171*

*www.cbpp.uaa.alaska.edu/pubadmin.asp*

Students taking any ACCT, BA, CIS, ECON, LGOP, LOG or PADM course will be charged a single lab fee of \$25 for the semester. Applies to Elmendorf Air Force Base or Fort Richardson classes only when specifically noted on UAOnline. Does not apply to Chugiak-Eagle River classes.

**PADM A601 Introduction to Public Administration 3 CR**

Contact Hours: 3 + 0

Special Note: Offered Fall and Spring Semesters.

Introduction to the field of public administration. Deals with the scope, nature, history, current context, and basic tools in the study of public administration. Topics covered include social, economic, and political environments of public administration, and comparative administration, bureaucratic politics, power and authority, law, ethics and administration, basic models, and comparative administration.

## Course Descriptions

<b>PADM A602</b>	<b>Seminar in Public Management</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Graduate standing Focuses on tools and insights that support individual growth in ethical, effective, and efficient management abilities. Students are offered the opportunity for personal development in the context of understanding their own strengths and challenges as a manager in a diverse workforce.		
<b>PADM A603</b>	<b>Management Analysis</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Faculty permission. Special Note: Offered Fall Semesters. Introduction to organizational and systems analysis, systems theory, information systems, procedure analysis, management planning, and management problem solving.		
<b>PADM A604</b>	<b>Research Methods in Administration</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Introductory course in statistics. Special Note: Offered Spring Semesters. Methods and techniques of empirical research. Scientific method, design of research, data collection and analysis methods, survey sampling, and statistical analysis including use of computers in data analysis.		
<b>PADM A606</b>	<b>The Policymaking Process</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Graduate standing. Examines the skills, protocols and insights required to understand, and participate in the policymaking process. Offers a historical, theoretical, and practical framework for policymaking in a democratic society. Examines the internal and external forces that influence policy development and addresses practical and ethical decision-making considerations.		
<b>PADM A610</b>	<b>Organizational Theory and Behavior</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Graduate standing. Focuses on organizational theories and management approaches in the workplace. Examines theories of organizational, administrative and workplace behaviors, and ethics. Presents an in-depth study of organized behavior including concepts of leadership style, authority, collaboration and change.		
<b>PADM A618</b>	<b>Public Accountability and Ethics</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Graduate standing. Discusses the challenges of maintaining a responsive bureaucracy subject to democratic controls; and examines the implications of ethical standards and administrative due process of law. Also explores selected case studies in government and non-profit administration.		
<b>PADM A620</b>	<b>Internship in Public Administration/Policy</b>	<b>1-3 CR</b>
Contact Hours: 0 + 4-12 Registration Restrictions: Faculty permission. Special Note: Offered as Demand Warrants. Applied work experience in public administration or policy analysis. The course consists of the equivalent of three months of full-time work in an approved state, federal, local, or private agency, under the supervision of a senior agency employee in cooperation with a faculty advisor. An internship journal and a final internship report are required.		
<b>PADM A624</b>	<b>Human Resources Administration and Labor Relations</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Graduate standing. Presents a broad spectrum of practical skills, protocols, tools and regulations relating to human resource administration and labor relations in the public sector. Examines the legal requirements, historical context, and ethical underpinning of human resource management and labor relations.		
<b>PADM A628</b>	<b>Public Financial Management</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Graduate standing Introduction to the management and administration of public financial resources. The course focuses on finance issues currently faced by professionals who are responsible for administration of public funds.		

<b>PADM A632</b>	<b>Policy Analysis</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Faculty permission. PADM A604 recommended. Special Note: Offered as Demand Warrants. Quick methods for policy analysis, emphasizing analytic thinking to narrow and focus the decision problem, and quantitative and qualitative techniques to generate insight from information. Covers basic steps in the analytic process, and methods including legal research, decision analysis, and interpreting regressions. Exercises are from contemporary Alaska policy issues.		
<b>PADM A640</b>	<b>Dispute Resolution</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Graduate standing or permission of instructor Reviews literature and principles of dispute resolution. Focuses on negotiation, mediation, and consensus building as ways to resolve individual conflicts, group conflicts, and public disputes.		
<b>PADM A659</b>	<b>Public Administration Capstone</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Successful completion of the MPA comprehensive core program. Demonstrates PADM student ability to synthesize MPA graduate-level coursework through a final capstone project. Refines student knowledge and skills to identify a client, define a topic, conduct research, and prepare and present a policy report. Integrates research, critical thinking and communication skills as well as experiential and theoretical learning.		
<b>PADM A671</b>	<b>Selected Topics in Public Administration</b>	<b>1-3 CR</b>
Contact Hours: 1-3 + 0 Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Faculty permission or graduate standing Analyzes selected public administration issues. Topics will be announced in the published class listings.		

<b>PADM A688</b>	<b>Program Evaluation and Performance Measurement</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Graduate standing; one undergraduate or graduate statistics course; PADM A604 recommended Covers theory and practice of program evaluation and performance measurement. Course topics include: needs assessment techniques, an understanding of program logic models, research designs for program evaluation, qualitative and quantitative evaluation approaches, and cost benefit analysis. Development of performance measures, ethics and communicating findings are also covered.		

## PARL - Paralegal Studies

*Offered through the College of Health & Social Welfare Consortium Library (LIB), Room 213, 786-1810  
<http://justice.uaa.alaska.edu>*

<b>PARL A101</b>	<b>Introduction to Law</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Course Attributes: UAA GER Social Sciences Requirement. Survey course introduces legal processes in a democratic society. Emphasis on legal terminology, federal and state court systems, and judicial decision making. Introduction to basic concepts of contracts, torts, criminal law, family law, and administrative law. Includes introduction to skills for conducting basic legal analysis.		
<b>PARL A215</b>	<b>Paralegal Studies</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Foundation course for study of paralegal's role in the legal profession. Explores nature, scope and ethics of paralegal activities and the relationship of paralegals to lawyers and the public. Paralegal practice in Alaska and the use of law office technology is emphasized.		
<b>PARL A235</b>	<b>Factual Investigation and Interviewing</b>	<b>2 CR</b>
Contact Hours: 2 + 0 Prerequisites: PARL A101 and PARL A215. Special Note: Offered Spring Semesters. Study of the fundamentals of investigation. Scene investigation and recording, collection and preservation of physical evidence and scientific aids. Sources of information, interviews, follow-up and case preparation.		

<b>PARL A236</b>	<b>Ethics and Paralegals</b>	<b>1 CR</b>
Contact Hours: 1 + 0 Prerequisites: PARL A101 and PARL A215. Special Note: Offered Spring Semesters. Course deals systematically with nine canons of the American Bar Association as they address practical problems of legal assistants who work under the supervision of attorneys. Focus upon rules and opinions directed at the practitioners of law in Alaska. Discussion of regulation by bar associations and attorneys.		
<b>PARL A238</b>	<b>Civil Procedure</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: PARL A101. Special Note: Offered Spring Semesters. Introduction to procedural concepts of civil litigation with an emphasis on jurisdiction, venue, service of process, parties, pleading and discovery, trial processes, appellate review, and the common law doctrine of res judicata. Types of pleadings in civil actions, including complaints, answer and reply, joinder of parties and claims, class actions, discovery, motion practice, trial, and appeal.		
<b>PARL A340</b>	<b>Family Law</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: JUST A110 or PARL A101. Crosslisted with: JUST A340. Comprehensive study of federal and state statutes and judicial doctrines governing familial relationships. Emphasis on marriage, divorce, child custody, support, property rights, adoption, and child protection. The impact of the Indian Child Welfare Act in Alaska family law is explored.		
<b>PARL A352</b>	<b>Substantive Criminal Law</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: JUST A110 with minimum grade of C or PARL A101 with minimum grade of C. Crosslisted with: JUST A352. Study of elements, purposes, and functions of substantive criminal law. Includes casebook study of general law of crimes and defenses with concentration on Alaska cases and statutes in Alaska Criminal Code. Historical and philosophical concepts are covered.		
<b>PARL A354</b>	<b>Criminal Procedure</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: PARL A101 or JUST A110. Crosslisted with: JUST A354. Analyzes constitutional, statutory, and rules-based limits on law enforcement personnel and prosecutors in the United States and the tension between public order and individual liberty in the criminal justice system. Explores federal and Alaska case law on search and seizure, interrogations and confessions, identification, arrests and charging, right to counsel, right to jury, sentencing, and double jeopardy.		
<b>PARL A356</b>	<b>Legal Research</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: [PARL A101 with minimum grade of C and PARL A215 with minimum grade of C and ENGL A111 with minimum grade of B and [ENGL A211 with minimum grade of B or ENGL A212 with minimum grade of B or ENGL A213 with minimum grade of B or ENGL A214 with minimum grade of B or ENGL A311 with minimum grade of B or ENGL A312 with minimum grade of B or ENGL A313 with minimum grade of B or ENGL A414 with minimum grade of B] or ENGL A487 with minimum grade of B]. Special Fees. Intensive coverage of legal research tools and techniques, including: judicial, statutory, and regulatory authority; secondary legal authority; legal citation; electronic databases; and legal memoranda.		
<b>PARL A362</b>	<b>Commercial Law</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: PARL A101 with minimum grade of C. Commercial law constitutes a study of the paralegal's role in a commercial practice with emphasis on such topics as contracts, remedies, bankruptcy, business formation and organization.		
<b>PARL A375</b>	<b>Litigation</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: PARL A238. Registration Restrictions: Legal Research I recommended. Special Fees. Intensive study of range of paralegal tasks associated with matters in litigation, from conducting the initial client interview through perfecting an appeal and collecting a judgment. Includes extensive coverage of principles of evidence. Procedures for alternative dispute resolution are also addressed. Requires active student participation in preparing a hypothetical case for trial, and culminates in a student presentation of a mock trial. Individual production of a comprehensive litigation systems binder, comprising student-drafted checklists, forms, and practice tips, is required. Student participation is premised on a solid foundation in civil procedure and legal research.		

<b>PARL A456</b>	<b>Advanced Legal Analysis and Writing</b>	<b>4 CR</b>
Contact Hours: 3 + 3 Prerequisites: ENGL A111 with minimum grade of B and [ENGL A211 with minimum grade of B or ENGL A212 with minimum grade of B or ENGL A213 with minimum grade of B or ENGL A214 with minimum grade of B or ENGL A311 with minimum grade of B or ENGL A312 with minimum grade of B or ENGL A313 with minimum grade of B or ENGL A414 with minimum grade of B or ENGL A487 with minimum grade of B] and PARL A101 with minimum grade of C and PARL A356 with minimum grade of C. Special Fees. Extensive research and written work applying legal principles to assigned fact patterns. Develops students' ability to perform objective written evaluations of legal issues in legal memoranda as well as persuasive advocacy in formal briefs.		
<b>PARL A470</b>	<b>Law of Government Regulation</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: PARL A101. Administrative law and procedure in the context of federal, state and local agencies operating in Alaska.		

## PEP - Physical Education Professional

*Offered through the Community and Technical College  
Eugene Short Hall (ESH), Room 125, 786-4083  
[www.uaa.alaska.edu/ctc/programs/hper](http://www.uaa.alaska.edu/ctc/programs/hper)*

<b>PEP A103</b>	<b>SCUBA</b>	<b>2 CR</b>
Contact Hours: 1.5 + 1 Special Fees. Special Note: Students may need to pay a dive equipment fee as well as rent or purchase additional gear for practical sessions. Course meets Professional Association of Diving Instructors (PADI) and National Association of Underwater Instructors (NAUI) standards. Certification fees are not included in course fees. Introduces skills for open water snorkeling and SCUBA diving. Emphasizes selection and use of specialized equipment, hyperbaric theory, proper planning, diving rescue skills, use of recreational dive tables and first-aid specific to the activity. Heavy emphasis placed on hazard assessment and safety issues.		
<b>PEP A110</b>	<b>Remote First Aid</b>	<b>1 CR</b>
Contact Hours: 0.5 + 1 Special Fees. Special Note: Wilderness First Aid and Adult CPR certifications provided upon successful completion of course. Introduces knowledge and skills necessary to deal with accidents and injuries when 911 is not readily available. Covers assessment and management of the scene, assessment and management of life-threatening conditions, assessment and management/treatment of minor injuries and appropriate short-term care techniques. Also introduces decision-making as it relates to delayed transport.		
<b>PEP A112</b>	<b>First Aid and CPR for Professionals</b>	<b>1 CR</b>
Contact Hours: 0.5 + 1 Grade Mode: Pass/No Pass. Special Fees. Provides CPR (infant, child, and adult) and first aid training. Successful completion of performance skills and written test will lead to national certification in first aid and CPR.		
<b>PEP A115</b>	<b>Fitness Leadership/Group Fitness and Personal Training</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Must be concurrently enrolled in PEP A116 or PEP A117. Presents concepts of personally tailored fitness programs for a wide variety of individuals, including those with common health challenges. Introduces basics of cardiorespiratory, metabolic, neuromuscular, environmental exercise physiology, biomechanics and kinesiology in regard to safe exercise. Provides information on nutrition and weight loss, injury prevention, basic emergency procedures, legal issues, and professional responsibilities of fitness instructors and personal trainers.		
<b>PEP A116</b>	<b>Techniques in Group Fitness Instruction</b>	<b>2 CR</b>
Contact Hours: 1 + 2 Prerequisites: (PEP A115 or concurrent enrollment). Special Fees. Introduces basic exercise program planning and progression, testing techniques, high risk exercises, music selection, choreography and teaching techniques. Examines a wide range of issues and formats related to exerciser's varied needs. Conducted in a lab setting for hands-on experience.		

## Course Descriptions

<b>PEP A117</b>	<b>Techniques in Personal Training</b>	<b>2 CR</b>
Contact Hours: 1 + 2 Prerequisites: (PEP A115 or concurrent enrollment). Special Fees. Special Note: Designed for individuals interested in working in the fitness industry as a personal trainer. Conducted in a lab setting for hands-on experience. Introduces the basics of client assessment, proper use of resistance and cardio equipment, teaching techniques and injury prevention. Examines a wide range of issues related to exerciser's varied needs. Presents techniques for exercise program planning, implementation and progression for general and special populations.		
<b>PEP A130</b>	<b>Introduction to Coaching</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Special Fees. Special Note: Successful completion results in eligibility for certification as a high school coach in Alaska. Explores the purpose and objectives of interscholastic athletics. Presents principles of coaching, including: common teaching and learning styles, scientific foundations of physical activity, season planning, and the development of a personal coaching philosophy. Also examines common sports safety issues as well as basic injury prevention and treatment. Reviews guidelines and requirements for Alaska high school coaches.		
<b>PEP A161</b>	<b>Wilderness First Responder</b>	<b>4 CR</b>
Contact Hours: 2 + 4 Special Fees. Special Note: Students will be awarded nationally recognized WFR certificate upon successful completion of course and other certification requirements. Provides knowledge and skills necessary to administer emergency and medical care in non-urban environments. Covers basic anatomy and physiology, assessment and treatment of injuries, appropriate short-term to multi-day patient care and evacuation considerations.		
<b>PEP A181</b>	<b>Introduction to Health, Physical Education and Recreation</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Special Note: A field outing may be required. Introduces the history, philosophies, objectives and foundations of health, physical education, and recreation. Surveys career and professional development opportunities.		
<b>PEP A182</b>	<b>Technology in Health, Physical Education &amp; Recreation</b>	<b>1 CR</b>
Contact Hours: 1 + 0 Prerequisites: PEP A181. Registration Restrictions: Departmental approval Demonstrates use of current technology while learning trends in various settings related to health, physical education and recreation. Develops knowledge, skills and abilities to use discipline-specific technology.		
<b>PEP A183</b>	<b>Wellness Principles</b>	<b>1 CR</b>
Contact Hours: 1 + 0 Registration Restrictions: Departmental approval Examines key concepts associated with the dimensions of personal wellness. Presents topics and activities for evaluation of wellness strategies for making behavior change.		
<b>PEP A184</b>	<b>Fundamental Motor Skills</b>	<b>1 CR</b>
Contact Hours: 1 + 0 Registration Restrictions: Departmental approval Introduces basic patterns used in mature motor patterns of fundamental movement. Presents phases leading to mature patterns. Applies basic observation techniques to analysis of performance.		
<b>PEP A207</b>	<b>Emergency Water Safety</b>	<b>2 CR</b>
Contact Hours: 1 + 2 Prerequisites: PER A135. Special Fees. Special Note: Prior to admission in this course, students must be able to swim 200 yards (crawl or breast stroke), foot first surface dive, retrieve a 10lb brick from 12ft depth, and tread water for two minutes using legs only. Presents professional lifeguard training to prevent, recognize, and manage aquatic emergencies. Successful completion can result in National Pool and Water Park Lifeguard License. Includes CPR/First Aid and supplemental oxygen support.		
<b>PEP A208</b>	<b>Water Safety Instructor Training</b>	<b>3 CR</b>
Contact Hours: 2 + 2 Prerequisites: PER A135. Special Fees. Presents the knowledge and skills necessary for instructor candidates to teach a wide variety of aquatic programs, including water safety courses. Successful completion can result in a WSI certification.		

<b>PEP A210</b>	<b>Wilderness Emergency Medical Technician</b>	<b>4 CR</b>
Contact Hours: 2 + 4 Prerequisites: EMT A130. Special Note: Students are required to obtain BLS Provider CPR certificate before end of course. Students in possession of current EMT will be awarded nationally recognized WEMT certificate upon successful completion of course. Provides knowledge and skills necessary to apply emergency medical training in non-rapid-transport settings. Emphasizes general medicine, trauma, environmental medicine and wilderness rescue. Provides opportunity for critical thinking, application of skills and evacuation decision-making.		
<b>PEP A230</b>	<b>Sport Ethics</b>	<b>1 CR</b>
Contact Hours: 1 + 0 Emphasizes the role of the coach in building character, good sportsmanship, and positive values in athletes. Covers teachable moments, positive communication, and teamwork.		
<b>PEP A231</b>	<b>Drugs and Sport</b>	<b>1 CR</b>
Contact Hours: 0.5 + 1 Emphasizes the role of the coach in preventing tobacco, alcohol, and other drug use among athletes. Covers how to communicate effective substance abuse prevention messages and respond to athletes who exhibit symptoms of concern.		
<b>PEP A233</b>	<b>Coaching Track &amp; Field and Running</b>	<b>2 CR</b>
Contact Hours: 1.5 + 1 Introduces track & field and running coaching techniques including creating a physical conditioning plan, developing skills, and handling competitive events.		
<b>PEP A234</b>	<b>Coaching Wrestling</b>	<b>2 CR</b>
Contact Hours: 1.5 + 1 Introduces wrestling coaching techniques, including creating a physical conditioning plan, developing skills, and handling competitive events.		
<b>PEP A235</b>	<b>Coaching Swimming and Diving</b>	<b>2 CR</b>
Contact Hours: 1.5 + 1 Prerequisites: PER A135. Special Fees. Introduces swimming and diving coaching techniques, including creating a physical conditioning plan, developing skills, and handling competitive events.		
<b>PEP A236</b>	<b>Coaching Skiing</b>	<b>2 CR</b>
Contact Hours: 1.5 + 1 Special Fees. Introduces Nordic and alpine skiing coaching techniques, including creating a physical conditioning plan, developing skills, and handling competitive events.		
<b>PEP A237</b>	<b>Coaching Figure Skating</b>	<b>2 CR</b>
Contact Hours: 1.5 + 1 Prerequisites: PER A137. Introduces figure skating coaching techniques, including creating a physical conditioning plan, developing skills, and handling competitive events.		
<b>PEP A238</b>	<b>Coaching Gymnastics</b>	<b>2 CR</b>
Contact Hours: 1.5 + 1 Introduces gymnastics coaching techniques, including creating a physical conditioning plan, developing skills, and handling competitive events.		
<b>PEP A239</b>	<b>Coaching Baseball/Softball</b>	<b>2 CR</b>
Contact Hours: 1.5 + 1 Special Fees. Introduces baseball/softball coaching techniques, including creating a physical conditioning plan, developing skills, and handling competitive events.		
<b>PEP A240</b>	<b>Coaching Football</b>	<b>2 CR</b>
Contact Hours: 1.5 + 1 Introduces football coaching techniques, including creating a physical conditioning plan, developing skills, and handling competitive events.		
<b>PEP A241</b>	<b>Coaching Basketball</b>	<b>2 CR</b>
Contact Hours: 1.5 + 1 Prerequisites: PER A141. Special Fees. Introduces basketball coaching techniques, including creating a physical conditioning plan, developing skills, and handling competitive events.		
<b>PEP A242</b>	<b>Coaching Soccer</b>	<b>2 CR</b>
Contact Hours: 1.5 + 1 Prerequisites: PER A142. Special Fees. Introduces soccer coaching techniques, including creating a physical conditioning plan, developing skills, and handling competitive events.		
<b>PEP A243</b>	<b>Coaching Hockey</b>	<b>2 CR</b>
Contact Hours: 1.5 + 1 Prerequisites: PER A143. Introduces hockey coaching techniques, including creating a physical conditioning plan, developing skills, and handling competitive events.		

<b>PEP A244</b>	<b>Coaching Volleyball</b>	<b>2 CR</b>	<b>PEP A285</b>	<b>Leadership in Team Activities</b>	<b>2 CR</b>
Contact Hours: 1.5 + 1 Prerequisites: PER A144. Special Fees. Introduces volleyball coaching techniques, including creating a physical conditioning plan, developing skills, and handling competitive events.			Contact Hours: 1 + 2 Prerequisites: PEP A280. Registration Restrictions: Departmental approval Special Fees. Examines key concepts and activities associated with team activities. Presents a variety of motor skill themes and movement concepts in a progression from the precontrol to the proficiency level. Examines preparation for game play through combining of skills, using skills in more complex ways, and utilizing offensive and defensive strategies.		
<b>PEP A251</b>	<b>Prevention and Care of Activity-Related Injuries</b>	<b>3 CR</b>	<b>PEP A286</b>	<b>Leadership in Individual and Dual Activities</b>	<b>2 CR</b>
Contact Hours: 2 + 2 Prerequisites: BIOL A111 and BIOL A112. Special Fees. Special Note: Field work is required. Introduces the profession of athletic training. Examines theories and practices in preventing, recognizing, and treating common activity-related injuries.			Contact Hours: 1 + 2 Prerequisites: PEP A280. Registration Restrictions: Departmental approval Special Fees. Examines key concepts associated with individual and dual activities. Presents a variety of motor skill themes and movement concepts in a progression from the precontrol to the proficiency level. Examines preparation for game play through the combining of skills, using skills in more complex ways, and utilizing offensive and defensive strategies.		
<b>PEP A262</b>	<b>Foundations of Outdoor Recreation</b>	<b>3 CR</b>	<b>PEP A287</b>	<b>Leadership in Outdoor Recreation Activities</b>	<b>2 CR</b>
Contact Hours: 2 + 2 Introduction to the field of outdoor recreation and leadership including implications for individuals and groups in changing society. Examines philosophical, historical, theoretical, legal and ethical foundations of the field. Explores career opportunities and options. Examines leisure and recreation as an expression of culture, society and wellness.			Contact Hours: 1 + 2 Prerequisites: PEP A280. Registration Restrictions: Departmental approval Special Fees. Examines key concepts and activities associated with outdoor recreation. Presents a variety of activities such as hiking, camping, canoeing, orienteering, snowshoeing and cross-country skiing. Introduces planning, preparation, equipment, techniques, leadership, environmental ethics, and safety.		
<b>PEP A264</b>	<b>Recreation Program Planning and Evaluation</b>	<b>3 CR</b>	<b>PEP A288</b>	<b>Leadership in Rhythmic Activities</b>	<b>2 CR</b>
Contact Hours: 2 + 2 Prerequisites: PEP A181 and PEP A262 and (PEP A280 or concurrent enrollment). Special Fees. Examines the fundamental conceptual and operational aspects of recreational program planning, delivery, and evaluation. Examines techniques and applications for a variety of leisure and recreational programming experiences to individuals or groups. Introduces assessing needs, budgeting, marketing, implementation, and evaluation of a wide range of leisure and recreational entrepreneurial, and managerial dimensions of providing recreation opportunities.			Contact Hours: 1 + 2 Prerequisites: PEP A280. Registration Restrictions: Departmental approval Special Fees. Examines key concepts associated with rhythmic activities. Presents a variety of fundamental, rhythmical patterns and movement concepts in a progression from precontrol to proficiency level. Demonstrates rhythmical experiences; folk, ethnic or square dances; creative dance; and educational gymnastics. Combines the mastery of movement skills with the artistry of expression.		
<b>PEP A280</b>	<b>Leadership in Health, Physical Education &amp; Recreation</b>	<b>3 CR</b>	<b>PEP A345</b>	<b>Incorporating Health and Physical Activity into the Pre-K - 6 Classroom</b>	<b>2 CR</b>
Contact Hours: 3 + 0 Prerequisites: PEP A181. Registration Restrictions: Departmental approval Special Note: Community service and/or professional development required. Examines key concepts related to leadership in the HPER fields. Introduces preparation, short and long-term planning, observation skills, and evaluation skills. Surveys leadership techniques commonly used in the HPER fields.			Contact Hours: 1 + 2 Prerequisites: EDSE A212 or PSY A245. Special Fees. Examines the relationship between physical activity and learning based on brain research, cooperative learning models, and multiple intelligences. Builds content and behavior knowledge to enhance learning and strategies for making positive behavior changes for elementary education and early childhood majors. Includes a variety of methods and activities for adding physical activity and health into lesson instruction. Emphasizes how key health and physical activity concepts relate to state standards; promotes positive attitudes, working with families, and developmentally appropriate curriculum strategies.		
<b>PEP A281</b>	<b>Leadership in Activities for Diverse Populations</b>	<b>2 CR</b>	<b>PEP A346</b>	<b>Lower Body Injury Assessment Skills</b>	<b>3 CR</b>
Contact Hours: 1 + 2 Prerequisites: PEP A280. Registration Restrictions: Departmental approval Special Fees. Examines key concepts and presents a variety of activities adapted to meet the needs of diverse populations. Presents information and current research related to various disabilities. Examines and applies strategies for promoting physical activity experiences for individuals with special needs.			Contact Hours: 0.5 + 7.5 Prerequisites: PEP A251. Special Fees. Special Note: This is a clinical/practicum course and field work is required. Focuses on the recognition and assessment of athletic injuries. Emphasizes lower body injury assessment skills and proficiencies.		
<b>PEP A282</b>	<b>Leadership in Initiative Activities</b>	<b>2 CR</b>	<b>PEP A347</b>	<b>Upper Body Injury Assessment Skills</b>	<b>3 CR</b>
Contact Hours: 1 + 2 Prerequisites: PEP A280. Registration Restrictions: Departmental approval Special Fees. Examines key concepts and activities for facilitating experiential leadership, team-building, and personal growth initiatives. Presents a variety of game types, including those designed as icebreakers, de-inhibitizers, team-builders, for cognitive development and for character development. Introduces planning, preparation, props, techniques, leadership, and safety, with an emphasis on facilitation and de-briefing.			Contact Hours: 0.5 + 7.5 Prerequisites: PEP A251 and PEP A346. Special Fees. Special Note: This is a clinical/practicum course and field work is required. Focuses on the recognition and assessment of athletic injuries. Emphasizes upper body injury assessment skills and proficiencies.		
<b>PEP A283</b>	<b>Leadership in Aquatic Activities</b>	<b>2 CR</b>	<b>PEP A363</b>	<b>Natural History Interpretation and Environmental Education</b>	<b>3 CR</b>
Contact Hours: 1 + 2 Prerequisites: PEP A280. Registration Restrictions: Departmental Approval Special Fees. Examines key concepts associated with aquatic activities. Presents a variety of motor skill themes and movement concepts in a progression from the precontrol level to the proficiency level. Presents a variety of water activities.			Contact Hours: 2 + 2 Prerequisites: ENVI A303. Introduces skills for reading and interpreting the natural environment. Illustrates geological, biological, and cultural factors to participants or clients. Also covers environmental education strategies and techniques.		
<b>PEP A284</b>	<b>Leadership in Fitness Activities</b>	<b>2 CR</b>			
Contact Hours: 1 + 2 Prerequisites: PEP A280. Registration Restrictions: Departmental Approval Special Fees. Examines key concepts associated with fitness activities. Presents a variety of topics and activities designed to promote lifetime physical fitness. Evaluates and applies strategies for promoting positive behavior changes for personal health and wellness.					

## Course Descriptions

<p><b>PEP A364</b>                    <b>Survival and Search and Rescue for Adventure Leaders</b>                    <b>3 CR</b></p> <p>Contact Hours: 3 + 0 Prerequisites: PEP A161 and PEP A262. Registration Restrictions: Activity course requirements completed; instructor approval.</p> <p>Presents theoretical overview of survival with emphasis on psychology of lost persons and survivors. Presents small group search for lost persons and self-rescue considerations. Introduces local and national Search and Rescue (SAR) systems and operational methods.</p>	<p><b>PEP A455</b>                    <b>Cardiac Rehabilitation and Special Populations</b>                    <b>4 CR</b></p> <p>Contact Hours: 3 + 2 Prerequisites: PEP A385 and PEP A454. Class Standing Restriction: Must be Junior or Senior. Registration Restrictions: Junior or Senior standing Special Fees.</p> <p>Focuses on exercise as an integral part of medicine by assisting in the diagnosis of cardiovascular disease and by serving as an adjunct to traditional medical practice in the treatment of persons with cardiovascular and other chronic diseases and disabilities. Emphasizes the pathophysiology and detection of diseases, medical management, and exercise therapy program design.</p>
<p><b>PEP A365</b>                    <b>Adventure Leadership Theory and Practice</b>                    <b>3 CR</b></p> <p>Contact Hours: 3 + 0 Prerequisites: PEP A262 and PEP A282 and PEP A287 and (PEP A384 or concurrent enrollment).</p> <p>Presents theories of leadership with emphasis on adventure programming application. Covers leadership styles, power, motivation, followership, group dynamics, diversity, safety, and ethics.</p>	<p><b>PEP A456</b>                    <b>Contemporary Personal Health Issues</b>                    <b>3 CR</b></p> <p>Contact Hours: 3 + 0 Class Standing Restriction: Must be Senior. Registration Restrictions: Senior status.</p> <p>Covers contemporary issues related to personal health. Focuses on subjects such as nutrition, fitness, substance abuse, consumer issues, sexual health, and emotional health issues. Additional topics will reflect concerns related to personal health.</p>
<p><b>PEP A382</b>                    <b>Kinesiology and Biomechanics</b>                    <b>4 CR</b></p> <p>Contact Hours: 3 + 2 Prerequisites: BIOL A111 and BIOL A112. Special Fees.</p> <p>Analyzes the structure, function, and mechanics of human movement with an emphasis on exercise, sports, and recreational activities. Includes application-based laboratory experiences.</p>	<p><b>PEP A464</b>                    <b>Outdoor Recreation Administration</b>                    <b>3 CR</b></p> <p>Contact Hours: 3 + 0.5 Prerequisites: PEP A181 and PEP A262 and PEP A264 and PEP A280.</p> <p>Analysis of the administration, operation, policies, practices, and procedures of recreation programming and provider organizations. Course includes logistics, public policy, land use/management and permits, personnel recruitment, assignment, training, and evaluation, resource allocation, risk management, insurance, and scheduling. Examines development of organizational mission, values, strategic planning, funding sources, and facilities.</p>
<p><b>PEP A383</b>                    <b>Movement Theory and Motor Development</b>                    <b>3 CR</b></p> <p>Contact Hours: 3 + 0 Prerequisites: PSY A111 or PSY A150.</p> <p>Analyzes the process of development in the psychomotor domain. Investigates motor learning theories, physiological foundations of skill performance, motor skill development, environmental effects, application of motor development instructional techniques, and measurement processes.</p>	<p><b>PEP A466</b>                    <b>Organizational Safety and Risk Management</b>                    <b>3 CR</b></p> <p>Contact Hours: 3 + 0 Prerequisites: PEP A161 and PEP A364 and (PEP A365 or concurrent enrollment) and PEP A384.</p> <p>Provides an in-depth analysis of accident prevention and crisis response from an organizational perspective. Emphasizes current standards as well as prevention and response plans to minimize the potential for, and consequences of, an accident.</p>
<p><b>PEP A384</b>                    <b>Cultural and Psychological Aspects of Health and Physical Activity</b>                    <b>3 CR</b></p> <p>Contact Hours: 3 + 0 Prerequisites: PSY A111 or PSY A150. Registration Restrictions: Completion of GER Tier 1 (Basic college-level skills) courses and junior standing. Course Attributes: UAA GER Integrative Capstone.</p> <p>Investigates the dynamic relationship between psychological issues and health behavior adherence and/or physical activity performance. Analyzes the interaction between physical activity and society.</p>	<p><b>PEP A467A</b>                    <b>Challenge Course Adventure Leadership</b>                    <b>2 CR</b></p> <p>Contact Hours: 0.5 + 3 Prerequisites: PEP A282 and PEP A364 and PEP A365.</p> <p>Provides techniques and strategies of challenge course leadership. Emphasizes application of leadership skills in field-based experiences. Covers assessment, logistics, initiatives, low and high ropes course elements, and safety, with an emphasis on facilitation and debriefing.</p>
<p><b>PEP A385</b>                    <b>Physiology of Exercise</b>                    <b>4 CR</b></p> <p>Contact Hours: 3 + 2 Prerequisites: BIOL A111 and BIOL A112. Special Fees.</p> <p>Analyzes the relationship of physical activity and exercise and the various physiological processes of the human body. Examines the sources and metabolism of energy used to produce movement and other factors that may influence performance.</p>	<p><b>PEP A467B</b>                    <b>Climbing-Based Adventure Leadership</b>                    <b>2 CR</b></p> <p>Contact Hours: 0.5 + 3 Prerequisites: PEP A161 and PEP A365 and PER A146 and PER A147 and PER A148 and PER A181 and PER A246.</p> <p>Presents techniques and strategies of outdoor leadership in the alpine or climbing environment. Emphasizes application of leadership skills in field-based experiences. Covers planning and organization, logistics, rope systems and anchors, environmental considerations, decision making and judgment, and safety.</p>
<p><b>PEP A442</b>                    <b>Exercise and Aging</b>                    <b>3 CR</b></p> <p>Contact Hours: 2.5 + 1 Special Note: Recommended for juniors or seniors who have had at least one course in anatomy, physiology, psychology, sociology or gerontology.</p> <p>Develops knowledge and skills necessary for understanding, leading or participating in physical programs for older adults. Fosters positive attitudes and addresses creative and meaningful movement experiences as well as the physiological implications for the aged individual.</p>	<p><b>PEP A467C</b>                    <b>Land-Based Outdoor Leadership</b>                    <b>2 CR</b></p> <p>Contact Hours: 0.5 + 3 Prerequisites: PEP A262 and PEP A264 and PER A165 and PER A169 and [PER A146 or PER A147]. Registration Restrictions: Instructor permission.</p> <p>Presents techniques and strategies of terrestrial-based outdoor leadership in all seasons. Emphasizes application of leadership skills in field-based experiences. Covers planning and organization, logistics, campcraft, environmental considerations, decision making and judgment, and safety.</p>
<p><b>PEP A453</b>                    <b>Health Promotion</b>                    <b>3 CR</b></p> <p>Contact Hours: 3 + 0 Prerequisites: BA A151 and PEP A181. Class Standing Restriction: Must be Junior or Senior. Registration Restrictions: Junior or senior status</p> <p>Focuses on understanding health behaviors and the development of intervention strategies to modify health behaviors. Provides a look at various health promotion settings and the role of the health/fitness professional.</p>	<p><b>PEP A467D</b>                    <b>Water-Based Outdoor Leadership</b>                    <b>2 CR</b></p> <p>Contact Hours: 0.5 + 3 Prerequisites: PEP A150 and PER A169 and PER A264 and [PER A151 or PER A152 or PER A153]. Registration Restrictions: Instructor permission.</p> <p>Presents techniques and strategies of water-based outdoor leadership in all seasons. Emphasizes application of leadership skills in field-based experiences. Covers planning and organization, logistics, lead paddling considerations, environmental considerations, decision making, judgment and safety.</p>
<p><b>PEP A454</b>                    <b>Exercise Testing and Prescription</b>                    <b>4 CR</b></p> <p>Contact Hours: 3 + 2 Prerequisites: PEP A385. Class Standing Restriction: Must be Junior or Senior. Registration Restrictions: Junior or senior status Special Fees.</p> <p>Provides techniques necessary for exercise test administration, evaluation, and prescription for individuals. Emphasizes clinical physiology, testing protocols and the evaluation of results, and the design of individual exercise prescriptions based upon the results.</p>	<p><b>PEP A486</b>                    <b>Standards and Assessment in Health, Physical Education, and Recreation</b>                    <b>3 CR</b></p> <p>Contact Hours: 3 + 0 Prerequisites: PEP A181.</p> <p>Emphasizes program development and planning based on national, state, and local standards in health, physical education, recreation, and adventure leadership. Applies appropriate strategies to assess program and client success.</p>



<b>PEP A487</b>	<b>Administration and Supervision in Health, Physical Education and Recreation</b>	<b>3 CR</b>	<b>PER A104</b>	<b>Aerobic Walking</b>	<b>1 CR</b>
Contact Hours: 3 + 0 Prerequisites: PEP A181. Critiques and evaluates the technical, leadership, and supervisory skills necessary to safely and effectively administer health, physical education and recreation programs. Theoretical, practical, and research perspectives will be presented.			Contact Hours: 0.5 + 1 Special Fees. Introduces key concepts associated with lifetime fitness Presents the concepts and technical skills to set up and participate in a regular aerobic walking program.		
<b>PEP A495</b>	<b>Internship in Health and Fitness Leadership</b>	<b>6 CR</b>	<b>PER A105</b>	<b>Low Impact Aerobics</b>	<b>1 CR</b>
Contact Hours: 0.5 + 16.5 Registration Restrictions: Successful completion of a minimum of 12 hours of upper level emphasis-specific courses; Grade of C or better in all emphasis-specific courses with minimum GPA of 2.75; Instructor approval; Current CPR/First Aid certification required for internship placement; Admission to BS in PE; Senior status. Special Fees. Special Note: Special clothing may be required. Advanced professional experience in an approved position with supervision and training in health and fitness programming.			Contact Hours: 0.5 + 1 Special Fees. Introduces key concepts related to lifetime personal fitness. Presents a variety of beginning level aerobic exercise routines for improved physical fitness. Designed for individuals who have not participated in regular exercise and would like to begin a safe and effective fitness program.		
<b>PEP A496</b>	<b>Internship in Adventure Leadership</b>	<b>6 CR</b>	<b>PER A106</b>	<b>Aerobics</b>	<b>1 CR</b>
Contact Hours: 0.5 + 16.5 Prerequisites: PEP A365 and PEP A466 and PEP A487. Registration Restrictions: A grade of C or better in all emphasis-specific courses with a minimum overall GPA of 2.75; 100 days of field leadership, at least 50 of which are outside UAA; Instructor approval; Current CPR/First Aid certification required for placement; Admission to BS in PE; Senior status. Special Fees. Special Note: Special clothing may be required. Provides advanced professional experience in an approved position with supervision and training in various aspects of adventure programming.			Contact Hours: 0.5 + 1 Special Fees. Introduces key concepts related to lifetime personal fitness. Presents a variety of aerobic exercise routines such as step aerobics, lateral training, circuit training, and interval training for improved physical fitness.		
<b>PEP A645</b>	<b>Methods in Elementary Physical Education</b>	<b>3 CR</b>	<b>PER A107</b>	<b>Aerobic Kickboxing</b>	<b>1 CR</b>
Contact Hours: 3 + 0 Prerequisites: EDFN A478 and EDFN A602. Registration Restrictions: Departmental approval. Special Fees. Special Note: Concurrent enrollment in an internship is required. Applies theory and practice necessary for facilitating learning, providing positive behavioral supports, evaluating programs, and developing curriculum within the elementary physical education classroom ecology.			Contact Hours: 0.5 + 1 Special Fees. Presents the fundamentals of intermediate intensity kickboxing, martial arts-based aerobics, and interval training for improved physical fitness.		
<b>PEP A646</b>	<b>Methods in Secondary Physical Education</b>	<b>3 CR</b>	<b>PER A109</b>	<b>Aqua Aerobics</b>	<b>1 CR</b>
Contact Hours: 3 + 0 Prerequisites: EDFN A478 and EDFN A602. Registration Restrictions: Departmental approval. Special Fees. Special Note: Concurrent enrollment in an internship is required. Applies theory and practice necessary for facilitating learning, providing positive behavioral supports, evaluating programs, and developing curriculum within the secondary physical education classroom ecology.			Contact Hours: 0.5 + 1 Special Fees. Introduces key concepts related to lifetime personal fitness. Presents a variety of aqua aerobic exercise routines such as deep water jogging, aerobics to music, circuit training, and interval training. Designed for swimmers and non-swimmers.		
<b>PER - Physical Education &amp; Recreation</b>			<b>PER A111</b>	<b>Country Line Style Workout</b>	<b>1 CR</b>
<i>Offered through the Community &amp; Technical College Eugene Short Hall (ESH), Room 125, 786-4083 <a href="http://www.uaa.alaska.edu/ctc/programs/hper">www.uaa.alaska.edu/ctc/programs/hper</a></i>			Contact Hours: 0.5 + 1 Special Fees. Introduces country line dancing as an effective way to improve cardio-respiratory fitness and muscular endurance. Covers basic dance terminology and conditioning exercise for specific muscles.		
<b>PER A100</b>	<b>Fitness for Life</b>	<b>2 CR</b>	<b>PER A113</b>	<b>Beginning Pilates</b>	<b>1 CR</b>
Contact Hours: 1 + 2 Special Fees. Introduces key concepts associated with lifetime personal fitness. Presents a variety of physical activities for improved health-related fitness. Combines lecture with lab sessions.			Contact Hours: 0.5 + 1 Special Fees. Introduces Pilates as an effective way to improve strength and flexibility. Covers basic fitness concepts and exercises which target development of core strength (abdomen, lower back, buttocks, hips, and thighs) by utilizing one's own body weight for resistance.		
<b>PER A101</b>	<b>Fitness Cross Training</b>	<b>1 CR</b>	<b>PER A114</b>	<b>Muscle Fitness</b>	<b>1 CR</b>
Contact Hours: 0.5 + 1 Special Fees. Introduces a wide variety of cross training exercise formats for total fitness. Develops individual fitness through a variety of workouts, such as step aerobics, weight training, lateral training, circuit training, and fitness walking.			Contact Hours: 0.5 + 1 Special Fees. Introduces key concepts related to lifetime personal fitness. Presents a variety of non-aerobic exercises such as light weight training, resistance bands, circuit training, and interval training for improved skill-related fitness, muscular endurance, and flexibility.		
<b>PER A103</b>	<b>Indoor Stationary Cycling</b>	<b>1 CR</b>	<b>PER A116</b>	<b>Circuit Training</b>	<b>1 CR</b>
Contact Hours: 0.5 + 1 Special Fees. Introduces the basic skills and concepts associated with indoor cycling. Applies basic principles of cycling through active participation. Introduces key concepts related to lifetime fitness.			Contact Hours: 0.5 + 1 Special Fees. Introduces key concepts related to lifetime personal fitness. Presents circuit training as a way to improve strength, physical conditioning, and general sports performance. Covers cardiorespiratory training, flexibility exercises, and safe techniques for improved muscular strength and endurance.		
			<b>PER A117</b>	<b>Shape Up with Weights</b>	<b>1 CR</b>
			Contact Hours: 0.5 + 1 Special Fees. Introduces key concepts related to lifetime personal fitness. Presents weight room resistance exercises to tone and condition major muscle groups. Introduces total program planning, including cardiorespiratory training, flexibility exercises, and healthy nutritional practices.		
			<b>PER A118</b>	<b>Beginning Weight Training</b>	<b>1 CR</b>
			Contact Hours: 0.5 + 1 Special Fees. Introduces key concepts related to lifetime personal fitness. Presents resistance exercises to strengthen and condition major muscle groups.		
			<b>PER A120</b>	<b>Beginning Yoga</b>	<b>1 CR</b>
			Contact Hours: 0.5 + 1 Special Fees. Introduces yoga physical exercises, breathing, relaxation and concentration techniques as an approach to wellness.		

## Course Descriptions

<p><b>PER A121</b>                      <b>Yoga for Athletes</b>                      <b>1 CR</b>            Contact Hours: 0.5 + 1            Special Fees.            Introduces yoga exercises, breathing techniques, and relaxation exercises for athletes. Presents stretching, strengthening, breath control, and mental conditioning exercises as an aid to improving performance and enjoyment of athletic activity.</p>	<p><b>PER A138</b>                      <b>Beginning Foil Fencing</b>                      <b>1 CR</b>            Contact Hours: 0.5 + 1            Special Fees.            Introduces the basic skills and knowledge of the sport of fencing with foils. Applies the basic principles of fencing through active participation.</p>
<p><b>PER A123</b>                      <b>Beginning Tai Chi</b>                      <b>1 CR</b>            Contact Hours: 0.5 + 1            Special Fees.            Introduces Tai Chi exercises designed to improve health, tranquility, energy, and strength.</p>	<p><b>PER A139</b>                      <b>Recreational Latin Dance</b>                      <b>1 CR</b>            Contact Hours: 0.5 + 1            Special Fees.            Introduces basic skills associated with social Latin dance. Covers various dances including Merenge, Bachata, Cumbia, Cha-Cha-Cha, and Salsa. Applies concepts of fitness, but focuses on Latin dance as a form of recreation.</p>
<p><b>PER A124</b>                      <b>Beginning Karate</b>                      <b>1 CR</b>            Contact Hours: 0.5 + 1            Special Fees.            Introduces karate philosophy, principles, and applications. Training and discipline on the physical, mental, and spiritual levels will be covered.</p>	<p><b>PER A141</b>                      <b>Beginning Basketball</b>                      <b>1 CR</b>            Contact Hours: 0.5 + 1            Special Fees.            Introduces the basic skills and knowledge associated with playing basketball. Applies basic principles of basketball through active participation.</p>
<p><b>PER A125</b>                      <b>Beginning Kung Fu</b>                      <b>1 CR</b>            Contact Hours: 0.5 + 1            Special Fees.            Introduces Northern Shaolin Kung Fu philosophy, principles, and applications. Training and discipline on the physical, mental, and spiritual levels will be covered.</p>	<p><b>PER A142</b>                      <b>Beginning Soccer</b>                      <b>1 CR</b>            Contact Hours: 0.5 + 1            Special Fees.            Introduces the basic skills and knowledge associated with playing soccer. Applies basic principles of soccer through active participation.</p>
<p><b>PER A126</b>                      <b>Beginning Kendo</b>                      <b>1 CR</b>            Contact Hours: 0.5 + 1            Special Fees.            Introduces Kendo, the art of Japanese fencing. Training and discipline on the physical, mental, and spiritual levels will be covered.</p>	<p><b>PER A143</b>                      <b>Beginning Hockey</b>                      <b>1 CR</b>            Contact Hours: 0.5 + 1            Special Fees.            Introduces the basic skills and knowledge associated with playing hockey. Applies basic principles of hockey through active participation.</p>
<p><b>PER A127</b>                      <b>Beginning Tae Kwon Do</b>                      <b>1 CR</b>            Contact Hours: 0.5 + 1            Special Fees.            Introduces Tae Kwon Do philosophy, principles, and applications. Training and discipline on the physical, mental, and spiritual levels will be covered.</p>	<p><b>PER A144</b>                      <b>Beginning Volleyball</b>                      <b>1 CR</b>            Contact Hours: 0.5 + 1            Special Fees.            Introduces the basic skills and knowledge associated with playing volleyball. Applies basic principles of volleyball through active participation.</p>
<p><b>PER A128</b>                      <b>Wing Tsun for Self Defense</b>                      <b>1 CR</b>            Contact Hours: 0.5 + 1            Special Fees.            Introduces Wing Tsun (a form of Kung Fu) concepts and applications. Focuses on self-defense. Basic history and philosophy as well as benefits of Wing Tsun will also be presented.</p>	<p><b>PER A146</b>                      <b>Beginning Rock Climbing</b>                      <b>1 CR</b>            Contact Hours: 0.5 + 1            Special Fees.            Special Note: Requires ability to function comfortably in inclement weather.            Introduces the fundamentals of rock climbing in Alaska. Covers hazard evaluation and risk assessment, selection of personal gear, technical needs, and safety equipment. Provides opportunity to practice knots, rope handling, belay, basic descending techniques, and top-rope rock climbing.</p>
<p><b>PER A130</b>                      <b>Beginning Tennis</b>                      <b>1 CR</b>            Contact Hours: 0.5 + 1            Special Fees.            Introduces basic skills and knowledge to play singles and doubles tennis. Applies basic principles of tennis through active participation.</p>	<p><b>PER A147</b>                      <b>Beginning Ice Climbing</b>                      <b>1 CR</b>            Contact Hours: 0.5 + 1            Special Fees.            Special Note: Requires ability to function comfortably in extremely cold temperatures and inclement weather.            Introduces the fundamentals of ice climbing in Alaska. Covers hazard evaluation and risk assessment, selection of personal gear, technical needs, and safety equipment. Introduces knots, rope handling, belay, basic descending techniques, and top-rope ice climbing.</p>
<p><b>PER A131</b>                      <b>Beginning Racquetball</b>                      <b>1 CR</b>            Contact Hours: 0.5 + 1            Special Fees.            Introduces the basic skills and knowledge associated with playing racquetball. Applies basic principles of racquetball through active participation.</p>	<p><b>PER A148</b>                      <b>Beginning Indoor Sport Climbing</b>                      <b>1 CR</b>            Contact Hours: 0.5 + 1            Special Fees.            Introduces the fundamentals of sport climbing in an indoor environment. Covers hazard evaluation and risk assessment specific to climbing gyms. Also covers selection of personal gear, technical needs, and safety equipment specific to indoor climbing. Introduces and provides opportunity to practice knots, rope handling, belaying, descent techniques, and top-rope climbing on an indoor climbing wall.</p>
<p><b>PER A132</b>                      <b>Beginning Golf</b>                      <b>1 CR</b>            Contact Hours: 0.5 + 1            Special Fees.            Introduces the basic skills and knowledge associated with playing golf. Applies basic principles of golf through active participation.</p>	<p><b>PER A150</b>                      <b>Water Safety and Rescue</b>                      <b>1 CR</b>            Contact Hours: 0.5 + 1            Prerequisites: PER A151 or PER A152 or PER A153.            Special Fees.            Special Note: Must be able to swim. Must have good level of physical fitness. May require purchase or rental of additional equipment. Must be able to function comfortably in inclement weather.            Introduces course participants to hazards and mitigation techniques for safe travel on rivers, lakes, and oceans. Covers basic safety and rescue theories, procedures, and techniques that are effective in contributing to safe and enjoyable water travel.</p>
<p><b>PER A133</b>                      <b>Beginning Bowling</b>                      <b>1 CR</b>            Contact Hours: 0.5 + 1            Special Fees.            Introduces the basic skills and knowledge associated with bowling. Applies basic principles of bowling through active participation.</p>	
<p><b>PER A135</b>                      <b>Beginning Swimming</b>                      <b>1 CR</b>            Contact Hours: 0.5 + 1            Special Fees.            Introduces proper breathing technique and basic strokes for those with little or no swimming background. Emphasizes personal water safety.</p>	
<p><b>PER A136</b>                      <b>Beginning In-Line Skating</b>                      <b>1 CR</b>            Contact Hours: 0.5 + 1            Special Fees.            Introduces the basic skills and knowledge associated with in-line skating. Applies basic principles of in-line skating through active participation.</p>	
<p><b>PER A137</b>                      <b>Beginning Ice Skating</b>                      <b>1 CR</b>            Contact Hours: 0.5 + 1            Special Fees.            Introduces the basic skills and knowledge associated with ice skating. Applies basic principles of skating through active participation.</p>	

<p><b>PER A151</b>                    <b>Beginning Canoeing</b>                    <b>1 CR</b>  Contact Hours: 0.5 + 1  Special Fees.  Special Note: Requires excellent backcountry camping skills and the ability to function comfortably in inclement weather. An overnight field outing may be included in the course. Students may need to rent or purchase additional gear.  Introduces the most commonly used equipment, techniques, challenges, and risks found in the sport of canoeing. Includes instruction on equipment selection, trip planning, canoeing strokes and re-entry techniques with an emphasis on risk assessment and risk management.</p>	<p><b>PER A164</b>                    <b>Skiing Alaska's Backcountry</b>                    <b>2 CR</b>  Contact Hours: 1 + 2  Special Fees.  Special Note: Requires ability to function comfortably in extremely cold or inclement weather. A good level of physical fitness is required. Ability to ski/snowboard at intermediate level to be determined in first field session. Students may need to rent or purchase additional equipment for this course.  Introduces skills needed to ski off-trail. Covers techniques for traveling on rolling and inclined terrain, negotiating side hills, and skiing inclines and declines of up to 40 degrees. Covers selecting personal and group safety equipment, evaluating avalanche hazards and assessing risk.</p>
<p><b>PER A152</b>                    <b>Beginning River Rafting</b>                    <b>1 CR</b>  Contact Hours: 0.5 + 1  Special Fees.  Special Note: Requires good backcountry camping skills and the ability to function comfortably in inclement weather. An overnight field outing may be included in the course. Students may need to rent or purchase additional gear.  Introduces the most commonly used equipment, techniques, challenges, and risks found in the sport of river rafting. Includes instruction on equipment selection, trip planning, preparing to paddle/row and minimum impact practices with an emphasis on risk assessment and risk management.</p>	<p><b>PER A165</b>                    <b>Avalanche Hazard Recognition and Evaluation</b>                    <b>1 CR</b>  Contact Hours: 0.5 + 1  Special Fees.  Special Note: Requires a good level of physical fitness. May require purchase or rental of additional equipment. Requires travel in mountainous terrain. Must have ability to function comfortably in inclement weather.  Introduces travel techniques in avalanche-prone backcountry terrain. This is a field-oriented backcountry avalanche course covering rescue, terrain analysis, snow study, stability, evaluation, route-finding, decision-making and safe travel techniques.</p>
<p><b>PER A153</b>                    <b>Beginning Sea Kayaking</b>                    <b>1 CR</b>  Contact Hours: 0.5 + 1  Special Fees.  Special Note: Requires good backcountry camping skills and the ability to function comfortably in inclement weather. An overnight field outing may be included in the course. Students may need to rent or purchase additional gear for this course.  Introduces the fundamentals of sea kayaking in Alaska. Includes the most commonly used equipment, techniques, challenges, and risks found in the sport. Provides instruction in selecting equipment, trip planning, transporting boats, preparing to paddle, boat handling, re-entry techniques, and sea kayaking strokes. Emphasizes risk assessment and safety skills.</p>	<p><b>PER A166</b>                    <b>Beginning Snowboarding</b>                    <b>1 CR</b>  Contact Hours: 0.5 + 1  Special Fees.  Special Note: Students may be required to rent or purchase equipment and/or lift tickets for outings. Requires ability to perform comfortably in extremely cold and/or inclement weather.  Introduces snowboarding and the equipment, techniques, challenges, and risks common to the sport. Covers selecting personal and safety equipment, recognizing and preventing cold-weather injuries, and learning snowboarding techniques and ski-hill rules.</p>
<p><b>PER A154</b>                    <b>Beginning Sailing</b>                    <b>1 CR</b>  Contact Hours: 0.5 + 1  Special Fees.  Special Note: Requires ability to perform comfortably in inclement weather. Field session may be held on local lakes and/or ocean environment.  Introduces the equipment, vocabulary, techniques, challenges, and risks most commonly found in the sport of sailing. Provides opportunity to become familiar with safety equipment, learn pre-trip preparation, practice boat-handling skills, and identify types used in the event of an emergency.</p>	<p><b>PER A167</b>                    <b>Dog Mushing</b>                    <b>1 CR</b>  Contact Hours: 0.5 + 1  Special Fees.  Special Note: Requires ability to function comfortably in extremely cold and/or inclement weather.  Introduces the practice of dog mushing, including the sport's history, dog breeds and characteristics, their training and feeding needs, kennel-management routines, and dog-handling skills.</p>
<p><b>PER A160</b>                    <b>Beginning Cross-Country Ski: Diagonal Stride</b>                    <b>1 CR</b>  Contact Hours: 0.5 + 1  Special Fees.  Special Note: Requires ability to perform comfortably in extremely cold and inclement weather. Students may need to rent or purchase additional equipment for this course.  Introduces fundamentals of diagonal-stride cross-country skiing. Covers selection of personal clothing, ski and safety equipment, recognition and prevention of cold-weather injuries, and skiing skills and trail ethics.</p>	<p><b>PER A168</b>                    <b>Winter Camping Alaska</b>                    <b>1 CR</b>  Contact Hours: 0.5 + 1  Special Fees.  Special Note: Requires good physical condition and ability to perform comfortably in extremely cold and/or inclement weather.  Introduces winter camping in Alaska. Covers selection of personal, group and safety equipment appropriate for an overnight outing. Emphasizes snow shelter construction and learning to assess risk in the field. Course includes an overnight outing.</p>
<p><b>PER A161</b>                    <b>Beginning Cross-Country Skate Skiing</b>                    <b>1 CR</b>  Contact Hours: 0.5 + 1  Special Fees.  Special Note: Requires ability to remain active and perform comfortably in extremely cold and/or inclement weather for up to two hours.  Introduces skate skiing techniques for groomed trail conditions. Covers selection of personal and safety equipment, recognition and prevention of cold-weather injuries, and skiing skills and trail ethics. Provides opportunity for skiing on local trails.</p>	<p><b>PER A169</b>                    <b>Four-Season Backpacking</b>                    <b>3 CR</b>  Contact Hours: 1 + 4  Special Fees.  Special Note: Requires good backcountry camping skills, good physical fitness level and ability to perform comfortably in extremely cold and/or inclement weather. Students may need to rent or purchase additional equipment for this course.  Introduces four-season backpacking in Alaska. Selection of personal and group safety equipment appropriate for a backpacking trip during any season. Presents trip planning, prevention and assessment of cold injuries, frontcountry and backcountry navigation, avalanche hazard evaluation and rescue techniques. Emphasizes risk assessment and risk management.</p>
<p><b>PER A162</b>                    <b>Beginning Telemark Skiing</b>                    <b>1 CR</b>  Contact Hours: 0.5 + 1  Special Fees.  Special Note: Students may be required to rent or purchase equipment and/or lift tickets for outings. Requires ability to perform comfortably in extremely cold and/or inclement weather.  Introduces the fundamentals of telemark skiing. Covers hazard evaluation, selection of personal ski and safety equipment, recognition and prevention of cold-weather injuries, skiing skills, and ski hill rules.</p>	<p><b>PER A170</b>                    <b>Backpack Alaska</b>                    <b>3 CR</b>  Contact Hours: 1 + 4  Special Fees.  Special Note: Requires good physical condition and ability to function comfortably in inclement weather.  Provides an introduction to backpacking in Alaska. Covers trip planning and selection of personal, group, and safety equipment appropriate for overnight trips. Presents the opportunity during outings to practice hazard evaluation, front and backcountry navigation, and hiking/camping/cooking skills.</p>
<p><b>PER A163</b>                    <b>Beginning Alpine Skiing</b>                    <b>1 CR</b>  Contact Hours: 0.5 + 1  Special Fees.  Special Note: Students may be required to rent or purchase equipment and/or lift tickets for outings. Requires ability to perform comfortably in extremely cold and/or inclement weather.  Introduces the fundamentals of downhill skiing. Covers hazard evaluation, selection of personal ski and safety equipment, recognition and prevention of cold-weather injuries, skiing skills, and ski-hill rules.</p>	

## Course Descriptions

### PER A171 Outdoor Adventure in Alaska 2 CR

Contact Hours: 1 + 2

Special Fees.

Special Note: Requires good physical fitness and ability to function comfortably in inclement weather. Students may need to rent or purchase additional equipment for this course.

Provides an overview of basic outdoor skills commonly used and enjoyed in Alaska. Covers trip preparation, equipment selection and maintenance, introduction to map and compass, and learning to identify risk in the field. Includes season-dependent activities such as day hiking, backpacking, canoeing, rock climbing, cross-country skiing (classic), or winter camping.

### PER A172 Fishing Academy 2 CR

Contact Hours: 1 + 2

Registration Restrictions: Must be 18 years of age or older to enroll.

Grade Mode: Pass/No Pass.

Special Note: Students must be 18 or older to enroll and must abide by all University and course safety rules.

A practical introduction to the basics of fishing, including equipment selection, types of line, lures, and flies, and techniques geared toward Alaska lakes and streams. Includes wildlife safety, basic biology, and "caring for your catch." Emphasizes risk assessment and safety skills.

### PER A177 Nature Observation and Tracking 3 CR

Contact Hours: 1 + 4

Special Fees.

Special Note: Requires the ability to function comfortably in inclement weather.

Introduces fundamentals of recognizing birds and plants as well as observing and tracking Alaskan mammals. Uses extensive reading and written assignments, as well as hands-on application of field techniques, to provide students with a solid, academic foundation for understanding animal behaviors and their signs.

### PER A178 Discovering Wild Plants 1 CR

Contact Hours: 0.5 + 1

Special Fees.

Special Note: Requires ability to function comfortably in inclement weather.

Introduces the diversity of Alaska's flora and its myriad uses. Addresses risk assessment and hazard evaluation, especially in relation to learning to identify and/or use edible, poisonous and medicinal species.

### PER A179 Alaska's Wild Mushrooms 1 CR

Contact Hours: 0.5 + 1

Special Fees.

Special Note: Requires ability to travel off trail and function comfortably in inclement weather.

Focuses on field identification of mushrooms with emphasis on those common to Alaska. Covers identification through drawings, visual guides, macroscopic features, and spore prints. Includes collection techniques, preservation, edible vs. poisonous species and historic use. Addresses risk assessment and hazard evaluation in relation to gathering mushrooms in local environment. Includes field outing.

### PER A181 Crevasse Rescue Techniques 1 CR

Contact Hours: 0.5 + 1

Special Fees.

Special Note: Requires the ability to perform comfortably in extremely cold and/or inclement weather. Field sessions include all-day clinics and may include overnight outings.

Introduces the most commonly used equipment, techniques, and risk associated with crevasse rescue. Provides information for minimizing the chance of a crevasse fall and implementing a successful extrication. Emphasizes risk assessment and technical skill acquisition.

### PER A182 Alaska Winter Survival 3 CR

Contact Hours: 1 + 4

Special Fees.

Special Note: Requires excellent backpacking skills, good physical condition, and the ability to function comfortably in extremely cold and inclement weather.

Introduces the most common risks and challenges encountered in winter survival situations. Emphasizes hazard evaluation, physical and psychological factors that affect survival, and preparation tips. Provides opportunity to practice outdoor skills and survival techniques.

### PER A183 Alaska Marine Survival 1 CR

Contact Hours: 0.5 + 1

Special Fees.

Special Note: Requires excellent backcountry camping skills and the ability to function comfortably in inclement weather. An overnight field outing may be included in this course.

Introduces the most common risks and challenges encountered in a marine survival situation. Emphasizes hazard evaluation, physical and psychological factors that affect survival, and preparation tips that can help prevent worst-case scenarios. Provides opportunity to practice field techniques.

### PER A188 Wellness for Women 3 CR

Contact Hours: 3 + 0

Special Note: Students will apply concepts through physical activities outside of class time.

Introduces basic concepts for wellness including theories and definitions of optimal health. Includes topics such as substance abuse, sexually transmitted diseases, fitness, nutrition, mental health, cardiovascular disease, sexuality, and other significant health issues, with particular emphasis on the needs and concerns of women.

### PER A206 Intermediate Aerobics 1 CR

Contact Hours: 0.5 + 1

Prerequisites: PER A106.

Special Fees.

Presents key concepts related to lifetime personal fitness. Applies intermediate-advanced level exercise routines for improved cardiorespiratory fitness, flexibility and muscular endurance. A wide variety of aerobic exercise routines will be presented, such as step aerobics, lateral training, circuit training, and interval training.

### PER A209 Intermediate Aqua Aerobics 1 CR

Contact Hours: 0.5 + 1

Prerequisites: PER A109.

Special Fees.

Presents key concepts related to lifetime personal fitness. Applies intermediate level aqua exercise routines for improved cardiorespiratory fitness, flexibility, and muscular endurance. A wide variety of aqua aerobic exercise routines will be presented, such as deep water jogging, aerobics to music, circuit training, and interval training. Designed for swimmers and non-swimmers.

### PER A220 Intermediate Yoga 1 CR

Contact Hours: 0.5 + 1

Prerequisites: PER A120.

Special Fees.

Presents intermediate level yoga physical exercises, breathing techniques, meditation, and relaxation exercises.

### PER A223 Intermediate Tai Chi 1 CR

Contact Hours: 0.5 + 1

Prerequisites: PER A123.

Special Fees.

Presents intermediate level Tai Chi exercises designed to improved health, tranquility, energy, and strength.

### PER A224 Intermediate Karate 1 CR

Contact Hours: 0.5 + 1

Prerequisites: PER A124.

Special Fees.

Presents intermediate level Shotokan Karate principles and applications. Training and discipline on the physical, mental, and spiritual levels will be covered.

### PER A225 Intermediate Kung Fu 1 CR

Contact Hours: 0.5 + 1

Prerequisites: PER A125.

Special Fees.

Presents intermediate level Northern Shaolin Kung Fu principles and applications. Training and discipline on the physical, mental, and spiritual levels will be covered.

### PER A226 Intermediate Kendo 1 CR

Contact Hours: 0.5 + 1

Prerequisites: PER A126.

Special Fees.

Presents intermediate level Kendo principles and applications. Training and discipline on the physical, mental, spiritual levels will be covered.

### PER A227 Intermediate Tae Kwon Do 1 CR

Contact Hours: 0.5 + 1

Prerequisites: PER A127.

Special Fees.

Presents intermediate level Tae Kwon Do principles and applications. Training and discipline on the physical, mental, and spiritual levels will be covered.

### PER A230 Intermediate Tennis 1 CR

Contact Hours: 0.5 + 1

Prerequisites: PER A130.

Special Fees.

Emphasizes game strategy and develops intermediate tennis skills. Applies offensive and defensive strategies of tennis through active participation.

<b>PER A231</b> Contact Hours: 0.5 + 1 Prerequisites: PER A131. Special Fees. Emphasizes game strategy and develops intermediate racquetball skills. Applies offensive and defensive strategies of racquetball through active participation.	<b>Intermediate Racquetball</b>	<b>1 CR</b>	<b>PER A244</b> Contact Hours: 0.5 + 1 Prerequisites: PER A144. Special Fees. Emphasizes game strategy and develops intermediate and advanced volleyball skills. Applies offensive and defensive strategies of volleyball through active participation.	<b>Intermediate Volleyball</b>	<b>1 CR</b>
<b>PER A232</b> Contact Hours: 0.5 + 1 Prerequisites: PER A132. Special Fees. Emphasizes game strategy and develops intermediate golf skills. Applies principles of golf through active participation.	<b>Intermediate Golf</b>	<b>1 CR</b>	<b>PER A246</b> Contact Hours: 1 + 2.5 Prerequisites: PER A146. Special Fees. Special Note: Requires ability to function comfortably in inclement weather. Builds on the skills and knowledge gained in Beginning Rock Climbing. Emphasizes risk management skills, learning to build/use a variety of anchors, and ascending and descending techniques. Provides opportunity to practice protection placement and mock lead climbing. Introduces a risk/benefit analysis of lead climbing vs. following.	<b>Intermediate Rock Climbing</b>	<b>2 CR</b>
<b>PER A233</b> Contact Hours: 0.5 + 1 Prerequisites: PER A133. Emphasizes game strategy and develops intermediate bowling skills. Applies game strategies of bowling through active participation.	<b>Intermediate Bowling</b>	<b>1 CR</b>	<b>PER A252</b> Contact Hours: 0.5 + 4.5 Prerequisites: PER A152. Special Fees. Special Note: Participants must be able to demonstrate basic whitewater rafting skills in class II whitewater at the beginning of the course. Requires ability to function comfortably in inclement weather. An overnight field outing will be included in the course. Participants may be required to rent or purchase additional gear. First aid and CPR training is highly recommended. Provides skill development for rafting up to class IV whitewater rivers for those who have basic whitewater rafting skills. Introduces advanced paddle/oar skills, expands on reading water, and teaches advanced boat maneuvering with an emphasis on risk assessment and management.	<b>Intermediate River Rafting</b>	<b>2 CR</b>
<b>PER A234</b> Contact Hours: 0.5 + 1 Prerequisites: PER A134. Special Fees. Develops and refines swimming skills, physical conditioning, and knowledge of training and competition. Designed for intermediate to competitive level swimmers.	<b>Swimming Conditioning</b>	<b>1 CR</b>	<b>PER A253</b> Contact Hours: 0.5 + 4.5 Prerequisites: PER A153. Special Fees. Special Note: Participants must demonstrate proficient sheltered coastal kayaking skills at course start. Requires excellent backcountry camping skills and the ability to function comfortably in inclement weather. Wilderness camping will be included in the course. Participants may be required to purchase or rent additional gear. CPR & First Aid training is highly recommended. Provides foundational open water sea kayaking skills for individuals with sheltered coastal kayaking skills. Introduces open water crossings, paddling around exposed headlands, and exposure to cliffed-out shore lines with limited beach landings. Emphasizes development of efficient strokes, practical self rescue techniques, understanding the marine environment, trip planning and risk assessment and management.	<b>Intermediate Sea Kayaking</b>	<b>2 CR</b>
<b>PER A235</b> Contact Hours: 0.5 + 1 Prerequisites: PER A135. Special Fees. Develops and refines breathing technique and intermediate swimming strokes and diving. Emphasizes personal water safety.	<b>Intermediate Swimming</b>	<b>1 CR</b>	<b>PER A272</b> Contact Hours: 0.5 + 1 Prerequisites: PER A117 or PER A118. Special Fees. Presents key concepts related to lifetime personal fitness. Applies advanced techniques for resistance exercises to strengthen and condition major muscle groups through correct use of variable resistance equipment and free weights.	<b>Advanced Weight Training</b>	<b>1 CR</b>
<b>PER A236</b> Contact Hours: 0.5 + 1 Prerequisites: PER A136. Special Fees. Emphasizes and develops intermediate in-line skating skills and stunts. Applies intermediate level in-line skating skills through active participation.	<b>Intermediate In-Line Skating</b>	<b>1 CR</b>	<b>PER A273</b> Contact Hours: 1 + 2 Prerequisites: PER A117 or PER A118. Special Fees. Expands on key concepts related to strength and power training using the periodization model. Applies designing, planning, and implementing complete strength training programs in lecture and weight room sessions.	<b>Strength Training Through Periodization</b>	<b>2 CR</b>
<b>PER A237</b> Contact Hours: 0.5 + 1 Prerequisites: PER A137. Special Fees. Emphasizes and develops intermediate ice skating skills. Applies intermediate principles of ice skating through active participation.	<b>Intermediate Ice Skating</b>	<b>1 CR</b>	<b>PER A275</b> Contact Hours: 0.5 + 1 Prerequisites: PER A123 and PER A223. Instruction and guided practice in advanced T'ai Chi Ch'uan Yang Long form. Focuses on exercises for the improvement of health, muscle endurance, energy, and relaxation.	<b>Advanced T'ai Chi</b>	<b>1 CR</b>
<b>PER A238</b> Contact Hours: 0.5 + 1 Prerequisites: PER A138. Special Fees. Reinforces the basic skills and knowledge of the sport of fencing with foils and introduces intermediate level movement, skills, and strategies. Applies the intermediate level principles of fencing through active participation.	<b>Intermediate Foil Fencing</b>	<b>1 CR</b>	<b>PER A277</b> Contact Hours: 0.5 + 1 Prerequisites: PER A231. Special Fees. Emphasizes game strategy and develops advanced racquetball skills. Applies advanced offensive and defensive strategies of racquetball through active participation.	<b>Advanced Racquetball</b>	<b>1 CR</b>
<b>PER A241</b> Contact Hours: 0.5 + 1 Prerequisites: PER A141. Special Fees. Emphasizes game strategy and develops intermediate and advanced basketball skills. Applies offensive and defensive strategies of basketball through active participation.	<b>Intermediate Basketball</b>	<b>1 CR</b>			
<b>PER A242</b> Contact Hours: 0.5 + 1 Prerequisites: PER A142. Special Fees. Emphasizes game strategy and develops intermediate and advanced soccer skills. Applies offensive and defensive strategies of soccer through active participation.	<b>Intermediate Soccer</b>	<b>1 CR</b>			
<b>PER A243</b> Contact Hours: 0.5 + 1 Prerequisites: PER A143. Special Fees. Develops intermediate level power skating techniques and hockey skills. Applies defensive and offensive strategies and tactics.	<b>Intermediate Hockey</b>	<b>1 CR</b>			

## Course Descriptions

### PER A278 Advanced Figure Skating 1 CR

Contact Hours: 0.5 + 1  
Prerequisites: PER A237.

Emphasizes and develops intermediate to advanced figure skating skills. Applies advanced principles of ice skating, program development, and choreography.

### PER A280 Power Skating 1 CR

Contact Hours: 0.5 + 1  
Prerequisites: PER A137.

Expands on key concepts related to power skating for improved performance in ice hockey. Applies principles of balance, skating strides, crossovers, and physical conditioning through active participation.

### PER A281 Advanced Hockey 1 CR

Contact Hours: 0.5 + 1  
Prerequisites: PER A243.  
Special Fees.

Emphasizes strategy and develops advanced skating and hockey skills. Applies advanced offensive and defensive strategies of hockey through active participation. Presents winning hockey coaching techniques.

### PER A285 Expedition Glacier School 2 CR

Contact Hours: 1 + 2  
Registration Restrictions: Instructor approval.  
Special Fees.

Special Note: Requires excellent physical condition and the ability to function comfortably in extremely cold and/or inclement weather. A student must attend the shakedown weekend in order to participate in the expedition.

Applies backpacking and mountaineering techniques in a multi-day glacier expedition. Introduces glacier-travel and crevasse-rescue techniques as well as expedition planning. Emphasizes risk assessment and learning to minimize the inherent risks associated with the activity.

### PER A287 Expedition Backpacking 2 CR

Contact Hours: 1 + 2  
Prerequisites: PER A170.  
Special Fees.

Special Note: Requires excellent physical condition and ability to function comfortably in inclement weather. A student must attend the shakedown weekend in order to participate in the expedition.

Provides experienced backpackers with the fundamentals of planning and participating on a multi-day backpacking trip. Emphasizes risk assessment, selection of group members, and importance of group dynamics, route selection, and logistics.

## PETR - Petroleum Technology

*Offered through Kenai Peninsula College*

*156 College Road, Soldotna, Alaska, 99669, (877) 262-0330*

*www.kpc.alaska.edu*

### PETR A155 Blueprint Reading 3 CR

Contact Hours: 3 + 0  
Registration Restrictions: MATH A054 or placement in MATH A055.

Introduces the reading of machine, piping, welding, instrumentation, and process detail drawings. Includes practice in visualization and sketching of isometric drawings.

### PETR A240 Industrial Process Instrumentation III 3 CR

Contact Hours: 3 + 0  
Prerequisites: PRT A144.  
Major Restriction: Must be Industrial Process Instrumentation or Process Technology major.

Registration Restrictions: Degree-seeking Industrial Process Instrumentation or Process Technology students.

Presents details of the installation and application of continuous process instruments in closed feedback control loops. Includes practice of functional check-out procedures on physical hardware. Introduces ladder logic used for discrete control of processes.

### PETR A244 Industrial Process Instrumentation IV 3 CR

Contact Hours: 3 + 0  
Prerequisites: PETR A240.  
Major Restriction: Must be Industrial Process Instrumentation or Process Technology major.

Registration Restrictions: Degree-seeking Industrial Process Instrumentation or Process Technology students.

Explores techniques used in designing and optimizing control loops. Develops methods for testing and optimizing feedback and feed forward control loops, and introduces loop implementation methods in digital control environments.

## PHAR - Pharmacy Technology

*Offered through the Community & Technical College*

*Allied Health Sciences Building (AHS), Room 161, 786-6928*

*www.uaa.alaska.edu/ctc/programs/alliedhealth/pharmacy*

### PHAR A101 Introduction to Pharmacy 3 CR

Contact Hours: 3 + 0  
Special Fees.

Introduces pharmacy practice and the technician's role in various pharmacy settings. Emphasizes the history of pharmacy, pharmacy law and ethics, pharmacy terminology, symbols, and dosage forms.

### PHAR A105 Pharmacology for Technicians I 3 CR

Contact Hours: 3 + 0

Introduces drug terms, definitions, origins and uses with an emphasis on factors affecting drug actions and adverse reactions. Provides overview of pharmacology, pharmacodynamics and pharmacokinetics. Focus on respiratory, GI, urinary, cardiovascular, chemotherapy, nutritional, and CODE blue emergency drugs and carts. This is part 1 of a 2-part course.

### PHAR A107 Pharmacy Calculations 3 CR

Contact Hours: 3 + 0  
Special Fees.

Provides students with the interpretive skills to read, decode and process a variety of prescriptions requiring mathematical computations. Introduces the basic concepts needed to calculate oral, parenteral, pediatric and elderly drug dosages. Calculation skills for interpreting intravenous flow rates, and compounding are also included.

### PHAR A111 Techniques of Pharmacy Practice 3 CR

Contact Hours: 3 + 0  
Special Fees.

Introduces techniques and demonstrations of pharmacy practices including accepting prescriptions and insurance cards, checking for required information, processing, filling, labeling, and completing patient profiles. Concentrates on compounding, mixing, IV preparation, and sterile techniques.

### PHAR A115 Pharmacology for Technicians II 3 CR

Contact Hours: 3 + 0  
Special Fees.

Introduces drug terms, definitions, origins and uses with an emphasis on factors affecting drug actions and adverse reactions. Focus on anti-infectives, pain relievers, muscle relaxants, other central nervous system, hormone, diabetic, and topical medications.

### PHAR A192 Topics in Pharmacy 1 CR

Contact Hours: 1 + 0  
Grade Mode: Pass/No Pass.  
Special Fees.

Explores current issues in the field of pharmacy. Uses discussion format enhanced by speakers, role-playing, problem solving, case studies and current news articles in pharmacy. Emphasizes ethical principles and their relationship to the technical applications of the practice of pharmacy.

## PHIL - Philosophy

*Offered through the College of Arts and Sciences*

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

*www.uaa.alaska.edu/philosophy*

### PHIL A101 Introduction to Logic 3 CR

Contact Hours: 3 + 0

Course Attributes: UAA GER Humanities Requirement.

Develops formal and informal reasoning skills, introduces deductive logic via statement logic, analyzes arguments and introduces scientific and inductive reasoning, reviews common fallacies and methods for evaluating arguments.

### PHIL A201 Introduction to Philosophy 3 CR

Contact Hours: 3 + 0

Course Attributes: UAA GER Humanities Requirement.

Introduces works of major influential thinkers, both ancient and modern, focusing on the Western philosophical tradition. Emphasizes central problems of knowledge, reality, and good and evil.

### PHIL A211 History of Philosophy I 3 CR

Contact Hours: 3 + 0

Course Attributes: UAA GER Humanities Requirement.

Survey of primarily Western philosophy from the pre-Socratic era through the late Middle Ages. Traces development of scientific, metaphysical, epistemological and ethical thought with emphasis on pivotal historical figures and debates.

<p><b>PHIL A212 History of Philosophy II 3 CR</b> Contact Hours: 3 + 0 Course Attributes: UAA GER Humanities Requirement. Survey of philosophy from the Scientific Revolution through German Idealism (Modern Period). Traces the development of scientific, metaphysical, epistemological and ethical thought with emphasis on historical texts.</p> <p><b>PHIL A231 Truth, Beauty, and Goodness 3 CR</b> Contact Hours: 3 + 0 Prerequisites: (ENGL A111 or concurrent enrollment). Crosslisted with: LSIC A231. Integrated approach to the study of critical and normative thinking, including: standards of truth in logic, mathematics, and science; standards of ethical goodness, and standards for the critical appraisal of art and the beautiful.</p> <p><b>PHIL A301 Ethics 3 CR</b> Contact Hours: 3 + 0 Prerequisites: ENGL A211 with minimum grade of C or ENGL A212 with minimum grade of C or ENGL A213 with minimum grade of C or ENGL A214 with minimum grade of C. Course Attributes: UAA GER Humanities Requirement. An introduction to major theories in normative ethics and metaethics, and the arguments of important moral philosophers. Emphasis on critical reasoning, as well as evaluation and analysis of arguments. Includes the application of ethical theory to contemporary moral issues, such as rights and distributive justice, environmental and animal issues, abortion, terrorism, and euthanasia.</p> <p><b>PHIL A302 Biomedical Ethics 3 CR</b> Contact Hours: 3 + 0 Registration Restrictions: Junior standing. An in-depth exploration of current bioethical issues affecting the delivery of health care services. Theories of ethics and related principles are explored as a basis for professional decision-making and public policy determination. The focus of the course is the process of ethical inquiry and its relevance for contemporary health practices, research and education.</p> <p><b>PHIL A303 Environmental Ethics 3 CR</b> Contact Hours: 3 + 0 Crosslisted with: ENVI A303. Historical and comparative analysis of Western, non-Western, indigenous and Native American philosophies, concerning the intrinsic, aesthetic and use values of nature and the land. Contemporary environmental ethics, including deep ecology, the land ethic, ecofeminism, and animal rights theories will be examined in detail. There will also be a focus on the ethical issues surrounding contemporary environmental controversies, such as land management, wildlife management, wilderness designation, sustainability, biodiversity and species preservation, private property and public commons, environmental racism, human overpopulation, development versus preservation, laboratory use of animals, vivisection, animal farming, subsistence, and sports hunting.</p> <p><b>PHIL A304 Business Ethics 3 CR</b> Contact Hours: 3 + 0 Registration Restrictions: Junior standing. Examines moral issues raised by contemporary business practice. Topics include moral justifications and critiques of the market system, the nature and scope of corporate responsibility, ethical issues in the workplace (e.g. whistleblowing, sexual harassment, affirmative action, etc.), and environmental implications of business practices.</p> <p><b>PHIL A309 Philosophy of Mind 3 CR</b> Contact Hours: 3 + 0 An examination of the mind/body problem, the nature of consciousness, self-knowledge, mental content, mental causation, cognitive science, personal identity, and agency.</p> <p><b>PHIL A313 Eastern Philosophy and Religion 3 CR</b> Contact Hours: 3 + 0 Prerequisites: ENGL A211 with minimum grade of C or ENGL A212 with minimum grade of C or ENGL A213 with minimum grade of C or ENGL A214 with minimum grade of C. Course Attributes: UAA GER Humanities Requirement. Study of Eastern philosophical and religious traditions, particularly Hinduism, Buddhism, Daoism and Confucianism. Includes studying basic concepts, tenets and practices of these traditions and related modern developments.</p> <p><b>PHIL A314 Western Religions 3 CR</b> Contact Hours: 3 + 0 Prerequisites: ENGL A211 with minimum grade of C or ENGL A212 with minimum grade of C or ENGL A213 with minimum grade of C or ENGL A214 with minimum grade of C. Course Attributes: UAA GER Humanities Requirement. Study of three Western monotheisms—Judaism, Christianity, and Islam. Covers basic tenets, practices and histories of the monotheisms. Examines the intersections of religion with contemporary concerns such as gender, ethnicity, and violence.</p>	<p><b>PHIL A317 Metaphysics 3 CR</b> Contact Hours: 3 + 0 Registration Restrictions: 6 credits with minimum grade of C from PHIL A101, A201, A211, A212, or A301. Current issues in metaphysics, including topics such as free will, universals, space and time, modality and essentialism with an emphasis on critical reasoning, argument evaluation and analysis.</p> <p><b>PHIL A318 Epistemology 3 CR</b> Contact Hours: 3 + 0 Registration Restrictions: 6 credits with minimum grade of C from PHIL A101, A201, A211, A212, or A301. Traditional and contemporary issues in epistemology including, but not limited to, skepticism, the structure of knowledge and justification, epistemic closure principles, the sources of justification (memory, testimony, and perception), internalist and externalist theories of justification, virtue epistemology, naturalized epistemology and the a priori, the social and political dimensions of knowledge, and epistemic contextualism and invariantism.</p> <p><b>PHIL A321 Philosophy of Religion 3 CR</b> Contact Hours: 3 + 0 Prerequisites: PHIL A101 with minimum grade of C or PHIL A201 with minimum grade of C or PHIL A211 with minimum grade of C or PHIL A212 with minimum grade of C or PHIL A301 with minimum grade of C. An advanced study of current issues in philosophy of religion including topics such as the existence of God, the nature of divine attributes, the problem of evil, science and religion, the meaningfulness of religious language, the epistemology of religious experience, and non-western perspectives on religion, with an emphasis on critical reasoning, argument evaluation, and analysis.</p> <p><b>PHIL A350 Contemporary Social and Political Philosophy 3 CR</b> Contact Hours: 3 + 0 Prerequisites: ENGL A111 or ENGL A211 or ENGL A212. Evaluates the philosophical merits of contemporary (20th Century to present) theories of justice, government, citizenship, culture, and society. Theories are explored in light of their foundations in ethics, epistemology, metaphysics, philosophy of language, and theories of rationality. Topics include, but are not limited to, the justification of human rights, democracy, economic social structures; and critical theories of society.</p> <p><b>PHIL A390 Selected Topics in Philosophy 3 CR</b> Contact Hours: 3 + 0 Registration Restrictions: Upper-division standing. Special Note: Course can be repeated for credit with a different subtitle. Detailed study of a selected topic in philosophy.</p> <p><b>PHIL A400 Ethics, Community, and Society 3 CR</b> Contact Hours: 3 + 0 Prerequisites: PHIL A301. Registration Restrictions: Completion of GER Tier 1 (Basic college-level skills) courses and junior standing (at least 60 credit hours). Course Attributes: UAA GER Integrative Capstone. An integrated study of a selected topic on a global ethical issue and the interests and responsibilities of individuals, communities and societies. Topics may vary from semester to semester.</p> <p><b>PHIL A401 Aesthetics 3 CR</b> Contact Hours: 3 + 0 An investigation into the nature of art and the creative process from both an historical and theoretical perspective, utilizing especially the philosophy of the ancient Greeks, the Romantic thinkers and contemporary semiotics.</p> <p><b>PHIL A405 Professional Ethics 3 CR</b> Contact Hours: 3 + 0 Registration Restrictions: Junior standing. Study of the common ethical concerns of professional practices, including professional-client relationships, confidentiality, integrity, the role of professional codes, conflicts of interest, conflicts of duties, questions of responsibility, and the concept of a profession. Includes an account of professional virtues, and an analysis of moral decision-making. Case studies and practical examples selected from various professions.</p> <p><b>PHIL A406 Philosophy of Law 3 CR</b> Contact Hours: 3 + 0 Registration Restrictions: JUST A250 or 6 credits in Philosophy, and Junior standing. Considers various philosophical accounts of the nature of law and grounds of its authority; the relationship between law and morality; connections between law and political ideals such as liberty, equality, and economic well-being; and methods of constitutional interpretation. Addresses contemporary controversies in the law such as civil disobedience, criminal responsibility, capital punishment, property rights, religious freedom, freedom of speech, and affirmative action.</p>
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## Course Descriptions

- PHIL A415 Feminist Philosophy 3 CR**  
Contact Hours: 3 + 0  
Registration Restrictions: WS A200 or 6 credits in philosophy, and Junior standing.  
Examines women's position in the writings of prominent thinkers in the Western philosophical canon; contemporary theories concerning the nature of gender and its intersection with race, class, and sexuality; and feminist contributions to philosophical inquiry in ethics, social/political philosophy, theories of knowledge, and/or the philosophy of science.
- PHIL A421 Philosophy of the Sciences 3 CR**  
Contact Hours: 3 + 0  
Registration Restrictions: Junior or Senior standing.  
A general introduction to the philosophical problems common to the physical, biological, behavioral, and social sciences, focusing on issues concerning method, epistemology, modes of explanation, and the differences between the natural and the human sciences.
- PHIL A423 Advanced Ethical Theory 3 CR**  
Contact Hours: 3 + 0  
Prerequisites: PHIL A101 with minimum grade of C and PHIL A201 with minimum grade of C and PHIL A211 with minimum grade of C and PHIL A212 with minimum grade of C and PHIL A301 with minimum grade of C.  
Critical issues in metaethics and normative ethics. Examines the nature of ethical claims, the basis for their authority, and the implications of such debates for normative ethics.
- PHIL A490 Topics in Contemporary Philosophy 3 CR**  
Contact Hours: 3 + 0  
Prerequisites: PHIL A101 with minimum grade of C and PHIL A201 with minimum grade of C and PHIL A211 with minimum grade of C and PHIL A212 with minimum grade of C and PHIL A301 with minimum grade of C.  
Registration Restrictions: Junior standing.  
An intensive and detailed study of a topic in contemporary philosophy in a seminar format.
- PHIL A492 Seminar on an Enduring Philosopher 3 CR**  
Contact Hours: 3 + 0  
Prerequisites: PHIL A101 with minimum grade of C and PHIL A201 with minimum grade of C and PHIL A211 with minimum grade of C and PHIL A212 with minimum grade of C and PHIL A301 with minimum grade of C.  
Registration Restrictions: Junior standing.  
An in depth investigation of the historical background to and philosophical content of an important philosopher's thought. Philosophers studied may include Socrates, Plato, Aristotle, Augustine, Aquinas, Hobbes, Descartes, Locke, Hume, Kant, Nietzsche, or many others.
- PHIL A495 Service Learning in Applied Ethics 3 CR**  
Contact Hours: 3 + 0  
Prerequisites: PHIL A101 with minimum grade of C and PHIL A201 with minimum grade of C and PHIL A211 with minimum grade of C and PHIL A212 with minimum grade of C and PHIL A301 with minimum grade of C.  
Registration Restrictions: Junior standing.  
Work with a community partner in an area related to applied ethics. A service learning project will be identified and coordinated by a faculty committee in cooperation with a community partner, as related to the student's interests. Students will use the project as a means of applying and reflecting on relevant ethical concepts, decision-making, and practical reasoning skills.
- PHIL A498 Senior Research Project 3 CR**  
Contact Hours: 3 + 0  
Prerequisites: PHIL A101 with minimum grade of C and PHIL A201 with minimum grade of C and PHIL A211 with minimum grade of C and PHIL A212 with minimum grade of C and PHIL A301 with minimum grade of C.  
Registration Restrictions: Senior standing, nine credits of philosophy in addition to the prerequisites, and faculty permission.  
Senior-level course in which the student will engage in independent research on a topic of his or her choosing under the supervision of a faculty member. The course culminates with the completion of a research paper of significant length prepared to publication standards.
- PHIL A607 Ethics in Clinical Medicine 1 CR**  
Contact Hours: 1 + 0  
Registration Restrictions: Admission to the WWAMI program or the MS program in Nursing Science, or with the consent of the instructor.  
Grade Mode: Pass/No Pass.  
Focuses on ethical issues in medical training and clinical practice, as well as on core topics in biomedical ethics.

## PHYS - Physics

*Offered through the College of Arts and Sciences*

*ConocoPhillips Integrated Sciences Building (CPSB), Room 101, 786-1238*

*<http://salt.uua.alaska.edu>*

- PHYS A101 Physics for Poets 3 CR**  
Contact Hours: 3 + 0  
Prerequisites: MATH A105.  
Course Attributes: UAA GER Natural Sciences Requirement.  
Special Note: Does not fulfill the Natural Sciences component of the CAS B.S. Degree.  
Introduces liberal arts students to the theory, methods, and techniques of physics, the most basic of the sciences. Provides broad exposure to many aspects of physics, including celestial mechanics, quantum theory, relativity, and cosmology, as well as the scientific method.
- PHYS A115 Physical Science 3 CR**  
Contact Hours: 3 + 0  
Registration Restrictions: Placement into MATH A105 or higher.  
Exposes students to basic concepts in physics. Presents general knowledge of science rather than an in-depth study of any one field.
- PHYS A115L Physical Science Lab 1 CR**  
Contact Hours: 0 + 3  
Prerequisites: (PHYS A115 or concurrent enrollment).  
Exposes students to basic concepts in physics labs. Presents general knowledge of science rather than an in-depth study of any one field.
- PHYS A123 Basic Physics I 3 CR**  
Contact Hours: 3 + 0  
Prerequisites: MATH A105.  
Registration Restrictions: High school trigonometry.  
Course Attributes: UAA GER Natural Sciences Requirement.  
Non-calculus introduction to mechanics, fluids, and thermodynamics. Emphasizes motion, forces, gravitation, fluid motion, and laws of thermodynamics. Limited emphasis on historical development of physics.
- PHYS A123L Basic Physics I Laboratory 1 CR**  
Contact Hours: 0 + 3  
Prerequisites: (PHYS A123 or concurrent enrollment) and MATH A105.  
Registration Restrictions: High school trigonometry.  
Course Attributes: UAA GER Natural Sciences Lab Only.  
Special Fees.  
Introductory physics laboratory, with experiments in mechanics, fluids, and thermodynamics.
- PHYS A124 Basic Physics II 3 CR**  
Contact Hours: 3 + 0  
Prerequisites: PHYS A123 with minimum grade of C.  
Course Attributes: UAA GER Natural Sciences Requirement.  
Non-calculus introduction to electricity and magnetism, waves, optics, light, some modern and nuclear physics. Limited emphasis on historical development of physics.
- PHYS A124L Basic Physics II Laboratory 1 CR**  
Contact Hours: 0 + 3  
Prerequisites: PHYS A123 with minimum grade of C and PHYS A123L with minimum grade of C and (PHYS A124 or concurrent enrollment).  
Course Attributes: UAA GER Natural Sciences Lab Only.  
Special Fees.  
Introductory physics laboratory, with experiments in electricity and magnetism, waves, and optics.
- PHYS A130 Survey of College Physics 3 CR**  
Contact Hours: 3 + 0  
Prerequisites: MATH A108.  
Introduction to core principles of physics in classical mechanics, waves, electricity and magnetism, and optics. Specifically designed to prepare students for entry into calculus based physics.
- PHYS A211 General Physics I 3 CR**  
Contact Hours: 3 + 0  
Prerequisites: MATH A200 with minimum grade of C and (MATH A201 or concurrent enrollment) and PHYS A130 with minimum grade of C.  
Registration Restrictions: If PHYS A130 prerequisite is not satisfied, then a passing score on department exam is required.  
Course Attributes: UAA GER Natural Sciences Requirement.  
Calculus-based course covering classical mechanics (statics and dynamics of translational and rotational motion), fluids, elasticity, and introduction to thermodynamics.



<b>PHYS A211L</b>	<b>General Physics I Laboratory</b>	<b>1 CR</b>
Contact Hours: 0 + 3 Prerequisites: (PHYS A211 with minimum grade of C or concurrent enrollment). Registration Restrictions: If PHYS A211 is taken from another institution, it must be completed prior to taking PHYS A211L. Course Attributes: UAA GER Natural Sciences Lab Only. Special Fees. Calculus-based introductory physics laboratory, with experiments in computerized data collection and analysis, mechanics, waves, elasticity, and wave motion.		
<b>PHYS A211R</b>	<b>General Physics I Problem Solving</b>	<b>1 CR</b>
Contact Hours: 0 + 1.5 Corequisite: PHYS A211. Grade Mode: Pass/No Pass. Special Note: This course does not meet General Education Requirements. Techniques of problem solving for material covered in PHYS A211. Includes student discussion and presentation of solutions.		
<b>PHYS A212</b>	<b>General Physics II</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: MATH A201 with minimum grade of C and (MATH A202 or concurrent enrollment) and PHYS A211 with minimum grade of C. Course Attributes: UAA GER Natural Sciences Requirement. Calculus-based course emphasizing basic electromagnetic theory, waves, fundamentals of geometric and physical optics, and light.		
<b>PHYS A212L</b>	<b>General Physics II Laboratory</b>	<b>1 CR</b>
Contact Hours: 0 + 3 Prerequisites: (PHYS A212 with minimum grade of C or concurrent enrollment). Registration Restrictions: If PHYS A 212 is taken from another institution, it must be completed prior to taking PHYS A212L. Course Attributes: UAA GER Natural Sciences Lab Only. Special Fees. Calculus-based introductory physics laboratory, with experiments in electric and magnetic fields, geometric and physical optics, and light.		
<b>PHYS A212R</b>	<b>General Physics II Problem Solving</b>	<b>1 CR</b>
Contact Hours: 0 + 1.5 Corequisite: PHYS A212. Grade Mode: Pass/No Pass. Special Note: This course does not meet General Education Requirements. Techniques of problem solving for material covered in PHYS A212. Includes student discussion and presentation of solutions.		
<b>PHYS A303</b>	<b>Modern Physics</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: MATH A302 with minimum grade of C and PHYS A212 with minimum grade of C. Introduction to modern physics, primarily special relativity and quantum mechanics. Applications of these topics to the quantum structure of atoms, molecules, and solids; lasers; nuclear/particle physics and cosmology.		
<b>PHYS A311</b>	<b>Intermediate Classical Mechanics</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: MATH A302 with minimum grade of C and PHYS A212 with minimum grade of C. Newtonian, Lagrangian, and Hamiltonian mechanics, dynamics of systems of particles and rigid bodies.		
<b>PHYS A314</b>	<b>Electromagnetics</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: PHYS A212 and PHYS A212L and MATH A302. Crosslisted with: EE A314. Electromagnetic theory and applications. Static fields in free space and material media; steady current systems and associated magnetic effects. Includes magnetostatics, Maxwell's Equations, electromagnetic radiation, transmission lines and relativity.		
<b>PHYS A320</b>	<b>Simulation of Physical Systems</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: MATH A202 and PHYS A124 or PHYS A212. Special Fees. Introduction to methods of computer simulation with diverse applications in physics such as numerical integration of Newton's equation, cellular automata, random walks, Monte Carlo methods, percolation and the dynamics of many body systems. No prior programming experience is required.		
<b>PHYS A324</b>	<b>Electromagnetics II</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: [EE A314 or PHYS A314] and MATH A302. Crosslisted with: EE A324. Use of Maxwell's equations in analysis of plane wave propagation, wave reflection, radiation and antennas, waveguides, cavity resonators, transmission lines, and radio propagation.		

<b>PHYS A403</b>	<b>Quantum Mechanics</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: [CHEM A332 with minimum grade of C or PHYS A303 with minimum grade of C] and MATH A314 with minimum grade of C. Fundamentals of quantum mechanics, including applications to the hydrogen atom, particle spin, and perturbation theory.		
<b>PHYS A413</b>	<b>Statistical and Thermal Mechanics</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: CHEM A331 with minimum grade of C or PHYS A212 with minimum grade of C. Principles of statistical mechanics and thermodynamics, with applications.		
<b>PHYS A456</b>	<b>Nonlinear Dynamics and Chaos</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: MATH A202 with minimum grade of C and [PHYS A124 with minimum grade of C or PHYS A212 with minimum grade of C]. Registration Restrictions: Completion of GER Tier 1 (basic college-level skills) courses and junior standing. Crosslisted with: BIOL A456 and CHEM A456. Course Attributes: UAA GER Integrative Capstone. An introduction to nonlinear dynamics and chaos. Concrete examples from physics, biology, chemistry, and engineering are used to develop analytical methods and geometric intuition. Topics covered include phase plane analysis, iterated maps, fractals, and strange attractors.		
<b>PHYS A498</b>	<b>Individual Research</b>	<b>1-6 CR</b>
Contact Hours: 0 + 3-18 Registration Restrictions: Department permission. Special Note: May be repeated for a maximum of 6 credits. Research projects to be arranged with individual faculty members who will direct the research program.		

## PM - Project Management

*Offered through the School of Engineering  
University Center (UC), Room 155, 786-1924  
<http://soe.uua.alaska.edu/esp>*

<b>PM A601</b>	<b>Project Management Fundamentals</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Graduate level standing. Special Fees. Special Note: It is highly recommended that PM A601 be taken in the first semester. Fundamental concepts of project process, stakeholders and organization environment necessary for successful project management. Team-based term projects will be developed, discussed, and presented. Major project management software will be introduced.		
<b>PM A610</b>	<b>Project Scope Management</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Graduate level standing. Special Fees. Project methods, tools, and techniques utilized to plan and define scope of work, verify and manage scope, measure project scope against the project plan, and change scope are emphasized. Elements crucial to initiation, selection, and authorization of the project are examined.		
<b>PM A612</b>	<b>Project Time Management</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Graduate level standing. Special Fees. Advanced project time management processes utilized to ensure on-time project completion. Processes include defining project activities, sequencing activities, estimating activity duration, and developing and controlling the project schedule. Project scheduling software will be utilized in these processes.		
<b>PM A614</b>	<b>Project Cost Management</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Graduate level standing. Special Fees. Advanced cost management process and procedures utilized to ensure project completion is within budget. Cost estimating, WBS, scheduling, resource planning, accounting interface, cost budgeting, cost and schedule integration, and cost control are examined.		

## Course Descriptions

- PM A616 Project Quality Management 3 CR**  
Contact Hours: 3 + 0  
Registration Restrictions: Graduate level standing.  
Special Fees.  
Examination and implementation of contemporary team-based quality leadership. Major emphasis will be placed on understanding the philosophy and metrics for building and maintaining team-based continuous quality improvement. Special focus will be placed on developing an organizational climate for continuous quality leadership in public, non-profit, and private sector service-based enterprises.
- PM A620 Project Human Resource Management 3 CR**  
Contact Hours: 3 + 0  
Registration Restrictions: Graduate level standing.  
Special Fees.  
Covers the processes required to make effective use of people involved with the project. This forum- or discussion-style course is intended to open students to the wide variety of subject matter that will ultimately form the basis of their personal tool kit. Topics will include leadership, team leadership, delegating, motivation, performance measurement and reward systems, innovation and creativity, communications, and management systems.
- PM A622 Project Communications Management 3 CR**  
Contact Hours: 3 + 0  
Registration Restrictions: Graduate level standing.  
Special Fees.  
Advanced communication processes and techniques used to successfully manage the project on time, within budget, and to the satisfaction of the customer. Includes compilation, distribution, storage, and disposing of project information.
- PM A624 Project Risk Management 3 CR**  
Contact Hours: 3 + 0  
Registration Restrictions: Graduate level standing.  
Special Fees.  
Examines methods and processes of planning for, identifying, assessing, monitoring, and responding to project risk. Qualitative and quantitative risk analysis procedures, including decision free analysis, risk simulation, risk ranking, and risk responding techniques.
- PM A626 Project Procurement Management 3 CR**  
Contact Hours: 3 + 0  
Registration Restrictions: Graduate level standing.  
Special Fees.  
Procurement management processes for project planning, solicitation, source selection, contract administration, and contract closeout are presented.
- PM A650 Information Technology Project Management 3 CR**  
Contact Hours: 3 + 0  
Prerequisites: PM A601.  
Level Restriction: Must be Graduate - UAA level.  
Registration Restrictions: Graduate academic standing and PM departmental approval  
Special Fees.  
Advanced evaluation, selection, application, and assessment of Information Technology Project Management approaches, methodologies, processes, and measurements and control techniques to improve the strategic and operational performance of IT projects in organizations and enterprises.
- PM A651 Advanced Construction Project Management 3 CR**  
Contact Hours: 3 + 0  
Prerequisites: PM A601.  
Level Restriction: Must be Graduate - UAA level.  
Registration Restrictions: Graduate level standing and PM Department approval.  
Special Fees.  
Advanced application of project management principles and processes used in the strategic selection, planning and management of construction and development projects from concept through operation. Identification, selection and application of field engineering systems and procedures to effectively meet construction project objectives.
- PM A685 Project Management Case Study and Research 6 CR**  
Contact Hours: 6 + 0  
Registration Restrictions: Graduate level standing and instructor's permission.  
Special Fees.  
Team-based case studies of actual project management problems that should be identified in the students' workplace and will result in a written report. The report will include recommendations for action regarding the problem.
- PM A698 Individual Research 3-6 CR**  
Contact Hours: 3-6 + 0  
Registration Restrictions: Instructor approval.  
Special Fees.  
A project to be designed between the student and faculty members to allow the opportunity to pursue special advanced interests in project management at the M.S. level.

## PMED - Paramedical Technology

*Offered through Kenai Peninsula College, Kenai River Campus  
156 College Road, Soldotna, Alaska 99669, (877) 262-0330  
[www.kpc.alaska.edu/academics/paramedical.html](http://www.kpc.alaska.edu/academics/paramedical.html)  
and*

*Offered through Matanuska-Susitna College  
P.O. Box 2889, Palmer, Alaska 99645, (907) 746-9329  
[www.matsu.alaska.edu/paramedic](http://www.matsu.alaska.edu/paramedic)*

- PMED A241 Paramedicine I 8 CR**  
Contact Hours: 7 + 2  
Prerequisites: BIOL A111 with minimum grade of C and BIOL A111L and BIOL A112 with minimum grade of C and BIOL A112L.  
Registration Restrictions: Current Alaska EMT-1 or National Registry EMT-Basic; Acceptance into the PMED Program.  
Corequisite: PMED A242.  
Applies the knowledge and skills of airway management and ventilation while integrating pathophysiological principles and assessment findings to formulate impressions and implement treatment plans needed while caring for patients who have suffered an acute injury or illness.
- PMED A242 Clinical Rotation I 4 CR**  
Contact Hours: 0 + 8  
Prerequisites: BIOL A111 with minimum grade of C and BIOL A111L and BIOL A112 with minimum grade of C and BIOL A112L.  
Registration Restrictions: Current Alaska EMT-1 or National Registry EMT-Basic; Acceptance into the PMED Program.  
Corequisite: PMED A241.  
Grade Mode: Pass/No Pass.  
Paramedic skills are performed in acute care settings.
- PMED A251 Paramedicine II 8 CR**  
Contact Hours: 7 + 2  
Prerequisites: PMED A241 and PMED A242.  
Corequisite: PMED A252.  
Integrates pathophysiological principles and assessment findings to formulate impressions and implement treatment plans needed when caring for trauma patients, and patients with special needs.
- PMED A252 Clinical Rotation II 4 CR**  
Contact Hours: 0 + 8  
Prerequisites: PMED A241 and PMED A242.  
Corequisite: PMED A251.  
Grade Mode: Pass/No Pass.  
Paramedic skills are performed in hospital settings, specifically in emergency departments, operating rooms, intensive care/critical care units, labor and delivery units, pediatric units, and psychiatric wards.
- PMED A261 Paramedicine III 8 CR**  
Contact Hours: 7 + 2  
Prerequisites: PMED A251 and PMED A252.  
Corequisite: PMED A262.  
Integrates pathophysiological principles and assessment findings to formulate impressions and implement treatment plans needed when caring for medical patients. This course further incorporates assessment-based management and vehicle operations.
- PMED A262 Clinical Rotation III 4 CR**  
Contact Hours: 0 + 8  
Prerequisites: PMED A251 and PMED A252.  
Corequisite: PMED A261.  
Grade Mode: Pass/No Pass.  
Paramedic skills are performed in hospital settings, specifically in emergency departments, operating rooms, intensive care/critical care units, labor and delivery units, pediatric units, psychiatric wards, and on air ambulances.
- PMED A295 Paramedic Internship 12 CR**  
Contact Hours: 0 + 36  
Prerequisites: PMED A261 and PMED A262.  
Registration Restrictions: All PMED Major and AAS General Degree Education Requirements must be completed prior to registration.  
Grade Mode: Pass/No Pass.  
Pre-hospital field experience under the guidance of a paramedic preceptor on an advanced life support ambulance. Interns perform all aspects of paramedic care.

## PRPE - Preparatory English

*Offered through the Community and Technical College  
Beatrice McDonald Hall (BMH), Room 121, 786-6856  
www.uaa.alaska.edu/ctc/programs/cpds*

### PRPE A050 ESL Basic Conversation Skills 3 CR

Contact Hours: 3 + 0

Special Note: Student entering this course must have an advising slip signed by faculty. Call the Advising and Testing Center for appointment times. May be repeated one time for credit.

For high-level beginning to low-level intermediate students. Improves vocabulary acquisition and usage and the ability to communicate orally in everyday and academic situations by developing Standard American English language listening and speaking skills.

### PRPE A051 ESL Basic Reading and Writing 3 CR

Contact Hours: 3 + 0

Special Note: Student entering this course must have an advising slip signed by faculty. Call the Advising and Testing Center for appointment times. May be repeated one time for credit.

For high-level beginning to low-level intermediate students. Emphasizes Standard American English basic grammar rules, improves writing ability, and increases reading comprehension in academic and everyday situations. Provides instruction in formatting written work, word processing, and using the dictionary as a grammar resource.

### PRPE A054 Learning Strategies 1-3 CR

Contact Hours: 1-3 + 0

Registration Restrictions: Appropriate score on reading placement test.

Grade Mode: Pass/No Pass.

Special Fees.

Presents basic learning strategies. Develops time management, learning styles, textbook study, note taking, and test taking skills.

### PRPE A070 Basic Reading 2-4 CR

Contact Hours: 2-4 + 0

Registration Restrictions: Appropriate score on English placement test.

Special Fees.

Special Note: Concurrent enrollment in PRPE A080 is strongly recommended.

Improves basic reading skills with guided, structured practice in vocabulary, comprehension, and reading flexibility.

### PRPE A072 Individualized Reading Lab 1-3 CR

Contact Hours: 0 + 2-6

Registration Restrictions: Appropriate score on reading placement test.

Grade Mode: Pass/No Pass.

Special Fees.

Special Note: May be repeated for a maximum of 3 credits.

Provides individualized instruction in basic reading skills, text comprehension, vocabulary development, dictionary skills, and readjustment of reading rate, in an open lab format.

### PRPE A074 Vocabulary Skill Building 1-3 CR

Contact Hours: 1-3 + 0

Prerequisites: ASSET Reading Skills with score of 30.

Provides tools for vocabulary growth. Includes word recognition drills, practice exercises, writings, word roots, prefixes, and origins, use of the dictionary, and word searches on the computer.

### PRPE A075 Speed Reading 1-3 CR

Contact Hours: 1-3 + 0

Registration Restrictions: Appropriate score on reading placement test.

Grade Mode: Pass/No Pass.

Special Fees.

Introduces skills to increase reading speed and comprehension. Presents techniques for efficient reading of different types of material.

### PRPE A076 Reading Strategies 3 CR

Contact Hours: 3 + 0

Prerequisites: COMPASS Reading Skills with score of 62 or Accuplacer-Reading Comp with score of 055.

Registration Restrictions: Appropriate score on reading placement test.

Special Fees.

Provides basic strategies for reading comprehension, vocabulary development, and textbook skills necessary for success in freshman college classes.

### PRPE A080 Basic Writing 2-4 CR

Contact Hours: 2-4 + 0

Prerequisites: [COMPASS E-Write (1-12 scale) with score of 04 and COMPASS Reading Skills with score of 50] or [Accuplacer-Reading Comp with score of 040 and Accuplacer-Sentence Skills with score of 040].

Registration Restrictions: Appropriate score on English placement test.

Special Fees.

Special Note: Concurrent enrollment in PRPE A070 is strongly recommended.

Improves basic writing skills to develop sentences and paragraphs that conform to Standard American English.

### PRPE A082 Refresher Writing Lab 1-3 CR

Contact Hours: 0.5-1.5 + 1-3

Prerequisites: ASSET Writing Skills with score of 30.

Grade Mode: Pass/No Pass.

Special Fees.

Special Note: May be repeated for a maximum of 6 credits.

Provides individualized instruction in basic writing skills for school, work, personal, or creative development.

### PRPE A084 Sentence Skills 1-3 CR

Contact Hours: 1-3 + 0

Registration Restrictions: Appropriate score on English placement test.

Special Fees.

Supports students in composition courses. Provides tools for improving sentences that conform to Standard American English. Focuses on common sentence errors for accuracy in drafting and editing.

### PRPE A086 Writing Strategies 3 CR

Contact Hours: 3 + 0

Prerequisites: [COMPASS E-Write (1-12 scale) with score of 06 and COMPASS Reading Skills with score of 50] or [Accuplacer-Reading Comp with score of 055 and Accuplacer-Sentence Skills with score of 060].

Registration Restrictions: Appropriate score on English placement test.

Special Fees.

Introduces composition of paragraphs and short essays that conform to Standard American English for college writing. Emphasizes basic reading skills to enhance students' writing. Reviews the basics of grammar, effective sentences, and sentence combining.

### PRPE A105 Introduction to College Study Skills 1-3 CR

Contact Hours: 1-3 + 0

Prerequisites: PRPE A076 with minimum grade of C or COMPASS Reading Skills with score of 75.

Registration Restrictions: If prerequisite is not satisfied, then appropriate score on reading placement test is required.

Special Fees.

Introduces study skills necessary for success in college-level courses. Presents strategies for information processing, lecture and textbook note-taking, and test-taking in academic settings.

### PRPE A107 Introduction to College Reading 3 CR

Contact Hours: 3 + 0

Prerequisites: PRPE A076 with minimum grade of C or COMPASS Reading Skills with score of 75 or Accuplacer-Reading Comp with score of 070.

Registration Restrictions: If prerequisite is not satisfied, then appropriate score on reading placement test is required.

Special Fees.

Improves literal and critical reading skills, academic vocabulary, and textbook comprehension and retention. Explores the connection between reading and writing needed for success in college classes.

### PRPE A108 Introduction to College Writing 3 CR

Contact Hours: 3 + 0

Prerequisites: [PRPE A076 with minimum grade of C and PRPE A086 with minimum grade of C] or [COMPASS E-Write (1-12 scale) with score of 08 and COMPASS Reading Skills with score of 75] or [Accuplacer-Reading Comp with score of 070 and Accuplacer-Sentence Skills with score of 080].

Registration Restrictions: If prerequisite is not satisfied, then appropriate scores on reading and writing placement tests required.

Special Fees.

Preparation for ENGL A111 and alternative to ENGL A109. Introduces composition of multi-paragraph essays that conform to Standard American English for college writing. Includes critical reading skills to enhance students' writing. Continues intensive practice in punctuation, sentence combining, revising, and editing.

## PRT - Process Technology

Offered through Kenai Peninsula College

156 College Road, Soldotna, Alaska, 99669, (907) 262-0330

[www.kpc.alaska.edu](http://www.kpc.alaska.edu)

**PRT A101 Introduction to Process Technology** 3 CR  
Contact Hours: 3 + 0

Introduction to process operations in industry through an overview of general information, processes, procedures, and equipment.

**PRT A110 Introduction to Occupational Safety, Health, and Environmental Awareness** 3 CR

Contact Hours: 3 + 0

Introduction to the field of safety, health, and environment within the process industry. Covers various types of plant hazards, safety and environmental systems equipment, and applicable government regulations, and industry standards.

**PRT A130 Process Technology I: Equipment** 4 CR

Contact Hours: 4 + 0

Prerequisites: PRT A101.

In-depth treatment of selected process equipment including rotating machinery and process units. Equipment components, construction, preventive maintenance, and safety will be emphasized.

**PRT A140 Industrial Process Instrumentation I** 3 CR

Contact Hours: 3 + 0

Prerequisites: (MATH A105 or concurrent enrollment).

Major Restriction: Must be Industrial Process Instrumentation or Process Technology major.

Registration Restrictions: Degree-seeking Process Technology or Industrial Process Instrumentation students.

Introduction to the terminology and symbolism encountered in process instrumentation. The common process variable measurement tools used industrially are explored.

**PRT A144 Industrial Process Instrumentation II** 3 CR

Contact Hours: 2.5 + 1

Prerequisites: PRT A140.

Major Restriction: Must be Industrial Process Instrumentation or Process Technology major.

Registration Restrictions: Degree-seeking Process Technology or Industrial Process Instrumentation students.

Introduction to continuous control strategies and final control elements utilized for process control. The use of discrete alarm and shutdown systems is also introduced. Shop experiences provide the opportunity to understand pneumatic measurement, transmission, and control functions.

**PRT A160 Oil and Gas Exploration and Production I** 3 CR

Contact Hours: 3 + 0

Registration Restrictions: Admission to Process Technology degree program.

Surveys oil and gas exploration and production issues including marketing, geology, reservoir economics, legal aspects of resource ownership, drilling and production technologies, product separation, safety, and environmental issues.

**PRT A230 Process Technology II: Systems** 4 CR

Contact Hours: 3 + 2

Prerequisites: PRT A130.

Covers how the individual components interact as part of a system and how each system works within an entire processing facility. Special attention is given to the common systems found in each Alaskan process industry. Some topics include upstream oil and gas production, petrochemicals and refinery processes, refrigeration, power generation, milling, boilers and heaters, coolers, and heat exchangers.

**PRT A231 Process Technology III: Operations** 4 CR

Contact Hours: 3 + 2

Prerequisites: PRT A230.

Analyzes duties and responsibilities of the process, operator on the job. Includes normal operation, upset conditions, emergency action plans, startups, shutdowns, operating modes, turnarounds, and routine maintenance activities.

**PRT A250 Process Troubleshooting** 3 CR

Contact Hours: 3 + 0

Prerequisites: PRT A231.

Analyzes the troubleshooting process and studies the use of indicators, variables, and controllers to troubleshoot problems current to the process industries.

**PRT A255 Quality Concepts for the Process Industry** 1 CR

Contact Hours: 1 + 0

Prerequisites: PRT A231.

Introduction and application of current quality concepts used by the process technician. Discusses the role of statistical processes used by the operator in achieving quality.

## PS - Political Science

Offered through the College of Arts and Sciences

Social Sciences Building (SSB), Room 367, 786-4897

<http://polsci.uaa.alaska.edu>

**PS A101 Introduction to American Government** 3 CR

Contact Hours: 3 + 0

Course Attributes: UAA GER Social Sciences Requirement.

An introduction to the historical and constitutional foundations of American government; the political activities of parties, groups, and the media; public decision-making by the executive, Congress, and the courts; and current economic, environmental, social, and foreign issues and policies.

**PS A102 Introduction to Political Science** 3 CR

Contact Hours: 3 + 0

Course Attributes: UAA GER Social Sciences Requirement.

The exploration of basic principles and processes of major branches of the discipline of political science, including American government, comparative politics, international relations and political philosophy.

**PS A290 Topics in Politics** 1-3 CR

Contact Hours: 1-3 + 0

Special Note: May be repeated up to five times for credit with change of title for maximum of 6 credits.

Introductory-level examination of current or ongoing topic of interest related to one or more sub-fields within political science.

**PS A301 Comparative Political Economy** 3 CR

Contact Hours: 3 + 0

Prerequisites: PS A102.

Explores how political power shapes economic outcomes and how economic forces influence political action. Includes an introduction to the prominent theories of international political economy (IPE), describes IPE institutions, and presents and analyzes global trade and development theories and other contemporary challenges to IPE.

**PS A311 Comparative Politics** 3 CR

Contact Hours: 3 + 0

Prerequisites: ENGL A111 and [PS A101 or PS A102].

Course Attributes: UAA GER Social Sciences Requirement.

Introduction to the development of governmental structures and political processes in the modern world. Theories are related to problems and governing strategies in contemporary political systems.

**PS A312 Comparative Northern Politics** 3 CR

Contact Hours: 3 + 0

Prerequisites: ENGL A111 or PS A102.

Detailed comparative analysis of political systems, political actors, and political institutions across the northern region, to contrast such entities and evaluate the complex range of issues relevant to the region and the international community.

**PS A321 International Relations** 3 CR

Contact Hours: 3 + 0

Prerequisites: PS A102.

An introduction to international relations providing general knowledge and analytical tools necessary to understand, evaluate and respond to an increasingly complex array of international problems and international affairs. Includes theoretical approaches to international relations and how theory influences expectations.

**PS A322 United States Foreign Policy** 3 CR

Contact Hours: 3 + 0

Prerequisites: PS A101 or PS A102.

Examines the heritage of United States foreign policy, the processes involved in the formation and implementation of policy, and the environment in which these factors occur.

**PS A324 Model United Nations** 3 CR

Contact Hours: 3 + 0

Special Fees.

Special Note: May be repeated once for credit.

Student simulation of the United Nations. Acting as nation-state delegates, students research and debate a topic of international concern.

<b>PS A325</b>	<b>Northeast Asia in 21st Century</b>	<b>3 CR</b>	<b>PS A346</b>	<b>Alaska Native Politics</b>	<b>3 CR</b>
<p>Contact Hours: 3 + 0  Registration Restrictions: Junior standing. Completion of GER Tier 1 (basic college-level skills) courses. Six credits of Tier 2 GEOG, HIST, or PS courses.  Crosslisted with: HIST A325 and INTL A325.  Course Attributes: UAA GER Integrative Capstone.  An interdisciplinary examination and analysis of Northeast Asia covering China, the Koreans, and Japan, designed to provide students with the means to understand how the societies of this region have developed separate and distinct identities despite their common cultural and philosophic roots.</p>			<p>Contact Hours: 3 + 0  Class Standing Restriction: Must be Junior or Senior.  Registration Restrictions: Upper division standing.  Crosslisted with: AKNS A346.  Special Note: May be used to fulfill the Alaska studies requirement for teacher certification.  Introduction to historical relationships among federal, territorial, state and local laws and policies as they affect Alaska Natives and Native/non-Native relations. Includes contemporary issues and comparative case studies.</p>		
<b>PS A330</b>	<b>The American Political Tradition</b>	<b>3 CR</b>	<b>PS A347</b>	<b>Public Administration</b>	<b>3 CR</b>
<p>Contact Hours: 3 + 0  Prerequisites: ENGL A111 and [HIST A101 or PS A101].  The political theory of liberal democracy examined in its application to crucial events in American political history, with emphasis on the American founding era.</p>			<p>Contact Hours: 3 + 0  Prerequisites: PS A101 or PS A102.  An introduction to the problems of managing agencies and implementing policies in local, state, and federal government. History and current practices of public administration and the effects of the social, economic, and political environments on administration, with an emphasis on Alaska.</p>		
<b>PS A331</b>	<b>Political Philosophy</b>	<b>3 CR</b>	<b>PS A348</b>	<b>Public Policy</b>	<b>3 CR</b>
<p>Contact Hours: 3 + 0  Prerequisites: ENGL A111.  Course Attributes: UAA GER Humanities Requirement.  An introduction to political philosophy, with emphasis on the study of regimes; selected regimes are examined through the writings of political philosophers.</p>			<p>Contact Hours: 3 + 0  Prerequisites: PS A101 or PS A102.  Case study approach to public policy and policymaking. Examines the relationship between the social, economic, and political environments and specific contemporary policies (e.g., education, social welfare, housing, employment, etc.), the policymaking process, and alternative models of policymaking. Emphasis on Alaska as well as national issues.</p>		
<b>PS A332</b>	<b>History of Political Philosophy I: Classical</b>	<b>3 CR</b>	<b>PS A351</b>	<b>Political Sociology</b>	<b>3 CR</b>
<p>Contact Hours: 3 + 0  Prerequisites: ENGL A111.  Course Attributes: UAA GER Humanities Requirement.  Political philosophy from Plato to Marsilius, with emphasis on natural right.</p>			<p>Contact Hours: 3 + 0  Prerequisites: [ENGL A211 or ENGL A212 or ENGL A213 or ENGL A214] and [PS A102 or SOC A101].  Crosslisted with: SOC A351.  Course Attributes: UAA GER Social Sciences Requirement.  Introduction to the social aspects of politics and the nature and distribution of power in society. Examination of the dynamic relationship of the political process and the institutions of society.</p>		
<b>PS A333</b>	<b>History of Political Philosophy II: Modern</b>	<b>3 CR</b>	<b>PS A353</b>	<b>Political Behavior, Participation, and Democracy</b>	<b>3 CR</b>
<p>Contact Hours: 3 + 0  Prerequisites: ENGL A111.  Course Attributes: UAA GER Humanities Requirement.  Political philosophy from Machiavelli to Nietzsche, with emphasis on liberalism and its critics.</p>			<p>Contact Hours: 3 + 0  Prerequisites: PS A101 or PS A102.  Examines variety of democratic systems and explores their influence on political participation and behavior.</p>		
<b>PS A341</b>	<b>The United States Congress</b>	<b>3 CR</b>	<b>PS A355</b>	<b>Women in Politics</b>	<b>3 CR</b>
<p>Contact Hours: 3 + 0  Prerequisites: PS A101.  Examines the organization of the U.S. Congress and its role in the American political system. Topics include theories of representative government, the internal dynamics of Congress, and forces that influence its ability to act within the constitutional system.</p>			<p>Contact Hours: 3 + 0  Prerequisites: PS A101 or PS A102 or WS A200.  Crosslisted with: WS A355.  Examines the roles of women in the political world from local, state, national and international perspectives. The nature of women's political roles will be studied from both historical and contemporary perspectives.</p>		
<b>PS A342</b>	<b>The American Presidency</b>	<b>3 CR</b>	<b>PS A361</b>	<b>Social Science Research Methods</b>	<b>3 CR</b>
<p>Contact Hours: 3 + 0  Prerequisites: PS A101.  Examines executive branch of the U.S. government. Course focuses on the constitutional design and evolution of the office, theories of presidential power, relations with Congress, and contemporary presidential policymaking.</p>			<p>Contact Hours: 3 + 0  Prerequisites: PS A102 or SOC A101.  Crosslisted with: SOC A361.  Provides a firm grounding in rigorous and ethical social science research. Examines various social science research methods, including surveys, experiments, content analyses, interviews and focus groups, and explores methodological challenges, such as hypothesis testing, measurement issues and sampling strategies.</p>		
<b>PS A343</b>	<b>Constitutional Law</b>	<b>3 CR</b>	<b>PS A411</b>	<b>Tribes, Nations, and Peoples</b>	<b>3 CR</b>
<p>Contact Hours: 3 + 0  Prerequisites: PS A101 or JUST A110.  Crosslisted with: JUST A343.  Introduces students to American constitutional law through a study of the history of the Constitution and selected landmark Supreme Court cases. Topics covered are separation of powers, judicial review, civil rights and liberties, property and economic rights and others.</p>			<p>Contact Hours: 3 + 0  Prerequisites: AKNS A201 or PS A102.  Crosslisted with: AKNS A411.  Analyzes and evaluates the history of expansion, invasion, contemporary questions, and issues that confront Indigenous tribes, nations, and peoples, including their political, social, economic, and cultural activities. Investigates corresponding relations with non-Indigenous governments and private entities as well as international developments concerning Indigenous human rights.</p>		
<b>PS A344</b>	<b>State and Local Politics</b>	<b>3 CR</b>	<b>PS A424</b>	<b>International Law and Organizations</b>	<b>3 CR</b>
<p>Contact Hours: 3 + 0  Prerequisites: PS A101.  State and local politics and governments in the United States and their interrelationships. The course focuses on how the political process works, how decisions are made, and current issues and policies.</p>			<p>Contact Hours: 3 + 0  Prerequisites: PS A101 or PS A102.  Examines the development of international law and organizations and their role in the international community. Analyzes issues such as nation-state sovereignty, human rights, the use of force, and international criminal law to demonstrate the application of international law and the operation of international organizations.</p>		
<b>PS A345</b>	<b>Alaska Government and Politics</b>	<b>3 CR</b>			
<p>Contact Hours: 3 + 0  Prerequisites: PS A101.  Special Note: May be applied to the Alaska Culture and History requirements for state of Alaska teacher recertification.  Examines all forms of governmental structures and political processes in Alaska. Examines the history of government in Alaska, contemporary political issues and political change.</p>					

## Course Descriptions

### PS A453 Organization Theory 3 CR

Contact Hours: 3 + 0  
Prerequisites: PS A101.

Examines theoretical explanations of large, public sector organizations, their structure and design, internal conflicts, and ability to adapt and achieve goals.

### PS A490 Studies in Politics 1-3 CR

Contact Hours: 1-3 + 0  
Prerequisites: PS A101 or PS A102.  
Registration Restrictions: Junior standing.  
May be stacked with: PS A690.

Special Note: Subtitle varies; may be repeated with different subtitles.

An examination of an aspect of politics from the perspective of a major field in the political science discipline (comparative politics, international relations, political philosophy, American politics, and political behavior). Field and subject studied will vary from year to year.

### PS A492 Senior Seminar in Politics 3 CR

Contact Hours: 3 + 0  
Registration Restrictions: Completion of GER Tier 1 (basic college-level skills) courses. Senior standing and at least one upper-division course from another social science.  
Course Attributes: UAA GER Integrative Capstone.

Senior Integrative Capstone course required of all Political Science majors. An examination of a single major problem in the study of politics.

### PS A495 Internship in Political Science 3 CR

Contact Hours: 0 + 9  
Prerequisites: PS A101 or PS A102.  
Class Standing Restriction: Must be Junior.  
Registration Restrictions: Junior standing. Faculty permission required.  
Special Note: Internships vary; may be repeated once for credit with a different internship.

Students apply the subject matter of political science in an agency or community setting.

### PS A690 Studies in Politics 1-3 CR

Contact Hours: 1-3 + 0  
Prerequisites: PS A101 or PS A102.  
May be stacked with: PS A490.  
Special Note: Subtitle varies; may be repeated with different subtitles.

An examination of an aspect of politics from the perspective of a major field in the political science discipline (comparative politics, international relations, political philosophy, American politics, and political behavior). Field and subject studied will vary from year to year.

## PSY - Psychology

*Offered through the College of Arts and Sciences  
Social Sciences Building (SSB), Room 214, 786-1711  
<http://psych.uaa.alaska.edu>*

### PSY A111 General Psychology 3 CR

Contact Hours: 3 + 0  
Course Attributes: UAA GER Social Sciences Requirement.

Introduces methods, theories, and research in the psychological sciences. Core topics include psychological research methods, biopsychology, learning, cognition, lifespan development, personality, psychological disorders, and social psychology.

### PSY A115 Memory: How it Works and How to Improve It 3 CR

Contact Hours: 3 + 0  
An overview of current theories and research about human memory with an emphasis on practical techniques for memory improvement.

### PSY A130 Crisis Line/Shelter Advocacy 1 CR

Contact Hours: 1 + 0  
Offered only at Kodiak College.  
Basic listening skills and crisis intervention techniques. Overview of domestic violence, adult and child sexual assault, legal alternatives, and community resources.

### PSY A135 Domestic Violence and Sexual Assault Advocacy Training 1 CR

Contact Hours: 1 + 0  
Offered only at Kodiak College.  
In-depth review of fundamentals of domestic violence and sexual assault advocacy with specific emphasis on law enforcement, legal, medical, and social services. Focuses on regulation and program standards, dynamics of advocacy case work, development of techniques of effective interaction with clients, and working knowledge of community resources.

### PSY A143 Death and Dying 3 CR

Contact Hours: 3 + 0  
Special Fees.  
An examination of the event of death and the process of dying in contemporary society. Psychological aspects of loss, grieving, and acceptance of one's own mortality are presented along with an exploration of helping services available in the local community. Social issues involving death are discussed.

### PSY A150 Lifespan Development 3 CR

Contact Hours: 3 + 0  
Course Attributes: UAA GER Social Sciences Requirement.  
Reviews physical, cognitive, and socioemotional aspects of human growth, maturation, and development across the lifespan. Special attention is given to the effects of broader sociocultural influences on development. Classical and contemporary theories relating to development across the lifespan are considered.

### PSY A153 Human Relations 3 CR

Contact Hours: 3 + 0  
Crosslisted with: HUMS A153.  
Special Fees.  
A survey of human relations to include communication, problem solving, interaction, relationship, choice and change skills.

### PSY A168 Human Sexuality 3 CR

Contact Hours: 3 + 0  
Introduces topics of human sexual functioning including physiology, psychology, sociology, philosophy, and morality of human sexual practices and love.

### PSY A190 Introductory Topics in Psychology 1 CR

Contact Hours: 1 + 0  
Special Note: May be repeated for a maximum of 6 credits with a change of subtitles. Some topics might have an additional course fee.  
Introduction to a special topic in psychology of general interest to the community. Presented by researchers and/or behavioral health experts. Specific titles as announced.

### PSY A230 Psychology of Adjustment 3 CR

Contact Hours: 3 + 0  
Registration Restrictions: One social science course.  
Study of sources and problems of stress. Examines self-esteem and interpersonal relationships from perspective of personal coping skills. Emphasizes taking control of one's life.

### PSY A245 Child Development 3 CR

Contact Hours: 3 + 0  
Registration Restrictions: One social science course.  
Study of physical, emotional, cognitive, and social aspects of a child's development from prenatal period to beginning of adolescence. Includes theoretical view of development and effects of genetics, environment, and socialization.

### PSY A245L Child Development Laboratory 1 CR

Contact Hours: 0 + 3  
Prerequisites: (PSY A245 or concurrent enrollment).  
Special Fees.  
Laboratory experience that extends the understanding of cognitive, affective, social, and physical development of children gained from PSY A245, Child Development. Includes field observations of and interactions with children in settings such as daycare centers, schools, and community-based service organizations.

### PSY A260 Statistics for Psychology 3 CR

Contact Hours: 3 + 0  
Prerequisites: [MATH A105 with minimum grade of C or MATH A107 with minimum grade of C or MATH A108 with minimum grade of C or MATH A172 with minimum grade of C or MATH A200 with minimum grade of C] and PSY A111 with minimum grade of C.  
Special Note: Concurrent enrollment in PSY A260L is strongly recommended. Students must earn a grade of C or higher in PSY A260 before being admitted to PSY A261, PSY A355 and/or psychology capstone courses.  
Presents basic descriptive and inferential statistical techniques used in psychology. Covers scales of measurement, central tendency, variability, normal distributions, standard scores, correlation, regression, hypothesis testing, parametric and nonparametric tests for independent and dependent groups, and one- and two-way analysis of variance.

<b>PSY A260L</b>	<b>Statistics for Psychology Lab</b>	<b>1 CR</b>	<b>PSY A366</b>	<b>Perception</b>	<b>3 CR</b>
<p>Contact Hours: 0 + 2 Prerequisites: [MATH A105 with minimum grade of C or MATH A107 with minimum grade of C or MATH A108 with minimum grade of C or MATH A172 with minimum grade of C or MATH A200 with minimum grade of C] and PSY A111 with minimum grade of C. Registration Restrictions: Either prior completion or concurrent enrollment in PSY A260. Special Fees. Special Note: Either prior completion of PSY A260 or concurrent enrollment in PSY A260 is required. Students must earn a grade of C or higher in PSY A260L before being admitted to PSY A261, PSY A355 and/or psychology capstone courses. Laboratory that builds on the material covered in PSY A260, giving hands-on experience with data-analysis software. Includes the use of software for graphing, descriptive statistics, correlation, simple regression, t-tests, analysis of variance, and chi-square.</p>			<p>Contact Hours: 3 + 0 Prerequisites: PSY A111 and PSY A261. Special Fees. Presents current theories and phenomena which effect how we perceive the world around us. Explores the capacities and limitations of the sensory apparatus, particularly vision. Considers implications of the human tendency to "Misperceive" situations.</p>		
<b>PSY A261</b>	<b>Research Methods in Psychology</b>	<b>4 CR</b>	<b>PSY A368</b>	<b>Personality</b>	<b>3 CR</b>
<p>Contact Hours: 3 + 3 Prerequisites: ENGL A111 with minimum grade of C and PSY A111 with minimum grade of C and PSY A260 with minimum grade of C and PSY A260L with minimum grade of C. Special Fees. Special Note: Students must earn a grade of C or higher in PSY A261 before being admitted to PSY A355 and/or psychology capstone courses. The lecture component introduces the scientific approach to studying behavior and mental processes and covers and practices, data collection and analysis, and APA style writing. The laboratory component provides applied experience with designing research projects and data collection as well as analysis, interpretation, and reporting of results.</p>			<p>Contact Hours: 3 + 0 Prerequisites: ENGL A111 with minimum grade of C and [PSY A111 or PSY A150]. Survey of modern and contemporary theories of personality and personality development. Focuses on how and why people differ in the ways they think, feel, and behave. Emphasizes research findings on the measurement of personality and biological and social bases of personality.</p>		
<b>PSY A313</b>	<b>Psychology of Women</b>	<b>3 CR</b>	<b>PSY A370</b>	<b>Behavioral Neuroscience</b>	<b>3 CR</b>
<p>Contact Hours: 3 + 0 Registration Restrictions: Junior level standing, or 6 credits of psychology. Examines how women behave, think, and feel. Major topics are sex-role development, the effects of sexism, pornography, and violence against women, gender differences, female sexuality and health issues, love relationships, femininity, masculinity, and androgyny, and adjustment and mental disorders.</p>			<p>Contact Hours: 3 + 0 Prerequisites: ENGL A111 with minimum grade of C and [PSY A111 with minimum grade of C or BIOL A102 with minimum grade of C or BIOL A111 with minimum grade of C or BIOL A115 with minimum grade of C] and [ENGL A211 with minimum grade of C or ENGL A212 with minimum grade of C or ENGL A213 with minimum grade of C or ENGL A214 with minimum grade of C]. Registration Restrictions: Junior or Senior standing. Course Attributes: UAA GER Integrative Capstone. Special Note: Although this course is one option for a university- wide integrative capstone, it does not meet the Psychology major capstone requirement. Examines how behavior and cognition are mediated by biological processes. Covers neural activity, the organization of the nervous system, psychopharmacology, and biological bases of normal and abnormal behaviors.</p>		
<b>PSY A316</b>	<b>Motivation and Emotion</b>	<b>3 CR</b>	<b>PSY A372</b>	<b>Community Psychology</b>	<b>3 CR</b>
<p>Contact Hours: 3 + 0 Prerequisites: PSY A111. Special Fees. Examines the basic theories and phenomena associated with motivational states and emotional experiences. Human motives are described and related to various forms of behavior. Characteristics of emotional states are identified.</p>			<p>Contact Hours: 3 + 0 Prerequisites: PSY A111. Registration Restrictions: One other three (3) credit psychology course. Focus on the impact of social and environmental factors on behaviors. Emphasis on interaction theories and research and the application to communications, dynamics of power, confrontation and conflict, and creative problem solving.</p>		
<b>PSY A327</b>	<b>Field Experience in Psychology I</b>	<b>3 CR</b>	<b>PSY A375</b>	<b>Social Psychology</b>	<b>3 CR</b>
<p>Contact Hours: 1 + 6 Prerequisites: PSY A111. Registration Restrictions: Instructor permission and completion of 6 additional credits in Psychology beyond PSY A111. Special Fees. Arranged placement in supervised settings that provide psychological services. Focus on values, agency operations, and skills required to provide services and interventions. Students are expected to complete 90 hours of supervised experience.</p>			<p>Contact Hours: 3 + 0 Prerequisites: ENGL A111 with minimum grade of C and [MATH A105 or MATH A107 or MATH A108 or MATH A172 or MATH A200] and [PSY A111 or PSY A150]. Focuses on individuals in social situations and the scientific study of how individuals think about, influence, and relate to one another. Includes theory and research on subjective beliefs about the self and the social world; attitudes and behaviors; genes and culture; conformity; persuasion; group dynamics; prejudice; aggression; attraction; and altruism.</p>		
<b>PSY A345</b>	<b>Abnormal Psychology</b>	<b>3 CR</b>	<b>PSY A380</b>	<b>Psychology of Stress and Coping</b>	<b>3 CR</b>
<p>Contact Hours: 3 + 0 Prerequisites: PSY A111. Introduces the psychology of abnormal behavior through research and clinical applications using a biopsychosocial model. Psychological disorders are presented within their multicultural, gender, and developmental contexts. Topics also include history, assessment, suicide, psychopharmacology, mental institutions, psychotherapy, and prevention as well as contemporary legal issues.</p>			<p>Contact Hours: 3 + 0 Prerequisites: PSY A111. Registration Restrictions: One other three (3) credit psychology course. Special Fees. Examines the use of self-regulation techniques in the management of stress. Topics include cognitive behavior strategies, goal setting, time management, assertiveness training, relaxation techniques, biofeedback, diet, exercise, and alternative health practices.</p>		
<b>PSY A355</b>	<b>Learning and Cognition</b>	<b>4 CR</b>	<b>PSY A398</b>	<b>Individual Research</b>	<b>3 CR</b>
<p>Contact Hours: 3 + 3 Prerequisites: [PSY A111 with minimum grade of C and PSY A150 with minimum grade of C and PSY A260 with minimum grade of C and PSY A260L with minimum grade of C and ENGL A111 with minimum grade of C] and [ENGL A211 with minimum grade of C or ENGL A212 with minimum grade of C or ENGL A213 with minimum grade of C or ENGL A214 with minimum grade of C]. Special Fees. Special Note: The required laboratory includes work in both learning and cognition, and requires that students be familiar with research design, statistical calculations, and APA style. Overview of major learning principles, including classical and operant conditioning. Also includes a contemporary review of the memory system, the representation of knowledge, skill acquisition, memory retrieval, forgetting, and aspects of language processing.</p>			<p>Contact Hours: 1 + 6 Prerequisites: PSY A260 and PSY A260L and PSY A261. Registration Restrictions: Faculty permission. Special Fees. Special Note: May be repeated for a maximum of 9 credits. Under the supervision of a faculty member either (a) initial participation on a team where the student helps carry out a research project by a faculty member in psychology, or (b) initial attempt by the student to design and carry out an empirical research project in psychology.</p>		

## Course Descriptions

- PSY A412 Foundations of Modern Psychology 3 CR**  
Contact Hours: 3 + 0  
Prerequisites: PSY A111 with minimum grade of C and PSY A150 with minimum grade of C and PSY A260 with minimum grade of C and PSY A260L with minimum grade of C and PSY A261 with minimum grade of C and [ENGL A211 with minimum grade of C or ENGL A212 with minimum grade of C or ENGL A213 with minimum grade of C or ENGL A214 with minimum grade of C].  
Special Note: Course meets the departmental capstone requirement for the Psychology major.  
Provides an overview of psychology's history that leads up to a discussion of the most significant issues in contemporary psychology. The seminar format provides a historical perspective that is used to understand key issues in current psychological theory and research.
- PSY A420 Conducting Research in Psychology 3 CR**  
Contact Hours: 3 + 0  
Prerequisites: PSY A111 and PSY A261 and [PSY A260 or STAT A252 or STAT A253 or STAT A307].  
Special Fees.  
Special Note: Fulfills capstone requirement for psychology majors.  
A survey of research design, from designing a study, statistically analyzing the data, to interpreting and reporting the results. Useful to those anticipating a project (such as thesis) and also valuable to those who wish to better understand research reports.
- PSY A425 Clinical Psychology 3 CR**  
Contact Hours: 3 + 0  
Prerequisites: PSY A111 and PSY A345.  
Historical developments and contemporary applications of clinical psychology. Survey of major counseling and psychotherapy approaches, including basic assumptions, techniques, and related research findings.
- PSY A427 Field Experience in Psychology II 3 CR**  
Contact Hours: 1 + 6  
Prerequisites: [ENGL A211 with minimum grade of C or ENGL A212 with minimum grade of C or ENGL A213 with minimum grade of C or ENGL A214 with minimum grade of C] and PSY A111 with minimum grade of C and PSY A150 with minimum grade of C and PSY A260 with minimum grade of C and PSY A260L with minimum grade of C and PSY A261 with minimum grade of C and PSY A327 with minimum grade of B.  
Registration Restrictions: Instructor permission.  
Special Fees.  
Special Note: Meets the departmental capstone requirement for the Psychology major.  
Arranged placement in supervised settings that provide psychological services. Focus on policy, communication skills, intervention skills, assessment, service planning, and evaluation. Students are expected to complete 90 hours of supervised experience.
- PSY A428 Evolutionary Psychology 3 CR**  
Contact Hours: 3 + 0  
Prerequisites: [ENGL A211 with minimum grade of C or ENGL A212 with minimum grade of C or ENGL A213 with minimum grade of C or ENGL A214 with minimum grade of C] and PSY A111 with minimum grade of C and PSY A150 with minimum grade of C and PSY A260 with minimum grade of C and PSY A260L with minimum grade of C and PSY A261 with minimum grade of C.  
Registration Restrictions: Two of the following courses: PSY A313, PSY A316, PSY A345, PSY A355, PSY A366, PSY A370, PSY A375  
Special Note: Meets the departmental capstone requirement for the Psychology major.  
Senior-level survey of theory and research pertaining to an evolutionary model of human nature, and how such a model can integrate many of psychology's different branches. Compares traits between and within different species, addressing how natural and sexual selection might have partially shaped human nature and patterns of human cognition, emotion, behavior, and social interactions.
- PSY A445 Strategies of Behavior Change 3 CR**  
Contact Hours: 3 + 0  
Focuses on the various principles, concepts, and clinical applications of applied behavior analysis with the human population. Includes methodology to complete a functional behavioral assessment of a target behavior.
- PSY A450 Adult Development and Aging 3 CR**  
Contact Hours: 3 + 0  
Prerequisites: PSY A111 or PSY A150.  
Reviews psychological, biological, and social development along with economic and historical circumstances of aging in the span of life between early and late adulthood. A special focus is placed on aging within today's world and the use of applied developmental psychology in promoting positive aging.

- PSY A453 Application of Statistics to the Social Sciences 4 CR**  
Contact Hours: 3 + 2  
Registration Restrictions: STAT A252 for BA Sociology or STAT A253 for BS Sociology or PSY A260 for BA/BS Psychology, and SOC A361 or PSY A261.  
Crosslisted with: SOC A453.  
Special Fees.  
Demonstrates application of statistics to various types of studies in the social sciences. Students analyze social science journal articles that utilize statistics.
- PSY A455 Mental Health Services in Alaska 3 CR**  
Contact Hours: 3 + 0  
Prerequisites: PSY A345.  
Emphasizes behavioral health topics in Alaska such as developmental disabilities, fetal alcohol spectrum disorders, traumatic brain injury, substance abuse, and suicide. The course will present culturally sensitive, community-based services that address these problems throughout the life span.
- PSY A465 Cross-Cultural Psychology 3 CR**  
Contact Hours: 3 + 0  
Prerequisites: PSY A111.  
Registration Restrictions: Three other psychology courses; PSY A425 recommended.  
May be stacked with: PSY A654.  
Explores ethnic-cultural values, attitudes and beliefs as they relate to interpersonal relationships and human behavior. Examines how behavioral styles, manifestations of psychopathology and effective psychotherapy methods are affected by ethnic-cultural factors.
- PSY A473 Psychological Testing 3 CR**  
Contact Hours: 3 + 0  
Prerequisites: PSY A111 and [PSY A260 or STAT A252].  
Special Fees.  
Provides an understanding of psychological measurement and test development. Topics include the history of testing, ethical testing practices, standardization, sources of bias, reliability, and validity. Common psychological tests are introduced.
- PSY A485 Health Psychology 3 CR**  
Contact Hours: 3 + 0  
Prerequisites: PSY A111 and PSY A370.  
Course examines psychological, physical, and environmental factors that influence mental and physical health. Topics include: epidemiology, stress theories, brain anatomy, psychophysiology, psychoneuroimmunology, chronic pain, tobacco/alcohol abuse, diet, exercise, terminal illness, and how doctor/patient communication affects basic health care delivery. The biopsychosocial orientation is presented from both disease and prevention strategies.
- PSY A486 Forensic Psychology 3 CR**  
Contact Hours: 3 + 0  
Prerequisites: PSY A111 or SOC A101.  
Introduces the development and application of psychology's scientific contribution to civil and criminal legal issues. Topics include history and philosophy of forensic psychology, report preparation (methods, assessment, and writing), practice and research ethics, expert testimony, mediation, domestic violence, child abuse, discrimination, sexual harassment, and criminal profiling.
- PSY A490 Distinguished Practitioners Series 1 CR**  
Contact Hours: 1 + 0  
Registration Restrictions: 12 credits of psychology.  
May be stacked with: PSY A690.  
Special Note: May be repeated for a maximum of 6 credits with a change of subtitle.  
Topics in clinical or applied psychology presented by practicing members of the professional community. Specific titles as announced.
- PSY A492 Senior Seminar: Contemporary Issues in Psychology 3 CR**  
Contact Hours: 3 + 0  
Registration Restrictions: Declared psychology major or minor and completion of four psychology courses.  
May be stacked with: PSY A690.  
Special Note: Check schedules for specific titles being offered.  
Seminar for senior students who are pursuing a major or minor in psychology to discuss issues in contemporary psychology.
- PSY A498 Individual Research 3 CR**  
Contact Hours: 1 + 6  
Prerequisites: PSY A398 or PSY A420.  
Registration Restrictions: Faculty permission.  
Special Fees.  
Special Note: May be repeated for a maximum of 9 credits.  
Under the supervision of a faculty member either a) advanced participation on a team where the student helps carry out a research project by a faculty member in psychology, or b) advanced attempt by the student to design and carry out an empirical research project in psychology.



<b>PSY A499</b>	<b>Senior Thesis</b>	<b>3 CR</b>	<b>PSY A609</b>	<b>Applied Research Methods</b>	<b>3 CR</b>
<p>Contact Hours: 0 + 9 Prerequisites: [ENGL A211 with minimum grade of C or ENGL A212 with minimum grade of C or ENGL A213 with minimum grade of C or ENGL A214 with minimum grade of C] and PSY A111 with minimum grade of C and PSY A150 with minimum grade of C and PSY A260 with minimum grade of C and PSY A260L with minimum grade of C and PSY A261 with minimum grade of C and PSY A420. Registration Restrictions: Instructor approval. Special Note: May be repeated for a maximum of 6 credits. Independent research under faculty supervision. Culminates in a document prepared to APA publication standards. Presentation at a research conference is encouraged.</p>			<p>Contact Hours: 3 + 0 Prerequisites: PSY A260 and PSY A261. Registration Restrictions: Graduate standing in Psychology. Introduces students to a variety of research designs in clinical and applied psychology, including experimental and quasi-experimental designs, single-subject designs, and program evaluation. Reviews issues of statistical, construct, internal, and external validity. Focus is placed on understanding the application of research methods and issues of validity, with emphasis placed on developing the skills needed to evaluate and apply the findings from published research in clinical practice. Examples drawn from the applied psychology literature and meta-analyses are used to develop skills and knowledge in the critical evaluation and application of the extant research literature.</p>		
<b>PSY A601</b>	<b>Clinical/Community/Cross-Cultural Integration Seminar</b>	<b>1 CR</b>	<b>PSY A611</b>	<b>Ethics and Professional Practice</b>	<b>3 CR</b>
<p>Contact Hours: 1 + 0 Registration Restrictions: Admission to the Ph.D. Program in Clinical-Community Psychology. Introduces current trends in community, clinical, and cross-cultural psychology. Students are encouraged to explore how these three fields complement each other to bring about positive change in community and clinical settings. Special emphasis is on ways to conceptualize mental health and community issues in culturally appropriate ways.</p>			<p>Contact Hours: 3 + 0 Registration Restrictions: Graduate standing in Psychology. Comprehensive overview of the ethical principles and legal statutes involved in the practice of counseling and psychotherapy. Designed to serve as a forum for the discussion of ethical issues and other concerns relevant to professionals in the fields of counseling and psychotherapy. Topics covered will play an important role in the preparation and development of ethical and competent professionals.</p>		
<b>PSY A602</b>	<b>Native Ways of Knowing</b>	<b>3 CR</b>	<b>PSY A612</b>	<b>Human Development in a Cultural Context</b>	<b>3 CR</b>
<p>Contact Hours: 3 + 0 Registration Restrictions: Graduate standing in Psychology. Grade Mode: Pass/No Pass. Appropriate and valid ways of describing and explaining human behavior by using the social context, culture, and history of indigenous groups. Includes indigenous approaches to values, health, the interconnection of family and community, the nature of spirituality and indigenous healing, and the importance of elders and spiritual healers.</p>			<p>Contact Hours: 3 + 0 Registration Restrictions: Graduate standing in Psychology. Study of developmental theory, research, and substantive applied issues across the life span. Particular emphasis is placed on understanding how culture and sociocultural context impact the interplay of biology and environment in the development of essential qualities and characteristics of individuals.</p>		
<b>PSY A603</b>	<b>Alaskan and Rural Psychology</b>	<b>3 CR</b>	<b>PSY A616</b>	<b>Program Evaluation and Community Consultation I</b>	<b>3 CR</b>
<p>Contact Hours: 3 + 0 Prerequisites: PSY A632. Registration Restrictions: Graduate standing in Psychology. Introduces rural community psychology, including the diversity of rural communities with emphasis on Alaska, and the rural circumpolar north. Provides an introduction to rural health promotion, prevention, and behavioral health care and a basis for understanding many of the issues of services planning and delivery in rural areas.</p>			<p>Contact Hours: 3 + 0 Prerequisites: PSY A639. Registration Restrictions: Admission to the Ph.D. Program in Clinical-Community Psychology. The first in a two-course series, providing an overview of theories, methods, and applications of program evaluation and community consultation as tools for facilitating systemic and programmatic changes in community and clinical settings. Seminar covers techniques of entry into various settings and designing program evaluations in collaboration with various community organizations.</p>		
<b>PSY A604</b>	<b>Biological and Pharmacological Bases of Behavior</b>	<b>3 CR</b>	<b>PSY A617</b>	<b>Program Evaluation and Community Consultation II</b>	<b>3 CR</b>
<p>Contact Hours: 3 + 0 Prerequisites: PSY A622. Registration Restrictions: Graduate standing in Psychology. Covers biological underpinnings of behavior and the basic principles of pharmacology. Deals with physiological causes and contributors to psychopathology and with the medical sequelae of psychiatric disorders. Topics will include issues such as differential diagnosis, referral for medical or psychiatric evaluation, the functional and structural characteristics of relevant physiological systems.</p>			<p>Contact Hours: 3 + 0 Prerequisites: PSY A616. Registration Restrictions: Admission to the Ph.D. Program in Clinical-Community Psychology. The second in a two-course series, introducing the principles and dynamics involved in various types of consultative relationships in community and clinical settings, with a focus on cross-cultural and ethical issues. Covers methods of program evaluation implementation and use of program evaluation findings for consulting with relevant stakeholders.</p>		
<b>PSY A605</b>	<b>History and Systems</b>	<b>1 CR</b>	<b>PSY A622</b>	<b>Multicultural Psychopathology</b>	<b>3 CR</b>
<p>Contact Hours: 1 + 0 Registration Restrictions: Graduate standing in Psychology. Provides a brief philosophically-oriented overview of the history of psychology. Compares Western psychology in the 19th and 20th centuries and selected indigenous psychologies of Asia and North America. Special attention is given to systems of thought that have emerged since the founding of psychology as an empirical science.</p>			<p>Contact Hours: 3 + 0 Registration Restrictions: Graduate standing in Psychology. Special Fees. An overview of contemporary views on child and adult psychopathology from a multicultural perspective. Reviews the fundamentals of clinical interviewing and diagnosis. Includes training in the DSM-IV diagnostic system. The role of culture, ethnicity, gender and social class in symptom formation and the experience of psychological disorders will be examined.</p>		
<b>PSY A606</b>	<b>Native Ways of Healing</b>	<b>3 CR</b>	<b>PSY A623</b>	<b>Intervention I</b>	<b>3 CR</b>
<p>Contact Hours: 3 + 0 Registration Restrictions: Graduate standing in Psychology. Explores healing from a variety of Native perspectives, particularly from Alaska Native perspectives. Emphasizes the preparation and education of healers, their roles and work, and integration within the community. Students will have the opportunity to examine the possible integration of clinical and community psychology with indigenous approaches to healing.</p>			<p>Contact Hours: 3 + 0 Registration Restrictions: Graduate standing in Psychology. Special Fees. Increases knowledge and skills related to traditional and nontraditional therapeutic interventions. Students are provided with a range of theoretical perspectives, a conceptual understanding of, and an opportunity to practice a wide range of culturally relevant and appropriate techniques that are applicable in traditional and nontraditional community mental health settings.</p>		
<b>PSY A607</b>	<b>Cognition, Affect, and Culture</b>	<b>3 CR</b>	<b>PSY A624</b>	<b>Group Therapy</b>	<b>3 CR</b>
<p>Contact Hours: 3 + 0 Registration Restrictions: Admission to the Ph.D. Program in Clinical-Community Psychology and any psychology undergraduate course in learning, cognition, or emotion. Presents an overview of attention, memory, appraisal, and emotion with applications to clinical psychology in a cultural context. Cultural influences on emotional experience and cognition are explored. The etiology and treatment of psychological disorders with significant cognitive and affective disturbance are explored.</p>			<p>Contact Hours: 3 + 0 Prerequisites: (PSY A623 or concurrent enrollment). Registration Restrictions: Graduate standing in Psychology. Special Note: Offered Spring Semesters. Theories of group dynamics and exploration of group processes for a variety of populations. Includes interpretation and analysis of interactional and interpersonal patterns. Features an experiential component of group participation and leadership.</p>		

## Course Descriptions

<b>PSY A626</b>	<b>Family Therapy</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: (PSY A623 or concurrent enrollment). Registration Restrictions: Graduate standing in Psychology. Covers systems theory of family dynamics and behavioral change concepts. Includes history and development, as well as a critical survey of prevailing interventions. Cultural relevance in family therapy is emphasized.		
<b>PSY A627</b>	<b>Community-Based Intervention Skills</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: PSY A623. Special Fees. A theoretical review and practical applications of community-based interventions, including brief therapy, crisis intervention, and case management. Contemporary issues affecting the delivery of mental health services in community-based settings are reviewed, with a focus on imparting skills for the community mental health practitioner.		
<b>PSY A629</b>	<b>Intervention II</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: PSY A623. Registration Restrictions: Graduate standing in Psychology. Deepens understanding of the variety and application of intervention techniques in diverse settings. Directs students to explore the efficacy of specific interventions in a range of settings and with a variety of populations. Shapes critical thinking and basic intervention evaluation skills.		
<b>PSY A631</b>	<b>Cognitive Behavior Therapy</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: (PSY A623 or concurrent enrollment). Registration Restrictions: Graduate standing in Psychology. Behavioral strategies of major clinical relevance (e.g., treatment of anxiety, depression). Procedures (including behavioral assessment) are examined in detail and related to evidence for efficacy, with emphasis on adult populations.		
<b>PSY A632</b>	<b>Community Psychology Across Cultures</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Graduate standing in Psychology. An overview of theory, research, and practice of community psychology with particular emphasis on cross-cultural themes, the design and evaluation of interventions in remote and rural community settings, prevention and health promotion, and social change. Particular emphasis will be on issues relevant to Alaska Native communities.		
<b>PSY A633</b>	<b>Tests and Measurement in Multicultural Context</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Graduate standing in Psychology. Special Fees. Surveys principles of construction, analysis and evaluation of psychological tests in a multicultural context. Emphasizes culturally sensitive application of psychological tests and measurements. Focuses on the history, theory and methods of psychological testing by examining the areas of intelligence, personality, and vocation. Discusses widely-used intelligence and personality tests and procedures.		
<b>PSY A638</b>	<b>Child Clinical Psychology</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: (PSY A622 or concurrent enrollment) and (PSY A623 or concurrent enrollment). Registration Restrictions: Graduate standing in Psychology or baccalaureate degree and professional experience. Reviews childhood behavior and developmental disorders and provides an introduction to ethical issues, assessment approaches and intervention strategies to address these disorders. Emphasis is placed on incorporating contextual factors (development, family, culture) and empirically-validated interventions into the treatment of children.		
<b>PSY A639</b>	<b>Research Methods</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: PSY A260. Registration Restrictions: Graduate standing in Psychology. Special Fees. Presents methods used for research in community, clinical, and cross-cultural settings. Introduces epistemologies and ethics relevant to research with rural and indigenous people. Includes a variety of designs and data gathering methods for improving understanding of behavior in social settings. Quantitative, qualitative, and mixed-method approaches will be presented.		

<b>PSY A650</b>	<b>Systems of Human Behavior I</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Graduate level, and approval of WWAMI Biomedical Program Director and Faculty. Grade Mode: Pass/No Pass. Crosslisted with: BIOM A650. Special Fees. Selected overview of contributions from behavioral sciences useful to physicians in primary care clinical practice. Emphasizes impact of such factors as cultural background, social role, sexual identity and belief system upon students' future effectiveness as physicians. Presents role of behavioral factors in major management problems faced in medical practice. Teaches useful skills for analyzing behavior, defining behavioral objectives, and designing treatment strategies to obtain these objectives.		
<b>PSY A652</b>	<b>Practicum Placement - Clinical I</b>	<b>1-3 CR</b>
Contact Hours: 1-3 + 7-20 Prerequisites: PSY A611 and PSY A622 and PSY A623 and PSY A629. Registration Restrictions: Admission to Ph.D. Program in Clinical-Community Psychology. Special Fees. Special Note: May be repeated for maximum of 4 credits. A supervised clinical practicum experience in psychological interviewing, diagnosis, and psychotherapy. Applied techniques focusing on delivery of clinical services in traditional or non-traditional clinical settings. Cultural factors are considered in each of these areas.		
<b>PSY A653</b>	<b>Practicum Placement - Clinical II</b>	<b>1-3 CR</b>
Contact Hours: 1-3 + 7-20 Prerequisites: PSY A652. Registration Restrictions: Admission to the Ph.D. Program in Clinical-Community Psychology. Special Note: May be repeated for maximum of 9 credits. An advanced clinical practicum experience designed to provide increased depth in applying theory to clinical practice and improving skills as a clinician. Covers application of psychological assessment principles. Impact of cultural factors continues as a major aspect of the practicum experience.		
<b>PSY A654</b>	<b>Cultural Issues in Psychotherapy</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: PSY A623. Registration Restrictions: Graduate standing in Psychology. May be stacked with: PSY A465. Special Note: PSY A654 cannot be applied toward the MS degree in Clinical Psychology if PSY A465 was previously taken for credit. Offered Spring Semesters. Places focus on understanding the role that ethnic and cultural issues can play in psychotherapy relationships. Opportunities are provided to gain the awareness, knowledge, and skills necessary to become more effective in cross-cultural psychotherapy situations.		
<b>PSY A657</b>	<b>Quantitative Analysis</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: PSY A639. Registration Restrictions: Admission to the Ph.D. Program in Clinical-Community Psychology. Special Fees. Examines the underlying principles of statistics, including the logic of statistical inference, probability, power, effect size, and Type 1 and 2 errors. Uses statistics for designs including the description of groups, correlation, predictive models, inferential statistics, analysis of mixed-method designs, and common nonparametric techniques.		
<b>PSY A658</b>	<b>Qualitative Analysis</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: PSY A639. Registration Restrictions: Admission to the Ph.D. Program in Clinical-Community Psychology. Provides an in-depth study of the theory of qualitative inquiry, qualitative methodologies, and techniques of qualitative research. Special emphasis on using qualitative research methods in cross-cultural settings and in the broader context of community-based participatory research (CBPR). Uses of qualitative research methods in community and clinical psychology.		
<b>PSY A659</b>	<b>Multivariate Methods in Psychology</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: PSY A639 and PSY A657. Registration Restrictions: Admission to the Ph.D. Program in Clinical-Community Psychology. Provides a conceptual discussion of and statistical software training in advanced statistical analysis, including multivariate regression, canonical correlation, discriminant analysis, multivariate analysis of variance, principal component analysis, factor analysis, logistic regression, and cluster analysis.		

<b>PSY A665</b>	<b>Psychotherapy Practicum</b>	<b>1-3 CR</b>	<b>PSY A681</b>	<b>Substances of Abuse in Alaska</b>	<b>1 CR</b>
<p>Contact Hours: 2 + 10-20 Prerequisites: (PSY A622 or concurrent enrollment) and PSY A623. Registration Restrictions: Graduate standing in Psychology, only with instructor permission. Special Fees.</p> <p>Applied techniques course focusing on psychotherapy issues and problems encountered in the general psychotherapy setting. Students gain supervised experience in the process of psychotherapy with particular focus placed on cultural diversity.</p>			<p>Contact Hours: 1 + 0 Registration Restrictions: Graduate standing in psychology or related field. Instructor permission available for individuals with professional experience in substance abuse treatment. An overview of the most prevalent substances of abuse in Alaska, including physical, psychological, social, and medical consequences of use and abuse.</p>		
<b>PSY A670</b>	<b>Psychotherapy Internship</b>	<b>3 CR</b>	<b>PSY A682</b>	<b>Clinical Interventions for Substance Abuse</b>	<b>1 CR</b>
<p>Contact Hours: 2 + 20 Prerequisites: PSY A665. Registration Restrictions: Admission to MS Clinical Psychology graduate program; Candidacy status, only with instructor permission. Special Note: A minimum of two successfully completed semesters (grade of B or better) is required for graduation. Placement at approved settings will be assigned according to the student's specialization and availability of sites. Supervised psychotherapy with clients in a variety of settings throughout the community.</p>			<p>Contact Hours: 1 + 0 Registration Restrictions: Graduate standing in psychology or related field. Instructor permission available for individuals with professional experience in substance abuse treatment. Contemporary approaches to substance abuse treatment. Emphasis is on conceptualizing substance abuse as a continuum from intervention to after-care. Focus of the course is designed around the study of therapeutic communities in the Anchorage area.</p>		
<b>PSY A671</b>	<b>Grant Writing</b>	<b>1/3 CR</b>	<b>PSY A683</b>	<b>Substance Abuse Assessment and Treatment Planning</b>	<b>1 CR</b>
<p>Contact Hours: 1 or 3 + 0 Prerequisites: PSY A639. Registration Restrictions: Graduate standing in Psychology. Special Note: May be taken for 1 credit or 3 credits, with the 3-credit course requiring the preparation of a full proposal. If students are taking the 1-credit course and taking the 3-credit course, only 3 credits can be counted towards the degree. Provides hands-on training in developing, writing, and submitting grant proposals. Discusses components of the grant writing process with an emphasis on services grant writing for nonprofits and public agencies. Emphasizes research grant writing, with a focus on NIH grant application and review process, and secondary attention to NSF process.</p>			<p>Contact Hours: 1 + 0 Registration Restrictions: Graduate standing in psychology or related field. Instructor permission available for individuals with professional experience in substance abuse treatment. Assessment, measurement issues, and treatment planning in the context of clinical work with substance abusing individuals.</p>		
<b>PSY A672</b>	<b>Practicum Placement - Community I</b>	<b>1-3 CR</b>	<b>PSY A684</b>	<b>Clinical Supervision</b>	<b>3 CR</b>
<p>Contact Hours: 1-3 + 7-20 Registration Restrictions: Admission to Ph.D. Program in Clinical-Community Psychology. Special Fees. Special Note: May be repeated for a maximum of 6 credits. Community practicum experience that provides increased depth in applying theory to practice and improving skills as a community psychologist. Impact of cultural factors will be a major aspect of the practicum experience.</p>			<p>Contact Hours: 3 + 0 Prerequisites: PSY A653. Registration Restrictions: Admission to the Ph.D. Program in Clinical-Community Psychology. Familiarizes students with the clinical, ethical, and cultural issues involved in supervision. Contemporary, empirically supported information regarding various approaches to supervision will be examined. Covers both the relationship inherent in clinical supervision, and training in leadership and supervision of employees in other work settings.</p>		
<b>PSY A673</b>	<b>Practicum Placement - Community II</b>	<b>1-3 CR</b>	<b>PSY A686</b>	<b>Predoctoral Internship</b>	<b>6 CR</b>
<p>Contact Hours: 1-3 + 7-20 Prerequisites: PSY A672. Registration Restrictions: Admission to Ph.D. Program in Clinical-Community Psychology. Special Note: May be repeated for maximum of 6 credits. Advanced community practicum experience that provides hands-on opportunities to create depth and breadth in designing creative applications of theory to practice and independently applying and honing skills as a community psychologist. Impact of cultural factors will be a major aspect of the practicum experience.</p>			<p>Contact Hours: 6 + 40 Registration Restrictions: Admission to the Ph.D. Program in Clinical-Community Psychology; approval of dissertation proposal; approval by the Director of Clinical Training. Grade Mode: Pass/No Pass. Special Fees. Special Note: Must be taken for three consecutive semesters. Deepens understanding and application of assessment and intervention techniques in diverse settings. Students are placed in clinical or community settings for 40 hours per week to apply and sharpen skills. Students work under a local supervisor who manages student caseloads and assignments in collaboration with the course instructor.</p>		
<b>PSY A677</b>	<b>Multidisciplinary Seminar in Children's Mental Health</b>	<b>1 CR</b>	<b>PSY A687</b>	<b>Multicultural Psychological Assessment II</b>	<b>3 CR</b>
<p>Contact Hours: 1 + 0 Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Graduate standing Crosslisted with: EDSE A677 and SWK A677. Special Note: Course is one credit per semester over two sequential semesters Provides an interdisciplinary approach to working with children and families in a variety of behavioral/mental health and educational settings.</p>			<p>Contact Hours: 3 + 0 Prerequisites: PSY A679. Registration Restrictions: Admission to the Ph.D. Program in Clinical-Community Psychology. Presents advanced psychological assessment tools including interviews, projective techniques and neurocognitive assessment. Emphasis on the integration of cognitive, personality and other test results derived from an assessment battery into a meaningful and culturally sensitive psychological assessment report.</p>		
<b>PSY A679</b>	<b>Multicultural Psychological Assessment I</b>	<b>3 CR</b>	<b>PSY A690</b>	<b>Selected Topics in Psychotherapy</b>	<b>1-3 CR</b>
<p>Contact Hours: 3 + 0 Prerequisites: PSY A633. Registration Restrictions: Admission to the Ph.D. Program in Clinical-Community Psychology. Introduces administration, scoring, and interpretation of various intellectual and objective personality assessment instruments, as well as their psychometric properties, for children and adults. Emphasis on the meaningful integration of test results into a culturally sensitive assessment report. Highlights professional and ethical issues related to multicultural practices emphasizing Alaska Natives.</p>			<p>Contact Hours: 1-3 + 0 Registration Restrictions: Baccalaureate degree. Some sections in this series may require additional prerequisites. May be stacked with: PSY A490 and PSY A492. A combined theory and technique course focused on specifically designated issues and problems in counseling and psychotherapy. Designed for students seeking advanced training in special areas of clinical psychology.</p>		
			<b>PSY A691</b>	<b>Children's Mental Health Systems of Care</b>	<b>3 CR</b>
			<p>Contact Hours: 3 + 0 Level Restriction: Must be Graduate - UAA level. Registration Restrictions: Graduate standing Crosslisted with: EDSE A691 and SWK A691. Expands systems of care as a coordinated network of community-based services and supports that are organized, multidisciplinary, and in partnership with youth and family. Addresses the cultural and linguistic needs of families in order to meet the challenges of children and youth with serious mental health needs.</p>		

## Course Descriptions

### PSY A695 Teaching Practicum in Psychology 3 CR

Contact Hours: 2 + 8

Registration Restrictions: Graduate standing in Psychology; faculty permission.

Provides the psychology student an opportunity to learn basic principles of classroom teaching under close faculty supervision. Responsibilities include lecture preparation, exam construction, lecturing, grading, and other teaching-related tasks as agreed upon by the student and supervising faculty in a written contract.

### PSY A698 Individual Research 1-3 CR

Contact Hours: 0 + 3-9

Registration Restrictions: Admission to graduate studies in Psychology and faculty permission.

Special Fees.

Individual research activities, such as literature reviews, protocol development, and pilot studies, conducted under faculty supervision. May alternatively include individual contributions to team research projects.

### PSY A699 Thesis 1-6 CR

Contact Hours: 0 + 3-18

Prerequisites: PSY A639.

Registration Restrictions: Candidacy status and permission of thesis chair.

Independent project under the supervision of a thesis advisor and thesis committee, culminating in a document prepared to publication standards.

### PSY A699D Dissertation 1-9 CR

Contact Hours: 0 + 3-27

Registration Restrictions: Admission to the Ph.D. Program in Clinical-Community Psychology; passage of Research Competency; approval by the Director of Clinical Training.

Special Note: Students may enroll for variable credit, but 18 credits are both the minimum required and the maximum allowed for graduation.

Involves independent empirical research under the supervision of an individual dissertation committee. Culminates in a document prepared to publication standards and a public presentation.

## RADT - Radiologic Technology

*Offered through the Community and Technical College  
Allied Health Sciences Building (AHS), Room 151B, 786-6940  
[www.uaa.alaska.edu/ctc/programs/alliedhealth/radtech](http://www.uaa.alaska.edu/ctc/programs/alliedhealth/radtech)*

### RADT A101 Radiation Protection and Biology for Limited Radiography Professionals 3 CR

Contact Hours: 3 + 0

Registration Restrictions: Must be 18 years or older

Special Fees.

Introduces theory and application of diagnostic radiography for limited radiographers. Includes medical and legal responsibilities of radiography, principles of radiation protection, equipment operation and maintenance, image production and evaluation, and patient care and management.

### RADT A102 Principles of Radiography for Limited Practice I 3 CR

Contact Hours: 3 + 0

Prerequisites: RADT A101.

Applies the concepts of technique selection, radiographic accessories, exposure and processing, and radiation protection. Radiographic anatomy, patient care skills, body mechanics, and radiographic positioning skills will be emphasized.

### RADT A103 Radiographic Procedures for Limited Practice II 3 CR

Contact Hours: 3 + 0

Prerequisites: RADT A101.

Offers the opportunity to apply the concepts of technique selection, radiographic accessories, exposure and processing, and radiation protection. Specific radiographic anatomy, patient care skills, body mechanics, and radiographic positioning skills will be emphasized. Application areas include procedures in abdomen, and axial and appendicular skeleton.

### RADT A104 Radiographic Procedures for Limited Practice III 2 CR

Contact Hours: 1 + 2

Prerequisites: RADT A101.

Covers basic principles of radiographic procedures in performing skull and trauma examinations. Continues to incorporate radiographic terminology and anatomy and allows for demonstration, practice, and evaluation of performance in a laboratory environment.

### RADT A111 Introduction to Radiologic Technology and Patient Care 3 CR

Contact Hours: 2.5 + 1

Registration Restrictions: Department approval.

Special Fees.

Provides an overview of radiography and the practitioner's role in the health care delivery system. Examines principles, practices, and policies of health care organizations, basic concepts of patient care, occupational safety, patient consent, and medical ethics and law as it relates to the profession.

### RADT A131 Radiographic Procedures I 3 CR

Contact Hours: 2 + 3

Registration Restrictions: Department approval

Provides instruction regarding basic principles of radiographic procedures in performing examinations of the chest, abdomen, skeleton, and pelvic girdle. Introduces the principles of radiation protection. Incorporates radiographic terminology and anatomy and allows for demonstration, practice, and evaluation of techniques in a laboratory environment.

### RADT A132 Radiographic Procedures II 3 CR

Contact Hours: 2 + 3

Prerequisites: RADT A131.

Registration Restrictions: Department approval

Special Fees.

Provides instruction regarding basic principles of radiographic procedures in performing examinations of the spine, bony thorax, alimentary tract, genitourinary system, and associated specialized procedures. Incorporates radiographic terminology and anatomy and allows for demonstration, practice, simulation, and evaluation of techniques in a laboratory environment.

### RADT A133 Radiographic Procedures III 3 CR

Contact Hours: 2 + 2

Prerequisites: RADT A132.

Registration Restrictions: Department approval.

Special Fees.

Provides instruction regarding basic principles of radiographic procedures in performing skull procedures and Computed Tomography for the radiographer. Introduces sectional anatomy for the radiographer and incorporates radiographic terminology and anatomy allowing for demonstration, practice, and evaluation of performance in a laboratory environment.

### RADT A151 Medical Imaging Physics 2 CR

Contact Hours: 2 + 0

Registration Restrictions: Department approval.

Provides fundamental knowledge of atomic structure and terminology, the nature and characteristics of radiation, x-ray production, and the fundamentals of photon interactions with matter. Includes introduction to accessory devices that influence image quality and patient exposure.

### RADT A161 Fundamentals of Medical Imaging 3 CR

Contact Hours: 3 + 0

Prerequisites: RADT A131 and RADT A151.

Provides knowledge of equipment requirements and design for radiographic, fluoroscopic, mobile, and conventional tomographic units. Includes introduction to electronic imaging concepts, applications, imaging standards, and computer usage with imaging equipment. Includes an understanding of the development and use of radiographic techniques.

### RADT A171 Fundamentals of Medical Imaging II 3 CR

Contact Hours: 3 + 0

Prerequisites: RADT A161.

Introduces principles regarding factors that govern and influence the production and recording of radiographic images. Film and electronic imaging with related accessories will be emphasized. Provides concepts that emphasize the importance of imaging standards, discussion of problem solving techniques for image evaluation, and factors that affect image quality.

### RADT A195A Radiography Practicum I 2 CR

Contact Hours: 1 + 8

Registration Restrictions: Department approval.

Grade Mode: Pass/No Pass.

Special Fees.

Provides an opportunity to observe, participate, and apply basic radiographic skills in a structured and supervised health care environment, including patient interaction in the performance of examinations of the chest, abdomen, upper and lower extremities, and pelvic girdle. Duties are assigned by the UAA instructor and supervised by an ARRT registered radiologic technologist.

<b>RADT A195B</b>	<b>Radiography Practicum II</b>	<b>3 CR</b>
Contact Hours: 0 + 16 Registration Restrictions: Department approval Grade Mode: Pass/No Pass. Special Fees. Provides structured and supervised application of radiographic skills in a health care facility, including patient interaction in the performance of examinations of the spine, thorax, upper and lower gastrointestinal, and genitourinary systems. Provides opportunity for continued development of previously gained practicum experience. Duties are assigned by the UAA instructor and supervised by an ARRT registered radiologic technologist.		
<b>RADT A195C</b>	<b>Radiography Practicum III</b>	<b>3 CR</b>
Contact Hours: 0 + 13 Registration Restrictions: Department approval Grade Mode: Pass/No Pass. Provides structured and supervised application of radiographic skills in a health care facility, including patient interaction in the performance of examinations of the cranium, as well as trauma, mobile, and pediatric radiography. Provides opportunity for continued development of previous experience gained in the clinical environment. Duties are assigned by UAA instructor and supervised by an ARRT registered radiologic technologist.		
<b>RADT A211</b>	<b>Radiologic Pharmacology and Drug Administration</b>	<b>1 CR</b>
Contact Hours: 1 + 0 Prerequisites: RADT A195C. Provides practical concepts of pharmacology. Explains theory and practice of basic techniques of venipuncture and the administration of diagnostic contrast agents and/or intravenous medications. Emphasis is placed on appropriate delivery of patient care during procedures.		
<b>RADT A231</b>	<b>Sectional Anatomy for Diagnostic Imaging</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Departmental approval. In-depth study of human anatomy through the use of cross-sectional images. Includes anatomical structural relationships and classification of anatomical regions. Transverse, sagittal and coronal views of the head, neck, thorax, abdomen, pelvis and extremities will be correlated with CT and MRI images.		
<b>RADT A251</b>	<b>Radiobiology and Protection</b>	<b>2 CR</b>
Contact Hours: 2 + 0 Prerequisites: RADT A171. Provides a comprehensive overview of the principles of radiation protection as they pertain to the interaction of radiation with living systems. Discusses effects of radiation on molecules, cells, tissues, and the body systems. Factors affecting biological response are presented, including acute and chronic effects of radiation.		
<b>RADT A272</b>	<b>Quality Control in Medical Imaging</b>	<b>2 CR</b>
Contact Hours: 2 + 0 Prerequisites: RADT A171. Registration Restrictions: Department approval Introduces various quality management standards and procedures required in the radiographic and fluoroscopic image process. Discusses management, collection and analysis of quality control data and/or test instrumentation. Includes governmental standards and guidelines that govern accreditation, licensure and provider standards.		
<b>RADT A280</b>	<b>Medical Imaging Pathology</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: RADT A133. Registration Restrictions: Prerequisite or Registered Radiologic Technologist. Provides an introduction to the theories of disease causation and the pathophysiologic disorders that compromise healthy systems. Etiology, pathophysiologic responses, clinical manifestations, radiographic appearance, and management of alterations in body systems are presented. Multiple imaging modalities for pathologic correlation are included.		
<b>RADT A282</b>	<b>Current Issues in Radiologic Technology</b>	<b>1 CR</b>
Contact Hours: 0 + 3 Prerequisites: RADT A133 and RADT A195C. Provides the opportunity to investigate current trends in Radiologic Technology. With the guidance of faculty the student will determine an area of investigative interest by selecting, technical, social, political, or economic aspects of Radiologic Technology.		
<b>RADT A295A</b>	<b>Radiography Practicum IV</b>	<b>5 CR</b>
Contact Hours: 0 + 24 Prerequisites: RADT A195C. Grade Mode: Pass/No Pass. Special Fees. Provides opportunities for direct and indirect supervised development of radiographic skills in a health care facility, including patient interaction in the performance of select radiographic examinations. Continues the development of previous learned clinical skills.		

<b>RADT A295B</b>	<b>Radiography Practicum V</b>	<b>5 CR</b>
Contact Hours: 0 + 24 Prerequisites: RADT A295A. Grade Mode: Pass/No Pass. Special Fees. Provides continued opportunities for direct and indirect supervised development of radiographic skills in a health care facility, including patient interaction in the performance of select radiographic examinations. Continues the development of previous learned clinical skills. Concludes the development of career entry skills for the Radiologic Technologist.		
<b>RADT A311</b>	<b>Mammography for Imaging Professionals</b>	<b>2/3 CR</b>
Contact Hours: 2 or 0+3 Registration Restrictions: Registered or registry-eligible technologist or instructor permission. Grade Mode: Pass/No Pass. Special Note: This course may be taken as a 2-credit course (30 hours didactic only) or as a 3-credit course (30 hours didactic plus 45 hours practicum). Provides knowledge and skills required of a certified mammographer. Provides the necessary didactic requirements (30 hours) and practicum requirements (45 hours) for mammography associated with the Food and Drug Administration (FDA) Mammography Quality Standards Act required by the Federal government. Prepares the students to sit for the ARRT National Certification Examination, which is required by the MQSA Standards.		

## RE - Renewable Energy

*Offered through Matanuska-Susitna College*

*P.O. Box 2889, Palmer, Alaska 99645, (907) 745-9774*

*www.matsu.alaska.edu*

<b>RE A100</b>	<b>Introduction to Renewable Energy</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Introduces students to the field of renewable energy. Topics include renewable energy resources, technologies, principles of conservation and efficiency, storage and hardware options, thermal energy systems, regulations, applicable codes, and career pathways.		
<b>RE A101</b>	<b>Industrial Safety for Renewable Energy</b>	<b>2 CR</b>
Contact Hours: 2 + 0 Emphasizes electrical and industrial safety for working in the renewable energy industry. Topics include hazard awareness, regulations, and mitigation skills.		
<b>RE A102</b>	<b>Applied Physics for Renewable Energy</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: (RE A100 or concurrent enrollment). Registration Restrictions: Placement into MATH A055 or higher. Introductory course for students considering a career in renewable energy. Includes the physical principles for vario renewable energies including solar, wind, hydropower, and geothermal. Demonstrates how the principles of physics relate to the design, basic operation, advantages, and limitations of renewable energy sources.		
<b>RE A106</b>	<b>Introduction to Diesel Engines</b>	<b>3 CR</b>
Contact Hours: 2 + 2 Introduces the knowledge, vocabulary, and technical skills required to maintain, diagnose, and make minor repairs to diesel engines. Topics include diesel engine theory, components, engine performance, cycle of operation, cooling systems, electrical systems, fuels, fuel systems, and the selection and use of tools.		
<b>RE A200</b>	<b>Power Generation Systems</b>	<b>3 CR</b>
Contact Hours: 2 + 2 Prerequisites: RE A102. Introduces the knowledge, vocabulary, and technical skills required to maintain, diagnose, and make minor repairs to small-scale power generation systems. Focuses on AC and DC theory, electrochemical storage systems, generators, inverters, transformers, and photovoltaic technologies.		
<b>RE A201</b>	<b>Power System Management</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: (RE A101 or concurrent enrollment) and (RE A106 or concurrent enrollment) and (RE A200 or concurrent enrollment). Combines essential topics in power system management and business technology to provide a holistic view of energy management. Topics include power stability, economic dispatch, energy storage, smart grid, and Supervisory Control and Data Acquisition (SCADA) systems.		
<b>RE A203</b>	<b>Renewable Energy Project Development</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: (RE A101 or concurrent enrollment) and (RE A106 or concurrent enrollment) and (RE A200 or concurrent enrollment). Synthesizes facets of project development and management within the context of renewable energy projects.		

## Course Descriptions

**RE A295 Renewable Energy Practicum 3 CR**  
Contact Hours: 0 + 9  
Prerequisites: RE A101 and RE A102 and RE A106.  
Registration Restrictions: Instructor permission.  
Special Note: May be repeated for up to 9 credits.  
Provides practical experience in a workplace setting. Faculty, practicum supervisor, and student collaboratively develop an individualized plan for workplace training to reflect the student's occupational objectives.

## RH - Refrigeration & Heating

*Offered through Matanuska-Susitna College*

*P.O. Box 2889, Palmer, Alaska 99645, (907) 745-9715*

*www.matsu.alaska.edu*

**RH A101 Refrigeration and Air Conditioning Fundamentals 4 CR**  
Contact Hours: 3 + 2  
Offered only at Matanuska-Susitna College.  
Explores compressors, condensers, evaporators, metering devices, and related components. Offers instruction in the proper use of tools and testing devices applicable to the HVAC/R trades, and experimentation with refrigeration system training devices. Provides instruction and experience on piping layout and assembly. Provides students with practice at swaging, flaring, bending, soldering, and brazing. Includes design, construction, service, and repair of household refrigerators and freezers.

**RH A103 Technical Mathematics for Industrial Trades 3 CR**  
Contact Hours: 3 + 0  
Offered only at Matanuska-Susitna College.  
Practical use of mathematics as applied to trade and vocational work, designed to increase skills involving trade and technical problems. Covers fractions, decimals, percentage, powers of numbers, and basic algebraic elements. Also explores geometric concepts, ration and proportion, scale drawings, and trigonometric functions.

**RH A105 Electrical Circuits for Refrigeration and Heating I 3 CR**  
Contact Hours: 2 + 2  
Offered only at Matanuska-Susitna College.  
Explores the fundamentals of energy, sources of electricity, conductors and semiconductors, insulators, inductance, capacitance, resistance, and AC-DC motors. Provides students with the opportunity to apply principles and develop skills by using test instruments and training devices.

**RH A109 Principles of Thermodynamics 3 CR**  
Contact Hours: 3 + 0  
Corequisite: RH A103.  
Offered only at Matanuska-Susitna College.  
Focuses on physical laws applied to refrigeration and heating. Introduces practical aspects of psychrometrics, load calculations, heat quantities, heat transfer, insulation factors and coefficients, gas laws, and heat and water vapor flow through structures.

**RH A122 Refrigeration and Air Conditioning 4 CR**  
Contact Hours: 3 + 2  
Prerequisites: RH A101 and RH A105 and RH A109.  
Offered only at Matanuska-Susitna College.  
Introduces and analyzes the chemical composition and properties of various refrigerants. Application of this analysis to "Shop-job" situations, using "Live" equipment and refrigeration training devices by diagnosing and correcting various malfunctions. Instruction in the safe handling and storage of refrigerants.

**RH A126 Electrical Circuits for Refrigeration and Heating II 3 CR**  
Contact Hours: 2 + 2  
Prerequisites: RH A103 and RH A105.  
Offered only at Matanuska-Susitna College.  
Explores schematic wiring diagrams and electrical circuits, alternating current, electric meters, single-phase motors, motor protection, and three-phase motors. Familiarization exercises dealing with air conditioning circuits and the ability to troubleshoot malfunctioning equipment will be covered.

**RH A132 Troubleshooting for HVAC/R Systems 3 CR**  
Contact Hours: 2 + 2  
Prerequisites: RH A101 and RH A105 and RH A109.  
Offered only at Matanuska-Susitna College.  
Emphasis on systematically analyzing and troubleshooting HVAC/R systems to include mechanical, electrical, piping, and control systems. Heavy emphasis on lab activities and training devices. Actual equipment with component faults is used to strengthen and test troubleshooting skills.

**RH A201 Commercial and Ammonia Refrigeration 4 CR**  
Contact Hours: 3 + 2  
Prerequisites: RH A122 and RH A126.  
Offered only at Matanuska-Susitna College.  
Provides an understanding of commercial refrigeration systems including hot gas defrosting, lubrication, contaminants, pipe sizing, etc. Introduces ammonia refrigeration including safety start-up and diagnosis of an operational ammonia liquid overfeed system.

**RH A203 HVAC/R Basic Controls 3 CR**  
Contact Hours: 2 + 2  
Prerequisites: RH A126 and RH A132.  
Offered only at Matanuska-Susitna College.  
Introduces concepts and components of basic residential and commercial heating and cooling control applications. Associated lab exercises are designed to provide an understanding of the operation, troubleshooting, and repair of basic system components. Explores primary burner controls for forced air and hydronic control systems.

**RH A209 Codes for HVAC/R 2 CR**  
Contact Hours: 2 + 0  
Offered only at Matanuska-Susitna College.  
Introduces current mechanical codes as adopted by the State of Alaska and covers sections of the Uniform Mechanical Code and the National Fuel Gas Code related to general heating, ventilation, and air conditioning work.

**RH A211 Customer Relations and Job Etiquette 1 CR**  
Contact Hours: 1 + 0  
Offered only at Matanuska-Susitna College.  
Explores methods, protocols, and techniques to build and maintain positive relationships with customers. Identifies a variety of characteristics and related behaviors required of a successful, productive, heating, ventilation, and air conditioning technician.

**RH A225 Heating Fundamentals and Forced Air Heat 4 CR**  
Contact Hours: 3 + 2  
Prerequisites: RH A109.  
Offered only at Matanuska-Susitna College.  
Assumes no previous knowledge of heating plants. Introduces knowledge and skills needed for the installation and service of forced air heating systems. Instruction ranges from beginning maintenance and installation to advanced troubleshooting of heating systems.

**RH A226 Commercial HVAC/R Systems 4 CR**  
Contact Hours: 3 + 2  
Prerequisites: RH A225.  
Offered only at Matanuska-Susitna College.  
Introduces commercial heating, ventilation, and air conditioning systems by category and application types. Includes both air-side and water-side systems along with humidification, ventilation, and air filtration requirements.

**RH A228 Advanced Hydronic Heat Systems 4 CR**  
Contact Hours: 3 + 2  
Prerequisites: RH A225.  
Offered only at Matanuska-Susitna College.  
Explores hydronic heating sources and emitters. Covers residential and light commercial boilers and hydronic heating systems. Includes radiant panel heating with a strong emphasis on wiring and troubleshooting of hydronic controls.

**RH A229 HVAC/R Control Systems 3 CR**  
Contact Hours: 2 + 2  
Prerequisites: RH A203.  
Offered only at Matanuska-Susitna College.  
Provides a survey of heating, ventilation, and air conditioning control systems and control theory. Topics will include pneumatic, electronic, and direct digital control systems. Lab exercises will be performed on training equipment for each of these system types.

**RH A232 HVAC/R Sheet Metal 3 CR**  
Contact Hours: 2 + 2  
Offered only at Matanuska-Susitna College.  
Introduces the fundamentals of layout, cutting, forming, and fabricating of sheet metal and air conditioning. Blends basic principles with contemporary tools and Sheet Metal and Air Conditioning Contractors National Association (SMACNA) Duct Construction Standards.

**RH A290 Selected Topics in Refrigeration and Heating 1-3 CR**  
Contact Hours: 0-3 + 0-9  
Offered only at Matanuska-Susitna College.  
Special Fees.  
Special Note: May be repeated up to 6 credits with change of subtitle.  
Topics in heating, ventilating, air conditioning, and refrigeration (HVAC/R); such as theory, problem solving, system operation, economic analysis, specialized applications, performance optimization, or specialized study in an area of the trade.

## RUSS - Russian

*Offered through the College of Arts and Sciences*

*Administration/Humanities Building (ADM), Suite 287, 786-4030*

*www.uaa.alaska.edu/languages*

### RUSS A101 Elementary Russian I 4 CR

Contact Hours: 4 + 0

Course Attributes: UAA GER Humanities Requirement.  
Special Fees.

Introductory course for students with no previous knowledge of the Russian language. Develops listening, speaking, reading, and writing skills in Russian for effective communication at the elementary level. Students gain understanding of basic cross-cultural perspectives. Course conducted in Russian.

### RUSS A102 Elementary Russian II 4 CR

Contact Hours: 4 + 0

Prerequisites: RUSS A101.

Course Attributes: UAA GER Humanities Requirement.  
Special Fees.

Continuation of introductory course. Further develops elementary listening, speaking, reading, and writing skills in Russian for effective communication. Enhances appreciation of cross-cultural perspectives. Course conducted in Russian.

### RUSS A201 Intermediate Russian I 4 CR

Contact Hours: 4 + 0

Prerequisites: RUSS A102.

Course Attributes: UAA GER Humanities Requirement.  
Special Fees.

Intermediate course for students with basic knowledge of Russian. Enhances listening, speaking, reading, and writing skills for effective communication at the intermediate level. Students critically examine diverse cultural perspectives. Course conducted in Russian.

### RUSS A202 Intermediate Russian II 4 CR

Contact Hours: 4 + 0

Prerequisites: RUSS A201.

Course Attributes: UAA GER Humanities Requirement.  
Special Fees.

Continuation of first semester in intermediate Russian. Further develops listening, speaking, reading, and writing proficiency for effective communication and in preparation for advanced study of Russian. Students interpret diverse cultural perspectives. Course conducted in Russian.

### RUSS A205 Conversational Skills II 1 CR

Contact Hours: 0 + 2

Registration Restrictions: Proficiency as after two semesters of college-level or two years of high school study in Russian.

Grade Mode: Pass/No Pass.

Special Fees.

Special Note: May be repeated once for credit.

A maintenance and skills enhancement course for intermediate students of Russian, designed primarily to help them to retain and solidify what they have learned in Elementary Russian. With the focus on oral communication, the course emphasizes speaking, listening comprehension, and vocabulary building.

### RUSS A301 Advanced Russian I 4 CR

Contact Hours: 4 + 0

Prerequisites: RUSS A202 with minimum grade of C.

Registration Restrictions: If prerequisite not met, students can gain entrance to course with departmental approval.

Course Attributes: UAA GER Humanities Requirement.  
Special Fees.

Advanced Russian course in refining listening, speaking, reading, writing, and analytical skills for effective interaction in communicatively complex situations. Students critically analyze diverse cultural topics.

### RUSS A302 Advanced Russian II 4 CR

Contact Hours: 4 + 0

Prerequisites: RUSS A301 with minimum grade of C.

Registration Restrictions: If prerequisite not met, students can gain entrance to course with departmental approval.

Course Attributes: UAA GER Humanities Requirement.  
Special Fees.

Continuation of first semester in advanced Russian. Further refines listening, speaking, reading, writing, and analytical skills for effective interaction in communicatively complex situations. Students critically analyze diverse cultural topics.

### RUSS A390 Selected Topics in Advanced Russian 3 CR

Contact Hours: 3 + 0

Prerequisites: RUSS A202.

Registration Restrictions: RUSS A301 and RUSS A302 strongly recommended.

Special Fees.

Special Note: Conducted in Russian. May be repeated for credit with a change of subtitle.

An advanced course for students interested in conversation, listening and writing practice, advanced topics in grammar, and cultural information about the Russian speaking world. Topics will vary.

### RUSS A390B Topics in Advanced Language 1-3 CR

Contact Hours: 1-3 + 0

Prerequisites: RUSS A202.

Special Fees.

Special Note: May be offered in 1-, 2-, or 3-credit segments. Repeatable for credit with a change of subtitle. Up to 3 credits can count toward a minor or major in Languages with an emphasis in Russian.

A focused examination of a single aspect of the Russian language.

### RUSS A427 Post-Soviet Culture and Society 3 CR

Contact Hours: 3 + 0

Prerequisites: HIST A102.

Registration Restrictions: Completion of all Tier I GER (basic college-level skills) courses; and Junior standing. Prerequisite HIST A102 or any RUSS prefix course. Crosslisted with: HIST A427.

Course Attributes: UAA GER Integrative Capstone.

Special Fees.

Interdisciplinary examination and analysis of contemporary Russian culture and society. Explores major themes in post-Soviet society including shifting identities and changing social, cultural, political, and economic realities, and examines how these are expressed in a variety of contemporary sources. Conducted in English.

### RUSS A490A Selected Topics in Russian Culture 1-3 CR

Contact Hours: 1-3 + 0

Registration Restrictions: RUSS A302 or comparable proficiency level.

Special Fees.

Special Note: Conducted in Russian. May be repeated for credit with a change of subtitle.

For advanced students interested in Russian culture with sufficient language proficiency to read, write, and converse in Russian.

### RUSS A490B Selected Topics: Russian Culture in Translation 1-3 CR

Contact Hours: 1-3 + 0

Registration Restrictions: Junior Standing.

Special Fees.

Special Note: Conducted in English. May be repeated for credit with a change of subtitle.

Covers various aspects of Russian culture. Readings are in English translation, but students who read Russian may choose to read the texts in the original.

## SOC - Sociology

*Offered through the College of Arts and Sciences*

*Social Sciences Building (SSB), Room 372, 786-1714*

*www.uaa.alaska.edu/sociology*

### SOC A101 Introduction to Sociology 3 CR

Contact Hours: 3 + 0

Course Attributes: UAA GER Social Sciences Requirement.

Special Note: Offered Fall and Spring Semesters.

Introduction to science of humans as social animals, emphasizing social processes which give rise to and shape human's language, experiences, perception, meaning, and behavior. Multiple frameworks used in understanding and predicting human behavior.

### SOC A110 Introduction to Gerontology: Multidisciplinary Approach 3 CR

Contact Hours: 3 + 0

Course Attributes: UAA GER Social Sciences Requirement.

A multidisciplinary course that provides an introduction to gerontology.

Covers many aspects of aging including those associated with biology, physiology, medical care, psychology, culture, sociology, and social policies.

### SOC A201 Social Problems and Solutions 3 CR

Contact Hours: 3 + 0

Course Attributes: UAA GER Social Sciences Requirement.

Survey of contemporary social problems. Focuses on the causes and consequences of social problems and examines processes through which social problems are identified, prioritized, and addressed.

## Course Descriptions

<b>SOC A202</b>	<b>Social Institutions</b>	<b>3 CR</b>	<b>SOC A342</b>	<b>Sexual, Marital and Family Lifestyles</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Course Attributes: UAA GER Social Sciences Requirement. Applies sociological perspectives, theories, and methodologies to the study of social institutions, including family, education, economy, government, and religion, to examine the ways in which social institutions shape the social organization of society.			Contact Hours: 3 + 0 Prerequisites: SOC A101. Course Attributes: UAA GER Social Sciences Requirement. Special Note: Offered Spring Semesters. An upper-division course which emphasizes theories and research that explain today's marital, family and sexual lifestyles, as well as class and cultural variations found in the U.S. It includes a survey of why and how people meet, interact, love, fight, change, sustain or dissolve relationships, have children and age together.		
<b>SOC A222</b>	<b>Small and Rural Communities</b>	<b>3 CR</b>	<b>SOC A343</b>	<b>Sociology of Deviant Behavior</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Course Attributes: UAA GER Social Sciences Requirement. Special Note: Offered Alternate Spring Semesters. Overview of organization, viability, change and problems of small communities and villages in rural areas; their relations to larger and regional systems; and factors which affect their future as autonomous units.			Contact Hours: 3 + 0 Prerequisites: SOC A101. Special Note: Offered Spring Semesters. A study of the social etiology of deviant behavior, both criminal and non-criminal with an emphasis on the nature of group interaction, and an examination of the institutions involved.		
<b>SOC A242</b>	<b>Introduction to Family, Marriage, and Intimate Relationships</b>	<b>3 CR</b>	<b>SOC A347</b>	<b>Sociology of Religion</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: SOC A101 or PSY A111. Special Fees. Introduction to sociological study of family, marriage, and other intimate relationships. Also explores impact of gender roles, ethnicity and racial background on beliefs, values, attitudes, and behaviors.			Contact Hours: 3 + 0 Prerequisites: SOC A101. Special Note: Offered Spring Semesters. The study of the historical development and functional significance of religion, values, and forms of institutions, groups, reform movements, and their influence on social organization.		
<b>SOC A246</b>	<b>Adolescence</b>	<b>3 CR</b>	<b>SOC A351</b>	<b>Political Sociology</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: SOC A101 or PSY A111. Examines effects of social class, ethnicity, race and gender on identity and socialization in adolescence.			Contact Hours: 3 + 0 Prerequisites: [ENGL A211 or ENGL A212 or ENGL A213 or ENGL A214] and [PS A102 or SOC A101]. Crosslisted with: PS A351. Course Attributes: UAA GER Social Sciences Requirement. Introduction to the social aspects of politics and the nature and distribution of power in society. Examination of the dynamic relationship of the political process and the institutions of society.		
<b>SOC A251</b>	<b>Crime and Delinquency</b>	<b>3 CR</b>	<b>SOC A352</b>	<b>Women and Social Action</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: JUST A110 or SOC A101. Crosslisted with: JUST A251. Course Attributes: UAA GER Social Sciences Requirement. Theoretical perspectives on the causes, consequences, and control of crime and delinquency. Survey of the major theoretical perspectives in the study of crime and delinquency with special attention to the application of empirical research methods to important theoretical issues.			Contact Hours: 3 + 0 Prerequisites: SOC A101. Registration Restrictions: WS A200 recommended. Demonstrates how sociological and feminist theory and research can be applied to solving social issues in communities. Also demonstrates how women working together can empower themselves, their families, and their communities.		
<b>SOC A280</b>	<b>Contemporary Issues</b>	<b>3 CR</b>	<b>SOC A361</b>	<b>Social Science Research Methods</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: SOC A101. Special Note: May be repeated twice for credit with a change in subtitle. Analysis of contemporary social issues from a variety of sociological perspectives.			Contact Hours: 3 + 0 Prerequisites: SOC A101 or PS A102. Crosslisted with: PS A361. Special Fees. Special Note: Offered Fall and Spring Semesters. Provides a firm grounding in rigorous and ethical social science research. Examines various social science research methods, including surveys, experiments, content analyses, interviews and focus groups, and explores methodological challenges, such as hypothesis testing, measurement issues and sampling strategies.		
<b>SOC A307</b>	<b>Demography</b>	<b>3 CR</b>	<b>SOC A363</b>	<b>Social Stratification</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: SOC A101. Analysis of world populations: growth and decline patterns, migratory trends and ecology; worldwide implications to current population growth; critical review of major theoretical contributions, with introduction to demographic methods.			Contact Hours: 3 + 0 Prerequisites: SOC A101. Overview of social inequality across multiple dimensions such as wealth, power, prestige, race, sex, and class. Describes changing stratification patterns and investigates the causes and consequences of inequality.		
<b>SOC A308</b>	<b>Sociology of Law</b>	<b>3 CR</b>	<b>SOC A370</b>	<b>Medical Sociology</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: SOC A101. Class Standing Restriction: Must be Junior. Registration Restrictions: Junior standing. Theoretical perspectives on law and social institutions with an introduction to relevant empirical research.			Contact Hours: 3 + 0 Prerequisites: SOC A101. Crosslisted with: HS A370. Special Note: Offered Alternate Fall Semesters. Provides a historical and contemporary overview of selected social, political, and economic factors that influence the provision of health care in America. Focuses on the relationship between health care and race, sex, social stratification, and geographical location. Brief international comparisons with alternative for-profit and not-for-profit national health care systems.		
<b>SOC A309</b>	<b>Urban Sociology</b>	<b>3 CR</b>	<b>SOC A375</b>	<b>Social Psychology</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: SOC A101. Examines the social, cultural, demographic, and institutional components of metropolitan growth, suburbanization, and urban inequality. Designed to provide a multilevel perspective by addressing both macro- and micro-level phenomena ranging from large-scale urban development to small-scale urban ways of life.			Contact Hours: 3 + 0 Prerequisites: PSY A111 or SOC A101. Introduces differences in sociological approaches to social psychology. Effects of group interaction and social structural factors on individuals' values, attitudes, and behaviors are examined. Topics include socialization, perception, interpersonal relationships, conformity, helping behavior, aggression, and collective behavior. Theory, research, and application emphasized.		
<b>SOC A310</b>	<b>Sociology of Aging</b>	<b>3 CR</b>			
Contact Hours: 3 + 0 Prerequisites: SOC A101 or SOC A110. Registration Restrictions: SOC A110 for Gerontology Minors. A comparative analysis of the social status and role of the aging in various societies with emphasis on problems of aging in contemporary U.S.					



<b>SOC A377</b>	<b>Men, Women and Change</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: SOC A101 or SOC A275. Special Note: Offered Fall Semesters. Examines how gender in our society affects from birth individuals' roles, socialization, achievements, opportunities, and overall personality and self-development. Studies changes that have taken place over the past several decades. Relevant theories and research form the foundation of the course.		
<b>SOC A387</b>	<b>Gay and Lesbian Lifestyles</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: SOC A101 and PSY A111. Special Note: Offered Alternate Spring Semesters. An overview of historical and theoretical factors relevant to gay and lesbian psychosocial development. Participation and acceptance in religion, the military, education, and the workforce will be considered with some emphasis on civil rights and discrimination.		
<b>SOC A402</b>	<b>Social Theory</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: SOC A101. Class Standing Restriction: Must be Junior or Senior. Registration Restrictions: Junior or senior standing. Historical and contemporary approaches to social theory; analysis of conceptual frameworks applied to the study of society and social interaction.		
<b>SOC A404</b>	<b>Environmental Sociology</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: SOC A101. Special Note: Offered Alternate Spring Semesters. A critical analysis of the interactions between society and the environment from an ecological perspective, focusing on processes of industrial and economic growth, natural resource development, community change and social impact assessment, environmental values and environmental movement, land use planning and resource management decision making, and comparative perspectives on human relation to and use of the natural environment.		
<b>SOC A405</b>	<b>Social Change</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: SOC A101. Explores principal theoretical perspectives, sources, processes, patterns, and consequences of social change in society. Emphasizes the nature of social change and its effect on the well-being of people and their environment.		
<b>SOC A407</b>	<b>Power in the Workplace: The Sociology of Formal Organizations</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: SOC A101 with minimum grade of C or SOC A102 with minimum grade of C or SOC A201 with minimum grade of C or SOC A202 with minimum grade of C. Registration Restrictions: Prior completion of 6 credit required Social Science GER. Examines formal organizations as social structures created for the purposes of acquiring, distributing, manipulating, maintaining, expanding and legitimizing power. Explores the theory, language and methodology of organizational studies. Considers organizational interrelationships among purposes, structures, functions, members and stakeholders. Historical framework and contemporary models of organizational theory and behavior are analyzed.		
<b>SOC A408</b>	<b>Sociology of Race and Ethnicity</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: SOC A101. Special Note: Offered Spring Semesters. Present status of ethnic, religious and national minorities and their changing sociological, economic, and political status.		
<b>SOC A453</b>	<b>Application of Statistics to the Social Sciences</b>	<b>4 CR</b>
Contact Hours: 3 + 2 Prerequisites: [PSY A260 or STAT A252 or STAT A253] and [PSY A261 or SOC A361]. Crosslisted with: PSY A453. Special Fees. Special Note: Offered Spring Semesters. Demonstrates application of statistics to various types of studies in the social sciences. Students analyze social science journal articles that utilize statistics.		
<b>SOC A487</b>	<b>Sociology Practicum</b>	<b>3 CR</b>
Contact Hours: 1 + 6 Registration Restrictions: Faculty permission. Special Note: May be repeated once for credit. Student participates in field research project and/or community action/agency program that applies sociological training toward the amelioration of specific social problems. Student will attend a seminar, class, or individual meeting with the faculty member on a weekly basis and complete six hours in the field on an approved project or program. All students will be expected to participate in the design of the practicum, and to complete a term paper or progress report.		

<b>SOC A488</b>	<b>Capstone Seminar</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: SOC A361 and SOC A402. Registration Restrictions: Completion of GER Tier 1 (basic college-level skills) courses and senior standing. Course Attributes: UAA GER Integrative Capstone. Overview of the discipline emphasizing synthesis of theory and research, critical reflection and evaluation, and recent developments in sociology with social action. Particular emphasis will be given to the integration of sociology with other social sciences.		
<b>SOC A490</b>	<b>Special Topics in Sociology</b>	<b>1-4 CR</b>
Contact Hours: 1-4 + 0 Prerequisites: SOC A101. Class Standing Restriction: Must be Junior or Senior. Registration Restrictions: Junior or senior standing Special Note: May be repeated for a maximum of 8 credits with a change of subtitle. An intensive and detailed study of a topic in contemporary sociology in a seminar format.		

## SPAN - Spanish

*Offered through the College of Arts and Sciences  
Administration/Humanities Building (ADM) Suite 287, 786-4030  
[www.uua.alaska.edu/languages](http://www.uua.alaska.edu/languages)*

<b>SPAN A101</b>	<b>Elementary Spanish I</b>	<b>4 CR</b>
Contact Hours: 4 + 0 Course Attributes: UAA GER Humanities Requirement. Special Fees. Introductory course for students with no previous knowledge of the Spanish language. Develops listening, speaking, reading, and writing skills in Spanish for effective communication at the elementary level. Students gain understanding of basic cross-cultural perspectives. Course conducted in Spanish.		
<b>SPAN A102</b>	<b>Elementary Spanish II</b>	<b>4 CR</b>
Contact Hours: 4 + 0 Prerequisites: SPAN A101. Course Attributes: UAA GER Humanities Requirement. Special Fees. Continuation of introductory course. Further develops elementary listening, speaking, reading, and writing skills in Spanish for effective communication. Enhances appreciation of cross-cultural perspectives. Course conducted in Spanish.		
<b>SPAN A201</b>	<b>Intermediate Spanish I</b>	<b>4 CR</b>
Contact Hours: 4 + 0 Prerequisites: SPAN A102. Course Attributes: UAA GER Humanities Requirement. Special Fees. Intermediate course for students with basic knowledge of Spanish. Enhances listening, speaking, reading, and writing skills for effective communication at the intermediate level. Students critically examine diverse cultural perspectives. Course conducted in Spanish.		
<b>SPAN A202</b>	<b>Intermediate Spanish II</b>	<b>4 CR</b>
Contact Hours: 4 + 0 Prerequisites: SPAN A201. Course Attributes: UAA GER Humanities Requirement. Special Fees. Continuation of first semester in intermediate Spanish. Further develops listening, speaking, reading, and writing proficiency for effective communication and in preparation for advanced study of Spanish. Students interpret diverse cultural perspectives. Course conducted in Spanish.		
<b>SPAN A301</b>	<b>Advanced Spanish I</b>	<b>4 CR</b>
Contact Hours: 4 + 0 Prerequisites: SPAN A202 with minimum grade of C. Registration Restrictions: If prerequisite not met, students can gain entrance to course with departmental approval. Course Attributes: UAA GER Humanities Requirement. Special Fees. Advanced Spanish course in refining listening, speaking, reading, writing, and analytical skills for effective interaction in communicatively complex situations. Students critically analyze diverse cultural topics.		

## Course Descriptions

### SPAN A302                      **Advanced Spanish II**                      4 CR

Contact Hours: 4 + 0

Prerequisites: SPAN A301 with minimum grade of C.

Registration Restrictions: If prerequisite not met, students can gain entrance to course with departmental approval.

Course Attributes: UAA GER Humanities Requirement.

Special Fees.

Continuation of first semester in advanced Spanish. Further refines listening, speaking, reading, writing, and analytical skills for effective interaction in communicatively complex situations. Students critically analyze diverse cultural topics.

### SPAN A310                      **Spanish Readings and Conversations**                      3 CR

Contact Hours: 3 + 0

Registration Restrictions: Two years of college Spanish or equivalent.

Special Fees.

Special Note: May be repeated for credit.

Students will improve their conversational skills by participating in skits, interviews, debates, and discussions based on material read. Some grammar introduced informally, but emphasis is on improving listening and speaking skills. Books and activities vary from semester to semester.

### SPAN A320                      **Studies in Contemporary Cultures**                      4 CR

Contact Hours: 4 + 0

Prerequisites: SPAN A302 with minimum grade of C.

Special Note: Course may be repeated once for credit with change of subtitle.

Examines contemporary works through various media (printed, electronic, and audiovisual) of multiple Spanish-speaking communities. Critical analysis through a variety of disciplinary methodologies (e.g. historical, cultural, artistic); terminology also explored and developed. Enhances Spanish language skills in writing, reading, speaking, listening, and cultural literacy.

### SPAN A390A                      **Selected Topics: Studies in Translation and Interpretation**                      4 CR

Contact Hours: 4 + 0

Prerequisites: SPAN A302 with minimum grade of C.

Special Fees.

Special Note: May be repeated twice for credit with a change in subtitle.

Advances language skills through translation and interpretation to and from Spanish and English, focusing on a specific field every time it is offered (e.g., medical Spanish, judicial/court Spanish, business Spanish, Spanish for social services, etc.). Enhances and refines reading, listening, writing, and speaking abilities.

### SPAN A432                      **Studies in Literature and Culture (Selected Topics)**                      3 CR

Contact Hours: 3 + 0

Prerequisites: SPAN A302.

Special Fees.

Special Note: May be repeated twice for credit with a change of subtitle.

Conducted in Spanish. Offered as Demand Warrants.

Intensive study of authors, literary movements, periods, and/or genres.

Students will also analyze cultural material other than texts. Introduces students to Hispanic literature or various periods and genres in its historical and cultural context.

### SPAN A470                      **Spanish Linguistics-History of the Language**                      3 CR

Contact Hours: 3 + 0

Prerequisites: SPAN A302.

Special Fees.

Special Note: Conducted in Spanish

Survey of the history of Spanish from the fall of the Roman Empire to the present. The student will learn the history of some of the most important linguistic changes in Spanish from a synchronic and a diachronic perspective. Special attention will be paid to the linguistic changes (both vocalic, consonantal, and structural) that most affected the transformation of Late Latin into what can be known as Castilian in the Middle Ages from its inception in the IX century in a small, isolated area of the Iberian Peninsula. Through readings of contemporary discussions of the intersection between power and language in a cultural setting, the course will analyze the social, political, and historical forces that go into the creation of a national language.

### SPAN A490                      **Selected Topics**                      3 CR

#### **in Hispanic Culture and Civilization**

Contact Hours: 3 + 0

Prerequisites: SPAN A302.

Special Fees.

Special Note: Conducted in Spanish. May be repeated twice for credit with a different subtitle.

Surveys Spain's or Latin America's history and culture. Literature, painting, folklore, dance, film, and other artistic traditions are studied from a social, political, and economic perspective. Readings and lectures emphasize the multicultural patterns and the rich artistic traditions of the various peoples composing the Spanish and the Latin American worlds from ancient to modern times.

Concentrates on either Spain and its culture and civilization, or Latin America and its cultures and civilizations, or in any one particular period thereof.

## STAT - Statistics

*Offered through the College of Arts and Sciences*

*Social Sciences Building (SSB), Room 154, 786-1744*

*<http://math.uaa.alaska.edu>*

Each student enrolled in a Statistics course (except STAT A307) will be charged a lab fee.

### STAT A252                      **Elementary Statistics**                      3 CR

Contact Hours: 3 + 0

Prerequisites: MATH A105 with minimum grade of C.

Registration Restrictions: If prerequisite is not satisfied, appropriate SAT, ACT, or AP scores or approved UAA placement test required.

Course Attributes: UAA GER Quantitative Skill Requirement.

Special Fees.

Special Note: A student may apply no more than 3 credits from STAT A252 or BA A273 toward the graduation requirements for a baccalaureate degree.

Introduction to statistical reasoning. Emphasis on concepts rather than in-depth coverage of traditional statistical methods. Topics include sampling and experimentation, descriptive statistics, probability, binomial and normal distributions, estimation, single-sample and two-sample hypothesis tests. Additional topics will be selected from descriptive methods in regression and correlation, or contingency table analysis.

### STAT A253                      **Applied Statistics for the Sciences**                      4 CR

Contact Hours: 4 + 0

Prerequisites: MATH A107 or MATH A109.

Registration Restrictions: If prerequisite is not satisfied, appropriate SAT, ACT, or AP scores or approved UAA placement test required.

Course Attributes: UAA GER Quantitative Skill Requirement.

Special Fees.

Intensive survey course with applications for the sciences. Topics include descriptive statistics, probability, random variables, binomial, Poisson and normal distributions, estimation and hypothesis testing of common parameters, analysis of variance for single factor and two factors, correlation, and simple linear regression. A major statistical software package will be utilized.

### STAT A307                      **Probability and Statistics**                      4 CR

Contact Hours: 4 + 0

Prerequisites: MATH A201 with minimum grade of C or MATH A272 with minimum grade of C.

Course Attributes: UAA GER Quantitative Skill Requirement.

A calculus-based introduction to probability and statistics with emphasis on scientific applications. Topics include probability, probability distributions for discrete and continuous random variables, joint distributions, mathematical expectation, moment generators, functions of random variables, estimation, and the study of power and significance of hypothesis tests.

### STAT A308                      **Intermediate Statistics for the Sciences**                      3 CR

Contact Hours: 3 + 0

Prerequisites: STAT A252 or STAT A253 or STAT A307.

Registration Restrictions: 100-level Natural Sciences course and a 100-level Social Sciences course, junior standing, and completion of GER Tier 1 (basic college-level skills) courses.

Course Attributes: UAA GER Integrative Capstone.

Special Fees.

Introduction to statistical experimentation and research methods with applications to natural and social sciences. General concepts of estimation and inferences. Systematic coverage of more widely used statistical methods, including simple and multiple regression, single factor and multifactor analysis of variance, multiple comparisons, goodness of fit tests, contingency tables, nonparametric procedures, and power of tests. At least one major statistical software package is introduced to aid calculations required for many of the techniques. Students are expected to make a presentation in an applied field and complete a data-based project as part of the course requirement.

<b>STAT A402</b>	<b>Scientific Sampling</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: STAT A252 or STAT A253 or STAT A307. Special Fees.		
Sampling methods including simple random, stratified, systematic, and cluster. Special emphasis is placed on estimation procedures including ratio and regression methods, and topics selected from: allocations, direct sampling, inverse sampling, randomized response sampling, computer simulation of random variates, bootstrap, jackknife, and cross-validation.		
<b>STAT A403</b>	<b>Regression Analysis</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: STAT A308. Special Fees.		
Simple and multiple regression, statistical inferences in regression, matrix formulation of regression, polynomial regression, ridge regression, nonlinear regression, and normal correlation models. A major statistical software package is used as a tool to aid calculations required for many of the techniques.		
<b>STAT A404</b>	<b>Analysis of Variance</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: STAT A308. Special Fees.		
Single-factor models, factor effects, nonparametric tests, two-factor models, random and mixed effects models, multifactor studies, analysis of covariance, and selected experimental designs. A major statistical software package is used as a tool to aid calculations required for many of the techniques.		
<b>STAT A405</b>	<b>Nonparametric Statistics</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: STAT A308. Special Fees.		
Nonparametric methods including the binomial test and sign test. Contingency tables with Chi-square tests and goodness-of-fit tests. Tests based on ranks including the Wilcoxon signed ranks test, Mann-Whitney U-test, Kruskal-Wallis test, Friedman test, rank correlation, and Kolmogorov-Smirnov type tests. A major statistical software package is used as a tool to aid calculations required for many of the techniques.		
<b>STAT A407</b>	<b>Time Series Analysis</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: STAT A307 or STAT A308. Special Fees.		
Decomposition of time series, seasonal adjustment methods, and index numbers. Forecasting models, including causal models, trend models, and smoothing models. Additional topics include autoregressive (AR) forecasting models, moving average (MA) forecasting models, and integrated (ARIMA) forecasting models. A major statistical software package is used as a tool to aid calculations required for many of the techniques.		
<b>STAT A408</b>	<b>Multivariate Statistics</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: STAT A308. Special Fees.		
Multivariate statistical methods including exploratory data analysis, geometrical interpretation of multivariate data, multivariate tests of hypotheses, multivariate analysis of variance, multivariate multiple regression, principal components, factor analysis, discriminant analysis, cluster analysis, and multidimensional scaling. A major statistical software package is used as a tool to aid calculations required for many of the techniques.		
<b>STAT A490</b>	<b>Selected Topics in Statistics</b>	<b>1-3 CR</b>
Contact Hours: 1-3 + 0 Registration Restrictions: Instructor's permission and a designated STAT course. Special Fees. Special Note: Depending on topics selected, use of a statistical software package may be required. May be repeated for credit with a change of subtitle.		
Advanced topics in statistics selected as a continuation of, or a complement to, the content of upper-division undergraduate statistics courses. Emphasis on applications.		
<b>STAT A601</b>	<b>Statistical Methods</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: STAT A252 or STAT A253. Registration Restrictions: Instructor approved introductory statistics course. Special Fees.		
Parametric and nonparametric statistical methods in research for graduate students majoring in natural sciences or social sciences. The topics are selected from, but not restricted to, contingency tables and Chi-square tests, correlation, simple linear regression and multiple regression, design and analysis of experiments, logistic regression, and introduction to multivariate statistics. A major statistical software package is used as a tool to aid calculations for many of the techniques. A research project is required from each student as part of the course requirement.		

## SWK - Social Work

*Offered through the College of Health & Social Welfare,  
Gordon Hartlieb Hall (GHH), Room 106, 786-6900,  
[www.uaa.alaska.edu/socialwork](http://www.uaa.alaska.edu/socialwork)*

<b>SWK A106</b>	<b>Introduction to Social Welfare</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: SOC A101. Crosslisted with: HUMS A106. Course Attributes: UAA GER Social Sciences Requirement.		
Analyzes social inequality and the American social welfare state. Traces historical evolution of government and non-government response to the provision of basic needs, opportunities, and rights for its citizenry, especially vulnerable populations. Investigates historical and persisting dilemmas--ethical, political, cultural, and economic--explicit and implicit, in achieving social justice. Assists in understanding of social welfare problems and solutions.		
<b>SWK A206</b>	<b>Introduction to Social Work</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: HUMS A106 or SWK A106.		
Introduces the profession of social work and its place in the social welfare institution. Emphasis is placed upon consumer-centered, generalist social work and the knowledge, skills, abilities, and values necessary for professional practice. Fields of social work practice are studied in terms of the programs and services provided to consumer systems and social work's role within these fields.		
<b>SWK A243</b>	<b>Cultural Diversity and Community Service Learning</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Course Attributes: UAA GER Social Sciences Requirement.		
An introduction to the issues of diversity in the United States from a social work perspective. Focuses on sensitivity to populations at risk of discrimination and oppression. Knowledge and insights gained through the readings, class discussions, and activities will be applied to students' interactions with clients of community-based partner organizations as part of a required service learning component.		
<b>SWK A290</b>	<b>Special Topics in Social Work</b>	<b>1-3 CR</b>
Contact Hours: 1-3 + 0 Special Note: May be repeated for credit with a change of topics for a maximum of 6 credits. Introduction to special topics related to social work practice.		
<b>SWK A330</b>	<b>Social Work Practice I</b>	<b>4 CR</b>
Contact Hours: 3 + 2 Prerequisites: SWK A206.		
Introduces basic interviewing skills and the planned change process for the social work profession. Emphasis will be on understanding and implementing a planned change process with individuals, supported by social work values, ethics, skills, and theory. Course includes lecture and interviewing lab.		
<b>SWK A331</b>	<b>Social Work Practice II: Organizations and Communities</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: SWK A330.		
Generalist social work practice course with emphasis on using the planned change process with organizations and communities. Covers selected theoretical frameworks applicable to professional practice with these macro client systems.		
<b>SWK A342</b>	<b>Human Behavior in the Social Environment</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: PSY A150 and [BIOL A102 or BIOL A111 or BIOL A112 or BIOL A115 or BIOL A116 or LSIS A102 or LSIS A201].		
Identification and analysis of various theoretical frameworks for understanding human behavior with emphasis on interactions between the individual and the environment. A social systems model serves as the organizing framework for addressing the behavior and development of individuals, groups, families, organizations, and communities with emphasis on the reciprocal influences between individuals, societal institutions, and diverse economic, political, and psychological variables which influence behavior, growth, development, and change.		
<b>SWK A363</b>	<b>Great Books in Social Work</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: ENGL A111 and [HUMS A106 or SWK A106].		
Focuses on the directed reading of a social work text which has enduring significance for the profession, supplemented by other readings. The focal text and supplemental readings will vary with the instructor.		

## Course Descriptions

<p><b>SWK A406 Social Welfare: Policies and Issues 3 CR</b>            Contact Hours: 3 + 0            Prerequisites: SWK A206.            Formulation of social welfare policy as the result of interacting social, political, and economic factors. Emphasis is placed on analyzing various current social welfare policies and on methods of influencing policy development and change.</p> <p><b>SWK A409 Introduction to Child Welfare 3 CR</b>            Contact Hours: 3 + 0            Survey of public and private child welfare services from a historical perspective and examination of current child welfare services available to children and their families. National standards for services are reviewed along with policy development, legislation, funding and research related to programs, and service delivery. Services such as in-home support, permanency planning, child protection, foster care, adoption and residential care will be addressed.</p> <p><b>SWK A424 Social Work Research 3 CR</b>            Contact Hours: 3 + 0            Prerequisites: SWK A206.            Introduces students to fundamental research principles and practices in social work. Emphasis is on preparing students to be informed consumers of the professional research literature.</p> <p><b>SWK A430 Social Work Practice III: Groups and Families 3 CR</b>            Contact Hours: 3 + 0            Prerequisites: SWK A331.            Registration Restrictions: Admission to the BSW program at the University of Alaska Anchorage.            Corequisite: SWK A495A.            Focuses on generalist social work practice with groups and families. Emphasis will be on understanding and implementing a planned change process with groups and families, supported by social work theories, skills, values, and ethics.</p> <p><b>SWK A431 Social Work Practice IV: Integrative Capstone 3 CR</b>            Contact Hours: 3 + 0            Prerequisites: SWK A430 and SWK A495A.            Registration Restrictions: Admission to BSW Program at the University of Alaska Anchorage. Completion of GER Tier 1 (basic college-level skills) courses and junior standing.            Corequisite: SWK A495B.            Course Attributes: UAA GER Integrative Capstone.            Recaps and expands upon the material in Social Work Practice I-III as well as other Social Work major requirements. Special attention is paid to the transition from student to emerging professional, with emphasis on professional competence, evidence-based practice, ethics, and diversity in 21st century Alaska.</p> <p><b>SWK A440 Social Work Practice in Mental Health and Addictions 3 CR</b>            Contact Hours: 3 + 0            Registration Restrictions: Junior or senior standing. Consent of instructor.            Preparation for work in a variety of social service settings in which clients may be coping with problems related to mental disorders and/or addiction. A research based analysis of addictions and mental disorders as they are manifested independently and in combination; and the impact of those disorders upon clients involved in a variety of service systems such as child welfare, corrections, and domestic violence.</p> <p><b>SWK A450 Child Protective Services 3 CR</b>            Contact Hours: 3 + 0            Registration Restrictions: Junior or senior standing. Consent of instructor.            Prepares the student for entry level practice in Alaska's child protection system. Covers the knowledge and skills required to provide investigation, protection, family preservation and permanency planning services to children who have been abused and/or neglected and their families.</p> <p><b>SWK A470 Social Work with the Aging and Elderly 3 CR</b>            Contact Hours: 3 + 0            Development of concepts related to psychological, biological and economic issues of aging and the role of social work in responding to those issues. Gerontological content from human behavior, social policy, research and direct/indirect practice is analyzed in relation to social work practice with people who are aging and elderly.</p> <p><b>SWK A473 Geriatric Social Work Practice 3 CR</b>            Contact Hours: 3 + 0            Registration Restrictions: Departmental approval required            May be stacked with: SWK A673.            Covers the knowledge, skills, and values needed for effective social work practice with older adults and their families. Students will have the opportunity to develop the capability for accurate multidimensional assessments and effective interventions with and on behalf of older adults and their families.</p>	<p><b>SWK A481 Case Management in Social Work Practice 3 CR</b>            Contact Hours: 3 + 0            Prerequisites: SWK A330.            Covers the identification of issues, procedures, responsibilities, skills, and processes for effective case management. Includes theory-based skills regarding client identification and outreach, assessment, service planning, coordination, monitoring, advocacy, and evaluation along with written communication skills for coordinated service delivery. Issues relevant to special client populations are identified and analyzed.</p> <p><b>SWK A490 Selected Topics in Social Work 1-3 CR</b>            Contact Hours: 1-3 + 0            Registration Restrictions: Junior or Senior level standing.            Special Fees.            Focus on current topics related to social work services, diverse client groups and field of practice.</p> <p><b>SWK A495A Social Work Practicum I 6 CR</b>            Contact Hours: 3 + 15            Prerequisites: SWK A331.            Registration Restrictions: Admission to the BSW program at the University of Alaska Anchorage.            Corequisite: SWK A430.            Special Fees.            Initial social work practicum/field placement in which knowledge, skills, values, and ethics of generalist social work are applied to client-centered planned change. Emphasis is on application of generalist practice skills in the areas of interviewing, assessment, and planning for client system intervention.</p> <p><b>SWK A495B Social Work Practicum II 6 CR</b>            Contact Hours: 3 + 15            Prerequisites: SWK A430 and SWK A495A.            Registration Restrictions: Admission to the BSW program at the University of Alaska Anchorage.            Corequisite: SWK A431.            Special Fees.            Continuation of social work practicum/field placement in which knowledge, skills, values, and ethics of generalist social work are applied to client-centered planned change. Emphasis is on application of generalist practice skills in the areas of planning, implementing, evaluating, and terminating client system intervention. Application of social work roles and readiness for entry into the profession are key objectives.</p> <p><b>SWK A498 Advanced Community-Based Research 3 CR</b>            Contact Hours: 1 + 4            Prerequisites: SWK A424.            Application of research skills to a social welfare problem in collaboration with a community partner under the guidance of a faculty mentor. Projects must demonstrate advanced scholarship grounded in the theory and professional standards of social work practice.</p> <p><b>SWK A607 Social Welfare Policy and Services 3 CR</b>            Contact Hours: 3 + 0            Registration Restrictions: Admission to the MSW program at the University of Alaska Anchorage.            Provides a basic understanding of the history and current patterns of provision of social welfare services in the United States. Content includes the response of the social welfare system to those in need and the role of the legislature, interest groups, and advocates in the policy-making process. Problems and issues that people confront as a result of discrimination are examined. Policy analysis frameworks are used to identify key issues, understand policy development, and assess the impact of social welfare policy in providing economic and social justice for poor and at-risk populations.</p> <p><b>SWK A608 Social Policy for Advanced Generalist Practice 3 CR</b>            Contact Hours: 3 + 0            Prerequisites: SWK A607.            Registration Restrictions: Admission to the MSW program at the University of Alaska Anchorage. If prerequisite is not met, MSW admission with advanced standing.            Prepares practitioners for developing policies and programs in a political economy. Examines contemporary social needs in a diverse and inequitable society. Emphasizes roles of research and evaluation in a policy process.</p> <p><b>SWK A624 Foundation Research Methods 4 CR</b>            Contact Hours: 3 + 2            Registration Restrictions: Admission to the MSW program at the University of Alaska Anchorage.            Introduces students to fundamental research principles and practices in social work. Emphasis is on preparing students to be informed consumers of the professional research literature.</p>
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<b>SWK A628</b>	<b>Program Evaluation</b>	<b>3 CR</b>	<b>SWK A639</b>	<b>Advanced Generalist Intensive Practicum</b>	<b>7 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Successful completion of MSW foundation requirements or admission as advanced standing, or graduate standing in Health Sciences. Crosslisted with: HS A628. Special Fees. Theory and practice of agency or community-based research and evaluation. Course topics include commonly used evaluation models and research designs, politics and ethics of conducting and using research in an applied setting, communicating findings.			Contact Hours: 3 + 36 Registration Restrictions: Admission to the MSW Program at the University of Alaska Anchorage with concurrent enrollment in an MSW practice course and either successful completion of foundation curriculum or advanced standing status. Corequisite: SWK A633 or SWK A634 or SWK A635. Special Fees. Advanced generalist block practicum in which student performs as an advanced generalist social worker within an organization and/or community context. The student completes seminar and 540 practicum hours in an approved setting under the supervision of a MSW field instructor.		
<b>SWK A630</b>	<b>Practice Skills Lab</b>	<b>1 CR</b>	<b>SWK A641</b>	<b>Child Trauma</b>	<b>3 CR</b>
Contact Hours: 0 + 3 Registration Restrictions: Admission to the MSW program at the University of Alaska Anchorage. Grade Mode: Pass/No Pass. Knowledge and understanding of basic interpersonal skills needed for generalist social work practice. Experience in applying the skills to individual, family, and group settings. Attention to cross-cultural communication skills and nontraditional settings.			Contact Hours: 3 + 0 Registration Restrictions: Graduate standing Understanding of the impact of trauma on children using contextual approach. Emphasis on child trauma from developmental, ecological, etiological, epidemiological, systemic, neurobiological, physiological, and psychodynamic approaches. Examine different theoretical approaches to child trauma and child trauma treatment and examine intervention approaches at the level of the individual, family and system. Emphasis on trauma in the context of attachment, relationships and development and issues related to diagnosis and assessment.		
<b>SWK A631</b>	<b>Foundation Practice</b>	<b>3 CR</b>	<b>SWK A642</b>	<b>Human Behavior in the Social Environment</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Admission to the MSW Program at the University of Alaska Anchorage. Introduction to generalist social work practice, focusing on problem-solving and planned change for clients and systems in need of professional intervention. Emphasis is on professional identity, values, ethical and legal issues in practice, functioning on multidisciplinary teams, technical writing, and evidence-based practice.			Contact Hours: 3 + 0 Registration Restrictions: Admission to the MSW Program at the University of Alaska Anchorage. Identification and advanced analysis of various theoretical frameworks for understanding human behavior with emphasis on the reciprocal interactions between the individual and the systems of social environment including families, groups, organizations, and communities.		
<b>SWK A632</b>	<b>Direct Practice I</b>	<b>3 CR</b>	<b>SWK A643</b>	<b>Human Diversity in Social Work Practice</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: SWK A631. Registration Restrictions: Admission to the MSW Program at the University of Alaska Anchorage. Continues the problem-solving/planned change approach with attention to assessment, intervention, and termination. Emphasis is on ways of knowing. Includes evidence-based practice and introduction to bio/psycho/social theories which inform social work practice with individuals, families, and groups. The course also addresses "being a practitioner" within an agency setting.			Contact Hours: 3 + 0 Registration Restrictions: Admission to the MSW Program at the University of Alaska Anchorage. Examination of human diversity in relation to discrimination, oppression, and populations at risk. Exploration of strategies that advance social and economic justice. Historical and contemporary influences on group membership and affiliation are addressed along with values, knowledge, and skills for effective generalist social work practice with diverse populations and clients.		
<b>SWK A633</b>	<b>Direct Practice II</b>	<b>3 CR</b>	<b>SWK A644</b>	<b>Generalist Practicum I</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Admission to the MSW Program at the University of Alaska Anchorage with advanced standing or completion of foundation practice sequence. Focuses on the application of practice theory in the context of advanced generalist practice. Emphasizes the refinement of skills for assessment, intervention, and evaluation of social work practice with a variety of client systems focusing on the theoretical and empirical justification for those interventions.			Contact Hours: 3 + 16 Registration Restrictions: Admission to the MSW Program at the University of Alaska Anchorage with concurrent enrollment in a MSW practice course. Corequisite: SWK A632. Special Fees. Part one of generalist practicum sequence. Student applies social work knowledge, skills, values, and ethics within an organization and/or community context. The student completes 240 practicum hours in an approved setting under the supervision of a MSW field instructor appointed by the University.		
<b>SWK A634</b>	<b>Organizational Practice</b>	<b>3 CR</b>	<b>SWK A645</b>	<b>Generalist Practicum II</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Admission to the MSW Program at the University of Alaska Anchorage and successful completion of the foundation practice sequence or advanced standing or admission to the Graduate Certificate in Social Work. Provides an ecosystemic perspective for organizational social work practice with programs, staff, organizations, and larger systems. Covers advanced generalist roles such as agency administrator, program planner, supervisor, and community organizer. Specific attention is also given to the challenges encountered when working with larger systems.			Contact Hours: 3 + 16 Prerequisites: SWK A644. Registration Restrictions: Admission to the MSW Program at the University of Alaska Anchorage with concurrent enrollment in a MSW practice course. Corequisite: SWK A636. Special Fees. Part two of generalist practicum sequence. Student applies social work knowledge, skills, values, and ethics within an organization and/or community context. The student completes 240 practicum hours in an approved setting under the supervision of a MSW field instructor appointed by the University.		
<b>SWK A635</b>	<b>Advanced Generalist Integrative Seminar</b>	<b>3 CR</b>	<b>SWK A646</b>	<b>Advanced Generalist Practicum I</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: SWK A633 and SWK A634. Registration Restrictions: Admission to the MSW Program at the University of Alaska Anchorage and successful completion of foundation curriculum or advanced standing. Capstone course for the advanced generalist practice sequence. Provides students with the opportunity to integrate ecosystemic theory and problem-solving approaches with direct and organizational practice. Fulfills competency exam requirement.			Contact Hours: 3 + 16 Prerequisites: (SWK A633 or concurrent enrollment) or (SWK A634 or concurrent enrollment). Registration Restrictions: Admission to the MSW Program at the University of Alaska Anchorage with concurrent enrollment in a MSW practice course. Special Fees. Part one of advanced generalist practicum sequence in which student performs as an advanced generalist social worker within an organization and/or community context. The student completes 240 practicum hours in an approved setting under the supervision of a MSW field instructor.		
<b>SWK A636</b>	<b>Community Practice</b>	<b>3 CR</b>			
Contact Hours: 3 + 0 Registration Restrictions: Admission to the MSW Program at the University of Alaska Anchorage. Focuses on practice roles and skills in community development, community planning and community organizing, and analysis of community practice models.					

## Course Descriptions

<p><b>SWK A647</b>      <b>Advanced Generalist Practicum II</b>      <b>4 CR</b>            Contact Hours: 4 + 20            Prerequisites: SWK A646.            Registration Restrictions: Admission to the MSW Program at the University of Alaska Anchorage with concurrent enrollment in an MSW practice course.            Corequisite: SWK A635.            Special Fees.            Part two of advanced generalist practicum sequence in which student performs as an advanced generalist social worker within an organization and/or community context. The student completes 300 practicum hours in an approved setting under the supervision of a field instructor.</p>	<p><b>SWK A663</b>      <b>Clinical Social Work with Children and Adolescents</b>      <b>2-3 CR</b>            Contact Hours: 2-3 + 0            Level Restriction: Must be Graduate - UAA level.            Registration Restrictions: Graduate standing            Preparation for clinical work with children, adolescents and their families. Review of fundamental issues in child and adolescent development will provide the groundwork for development of effective assessment and treatment skills. Emphasis will be placed upon understanding the child/adolescent within the family, community, and cultural context, incorporating these factors into treatment approaches and planning.</p>
<p><b>SWK A651</b>      <b>Social Work Practice in Addictions and Mental Health</b>      <b>3 CR</b>            Contact Hours: 3 + 0            Level Restriction: Must be Graduate - UAA level.            Registration Restrictions: Graduate standing.            Preparation for work in a variety of social service settings in which clients may be coping with problems related to mental disorders and/or addiction. A research based analysis of addictions and mental disorders as they are manifested independently and in combination; and the impact of those disorders upon clients involved in a variety of service systems such as child welfare, corrections and domestic violence.</p>	<p><b>SWK A664</b>      <b>Clinical Social Work with Adults</b>      <b>2 CR</b>            Contact Hours: 2 + 0            Prerequisites: SWK A651.            Level Restriction: Must be Graduate - UAA level.            Registration Restrictions: Graduate standing.            Prepares students for advanced clinical social work in a variety of settings with adults suffering from behavioral disorders and problems coping with environmental stressors. Focuses upon skills for assessment, application of evidence-based interventions and evaluation.</p>
<p><b>SWK A654</b>      <b>Supervisory Management in Social Work</b>      <b>3 CR</b>            Contact Hours: 3 + 0            Registration Restrictions: Graduate Standing.            Prepares graduate students and practitioners for social work supervisory management roles. The course provides a theoretical framework for supervisory management methods and processes and will address essential knowledge, values, and skills in these professional functions. Issues of gender and race as it relates to supervisory management will also be explored.</p>	<p><b>SWK A665</b>      <b>Comparative Group Work</b>      <b>3 CR</b>            Contact Hours: 3 + 0            Level Restriction: Must be Graduate - UAA level.            Registration Restrictions: Graduate standing.            Equips students with theoretical and practical knowledge to differentially implement group interventions in a variety of settings with diverse populations. This course focuses on professional practice with groups.</p>
<p><b>SWK A656</b>      <b>Treatment of Families</b>      <b>3 CR</b>            Contact Hours: 3 + 0            Level Restriction: Must be Graduate - UAA level.            Registration Restrictions: Graduate standing.            Explores a range of theories to inform social work practice with families and couples. The course traces the evolution of family systems theories and other perspectives with emphasis upon the development of skills to apply evidence based interventions with diverse families in need.</p>	<p><b>SWK A667</b>      <b>Clinical Group Therapy</b>      <b>2 CR</b>            Contact Hours: 2 + 0            Prerequisites: SWK A665.            Level Restriction: Must be Graduate - UAA level.            Registration Restrictions: Graduate standing. Students must currently be leading or have lead a clinical therapy group.            Equips students with knowledge and skills to independently practice clinical group therapy. Theoretical concepts and scientific findings will be applied to understand the practice of clinical group therapy that is short-term, structured, and theme-centered.</p>
<p><b>SWK A659</b>      <b>Leadership and Decision Making in Social Work</b>      <b>3 CR</b>            Contact Hours: 3 + 0            Level Restriction: Must be Graduate - UAA level.            Registration Restrictions: Graduate standing.            Focuses on knowledge and skills related to leadership and decision making for potential leaders of social service organizations. Emphases include leadership theory, analysis of leadership styles, decision making theory and techniques. Issues of gender and race as they relate to leadership and decision making will also be explored.</p>	<p><b>SWK A668</b>      <b>Group Supervision I</b>      <b>1 CR</b>            Contact Hours: 1 + 0            Prerequisites: SWK A651.            Registration Restrictions: Post-graduate MSW, admission to Graduate Certificate in Clinical Social Work Practice; employed in an approved clinical social work position.            Provides the beginning phase of clinical group supervision of entry-level MSW graduates. Group supervision is a forum for learning values, knowledge, and skills as a disciplined approach to clinical social work practice.</p>
<p><b>SWK A660</b>      <b>Financial Leadership for Social Work Administrators</b>      <b>2 CR</b>            Contact Hours: 2 + 0            Prerequisites: SWK A634.            Level Restriction: Must be Graduate - UAA level.            Registration Restrictions: Graduate standing.            Focuses on the budgeting process and how it relates to social service program planning, accounting methods and procedures, financial evaluation, and financial accountability. Values and ethics relating to financial administration in the nonprofit sector are emphasized. Gender and race and their interpersonal/social influences on the financial management process are explored.</p>	<p><b>SWK A670</b>      <b>Group Supervision III</b>      <b>1 CR</b>            Contact Hours: 1 + 0            Registration Restrictions: Post-graduate MSW; admission to Graduate Certificate in Clinical Social Work Practice; employed in an approved clinical social work position.            Provides the ending phase of clinical group supervision of entry-level MSW graduates. Group supervision is a forum for learning values, knowledge, and skills as a disciplined approach to clinical social work practice.</p>
<p><b>SWK A661</b>      <b>Marketing in the Social Sector</b>      <b>2 CR</b>            Contact Hours: 2 + 0            Level Restriction: Must be Graduate - UAA level.            Registration Restrictions: Graduate standing.            Focuses on the nature, role, and relevance of social sector marketing, the nature of public relations activities, the major concepts and tools to analyze an organization's markets, and potential strategies/guidelines for the development and implementation of marketing programs.</p>	<p><b>SWK A672</b>      <b>Social Work with Families and Couples</b>      <b>2 CR</b>            Contact Hours: 2 + 0            Prerequisites: SWK A656.            Level Restriction: Must be Graduate - UAA level.            Registration Restrictions: Graduate standing.            Prepares students for the application of family and couple therapy in clinical settings. Theoretical concepts, assessment methods, and intervention techniques will provide students the ability to formulate interventions with families and couples.</p>
<p><b>SWK A662</b>      <b>Financial Resource Development for Social Services</b>      <b>2 CR</b>            Contact Hours: 2 + 0            Level Restriction: Must be Graduate - UAA level.            Registration Restrictions: Graduate standing.            Explores the planning, conducting, and evaluation of fundraising activities, the development of mission-based fundraising, donor identification and relations, spectrum-wide fundraising (in-kind support, private support, private/public grants), social entrepreneurship and fundraising ethics and accountability.</p>	<p><b>SWK A673</b>      <b>Geriatric Social Work Practice</b>      <b>3 CR</b>            Contact Hours: 3 + 0            Level Restriction: Must be Graduate - UAA level.            Registration Restrictions: Graduate standing            May be stacked with: SWK A473.            Covers the knowledge, skills, and values needed for effective social work practice with older adults and their families. Students will have the opportunity to develop the capability for accurate multidimensional assessments and effective interventions with and on behalf of older adults and their families.</p>

**SWK A677      Multidisciplinary Seminar  
in Children's Mental Health      1 CR**

Contact Hours: 1 + 0

Level Restriction: Must be Graduate - UAA level.

Registration Restrictions: Graduate standing

Crosslisted with: EDSE A677 and PSY A677.

Special Note: Course is one credit per semester over two sequential semesters

Provides an interdisciplinary approach to working with children and families in a variety of behavioral/mental health and educational settings.

**SWK A690      Selected Topics in Social Work      1-3 CR**

Contact Hours: 1-3 + 0

Level Restriction: Must be Graduate - UAA level.

Registration Restrictions: Graduate standing.

Special Note: May be repeated for credit with a different subtitle for a maximum of 9 credits.

Focus on current topics related to social work with various system levels (individuals, families, groups, communities, and organizations), fields of practice, and settings.

**SWK A691      Children's Mental Health Systems of Care      3 CR**

Contact Hours: 3 + 0

Registration Restrictions: Graduate standing

Crosslisted with: EDSE A691 and PSY A691.

Expands systems of care as a coordinated network of community-based services and supports that are organized, multidisciplinary, and in partnership with youth and family. Addresses the cultural and linguistic needs of families in order to meet the challenges of children and youth with serious mental health needs.

**SWK A698      MSW Research Project      3 CR**

Contact Hours: 1 + 9

Prerequisites: SWK A628.

Registration Restrictions: Admission to the MSW Program at the University of Alaska Anchorage.

Students complete an applied research project of use to a social service program and/or the profession. Completion of the project, including statement of the problem, literature review, design methodology, data analysis, and implications of the findings. Public presentation of the project culminates in the research sequence.

## TECH - Technology

*Offered through the Community & Technical College**University Center (UC), Room 130, 786-6423**www.uaa.alaska.edu/ctc***TECH A101      Introduction to Technological Principles      3 CR**

Contact Hours: 2 + 2

Prerequisites: (MATH A105 or concurrent enrollment).

Introduces basic physical properties commonly found in a technical field. Emphasizes data collection and test equipment procedures.

**TECH A295      Technical Internship      1-6 CR**

Contact Hours: 0 + 3-18

Registration Restrictions: Instructor permission required.

Grade Mode: Pass/No Pass.

Special Fees.

Provides work experience, familiarization with technical operations and equipment and insight to management practices closely related with technology-rich career fields. Work for the internship is supervised by industry and faculty members.

**TECH A302      Operational Safety      3 CR**

Contact Hours: 3 + 0

Registration Restrictions: Tier 1 basic college-level skills

Special Fees.

Study of safety as a vital element of human behavior. Covers governmental influence, hazard awareness and control, operational considerations in the workplace, accidents and planning.

**TECH A305      Technology Management      3 CR**

Contact Hours: 3 + 0

Registration Restrictions: Tier 1 basic college-level skills

Special Fees.

Presents information to help students manage technology challenges in relation to technical skills and experiences. Analyzes history of the technology that students have been trained in and researches future issues and trends likely to affect technical experts or those who manage the technology.

**TECH A315      Leading Technical Employees      3 CR**

Contact Hours: 3 + 0

Registration Restrictions: Completion of at least 3 credits each of oral and written communication skills courses from GER approved list.

Introduces principles of management and leadership of technical employees, defined as those who research, develop, design, build, test, install and support technology. Explores the nature and challenges of technical work, productivity and competitiveness in the global economy. Includes strategies for recruiting, developing, motivating and retaining qualified technical employees.

**TECH A412      Advanced Technical Experiences:  
Discipline Area      1-9 CR**

Contact Hours: 0-9 + 0-27

Registration Restrictions: Faculty approval required.

Crosslisted with: VE A412.

Supports a student's opportunity to participate in outside professional development to increase mastery in a specific technical discipline. This may include participation in classes offered by industry, proprietary schools, or other agencies. Each will be evaluated on an individual basis and must support the student's professional objectives.

**TECH A423      Process Improvement Fundamentals      3 CR**

Contact Hours: 3 + 0

Prerequisites: BA A273 or STAT A252 or STAT A253.

Registration Restrictions: Completion of at least 3 credits each of oral and written communication skills courses from GER approved list.

Explores business process improvement fundamentals, techniques, and the history of the quality movement that supports organizational efforts to become and remain competitive. Covers principles, standards and tools of process improvement and quality management in integrating technical functions towards customer satisfaction and technical innovation.

**TECH A433      Project Design, Implementation,  
and Control      3 CR**

Contact Hours: 3 + 0

Prerequisites: [MATH A107 or MATH A109] and TECH A305.

Comprehensive study of the principles and practices of project planning, implementation, and control as applied by technicians and technical managers.

**TECH A443      Quality Leadership      3 CR**

Contact Hours: 3 + 0

Prerequisites: MATH A107 or MATH A109.

Registration Restrictions: Junior standing.

Special Fees.

Supports the principles and practices of quality leadership. Demonstrates ways to achieve continuous improvement for a successful workplace environment. Emphasizes leadership skills applicable to technicians and managers as they work with customers, subordinates, peers, and supervisors.

**TECH A453      Capstone Project      3 CR**

Contact Hours: 1 + 8

Prerequisites: TECH A305.

Registration Restrictions: Junior standing and faculty approval required.

Completion of GER Tier 1 (basic college-level skills) courses.

Course Attributes: UAA GER Integrative Capstone.

Special Note: This is an independent project which requires at least 135 hours of commitment including bi-weekly meetings with faculty advisor and other Bachelor of Science, Technology students.

Integrates technical and general education knowledge to complete a project that demonstrates community involvement related to typical problems or issues in students' career fields.

**TECH A490      Selected Topics in Technology Management      1-3 CR**

Contact Hours: 1-3 + 0

Registration Restrictions: Faculty approval required.

Special Note: May be repeated with a change of topic for a maximum of 9 credits.

Provides customized development training in areas related to technology management. Course content is determined by specific industry needs.

**TECH A495      Technical Internship      1-3 CR**

Contact Hours: 0 + 5-15

Registration Restrictions: Faculty approval required.

Crosslisted with: VE A495.

Special Fees.

Special Note: Requires at least 75 hours of work internship per credit hour plus additional instructor contact time.

Supports supervisory and management practices used in business operations through a work experience internship.

## THR - Theatre

*Offered through the College of Arts and Sciences*

*Fine Arts Building (ARTS), Room 302, 786-1792*

<http://theatre.uaa.alaska.edu>

**THR A111 Introduction to the Theatre 3 CR**

Contact Hours: 3 + 0

Course Attributes: UAA GER Fine Arts Requirement.

Survey of theatre with focus on artists who contribute to theatrical production viewed within the context of historical styles and development.

**THR A121 Introduction to Acting 3 CR**

Contact Hours: 2 + 3

An introduction to basic acting techniques with emphasis on creativity, concentration, relaxation, physical and vocal awareness, and the Stanislavsky method of acting.

**THR A124 Dance for Musical Theatre I 2 CR**

Contact Hours: 1 + 2

Crosslisted with: DNCE A124.

Special Fees.

Special Note: May be repeated three times for credit.

Introduces the vocabulary, variety of movement styles and performance techniques inherent in American musical theatre, including the ability to vocalize correctly during movement. Covers a range of time periods from the 1920s to the present.

**THR A131 Theatrical Production Techniques 3 CR**

Contact Hours: 2 + 2

Corequisite: THR A131L.

Special Fees.

Introduction to the mechanics of stage production. Emphasizes safe and practical use of tools, equipment and materials employed in scene shop, lighting, backstage and costume work. Students master basic practices and techniques required for effective production work in each area.

**THR A141 Stagecraft I 3 CR**

Contact Hours: 2 + 2

Corequisite: THR A141L.

Special Fees.

Workshop in principles and techniques of contemporary theatrical production technical direction, drafting, scenery construction and rigging.

**THR A151 Makeup for the Theatre 3 CR**

Contact Hours: 3 + 0

Special Fees.

Basic principles of stage make-up techniques emphasizing the structure of the face, character interpretation, stage lighting, historical research for hair and makeup, and special 3-D effects.

**THR A195 Theatre Practicum: Performance 1-3 CR**

Contact Hours: 0 + 3-9

Registration Restrictions: Faculty permission and audition.

May be stacked with: THR A395.

Special Note: Can be repeated with a change of project for up to 9 credits.

Participation in mainstage productions as an actor, director, dancer, choreographer or assistant director.

**THR A221 Movement for the Actor 3 CR**

Contact Hours: 3 + 0

Prerequisites: THR A121.

Study of movement and its specific relationship to acting skills. Work includes analysis of nonverbal communication and developmental physical skills.

**THR A222 Voice for the Actor 3 CR**

Contact Hours: 3 + 0

Prerequisites: THR A121.

Introduces the acting student to exercises designed to free and increase the expressive power of the voice, with the primary goal being emotional honesty.

**THR A224 Dance for Musical Theatre II 2 CR**

Contact Hours: 1 + 2

Prerequisites: THR A124 or DNCE A124 with minimum grade of C.

Crosslisted with: DNCE A224.

Special Fees.

Special Note: May be repeated three times for credit.

Continuation of Dance for Musical Theatre I, building on the foundation of vocabulary, movement styles, vocalizing, and performance techniques. Techniques in improving audition skills and perfecting performance ability. Encompasses a range of time periods, from the 1920s to the present.

**THR A243 Scene Design 3 CR**

Contact Hours: 3 + 0

Prerequisites: THR A131 and THR A141.

Special Fees.

Fundamental principles of design for the stage, including drafting, rendering, theory, analysis, and practice.

**THR A257 Costume Design and Construction I 3 CR**

Contact Hours: 2 + 2

Prerequisites: THR A131.

Corequisite: THR A257L.

Basic principles of costume design with emphasis on research and rendering techniques. Overall study of costume and fashion history and its relation to theatre productions and designs.

**THR A295 Theatre Practicum: Technical 1-3 CR**

Contact Hours: 0 + 3-9

May be stacked with: THR A495.

Special Note: May be repeated for a maximum of 9 credits.

Participation in mainstage productions as member of technical staff. Credit for scene crew, light crew, props, costume crew, makeup crew, stage management, and publicity.

**THR A306 Stage Management 3 CR**

Contact Hours: 3 + 0

Prerequisites: THR A131.

Special Fees.

Explores the role and function of the stage manager in theatrical production. Provides the basic skills to work in the field of stage management. Emphasis on organization, documentation, and dissemination of information.

**THR A311 Representative Plays I 3 CR**

Contact Hours: 3 + 0

Registration Restrictions: Junior or senior standing and the completion of GER Tier 1 Written Communication requirements.

Course Attributes: UAA GER Fine Arts Requirement UAA GER Humanities Requirement.

A survey course of dramatic literature from Greek drama to 1800. Emphasis is placed upon the playwrights' work and relationship to the production of these plays in their own time and in today's theatre.

**THR A312 Representative Plays II 3 CR**

Contact Hours: 3 + 0

Registration Restrictions: Junior or senior standing and the completion of GER Tier 1 Written Communication requirements.

Course Attributes: UAA GER Fine Arts Requirement UAA GER Humanities Requirement.

A survey of dramatic literature from 1800 to the present. Emphasis is placed upon the playwrights' work and relationship to the production of these plays in their own time and in today's theatre.

**THR A315 Playwriting Workshop 3 CR**

Contact Hours: 3 + 0

Registration Restrictions: Completion of GER Tier 1 (basic college-level skills) courses.

Study and practice of script development for the stage. Class will involve staged readings of student work.

**THR A321 Meisner Acting Technique 3 CR**

Contact Hours: 2 + 3

Prerequisites: THR A121.

Registration Restrictions: Instructor permission.

Improvise technique created by Sanford Meisner to help actors feel, rather than think, their way through a scene by responding to inner impulses.

**THR A325 Theatre Speech and Dialects 3 CR**

Contact Hours: 3 + 0

Prerequisites: THR A222.

Continuation of THR A222 starting with the production and energizing of vowels and consonants. In addition to the International Phonetic Alphabet, students will develop a systematic approach for the acquisition of a foreign dialect based on tempo/rhythm, facial posture, pitch range, resonance focus, lilt pattern, topography, history, and national character.

**THR A328 Acting Shakespeare 3 CR**

Contact Hours: 2 + 3

Prerequisites: THR A121.

Special Note: THR A221 and THR A222 are recommended.

Intensive exploration of text-based analysis of Shakespearean characters. Emphasis will be placed on scene and character study in a studio setting.



<b>THR A329</b>	<b>Combat for the Stage</b>	<b>3 CR</b>	<b>THR A445</b>	<b>Advanced Theatre Production</b>	<b>3 CR</b>
Contact Hours: 2 + 3 Prerequisites: THR A121 with minimum grade of C and THR A221 with minimum grade of C. Special Fees. An introduction to the art of fighting in the theatre including basic techniques from among the following combat disciplines: unarmed, quarterstaff, single rapier, rapier and dagger, or broadsword. Emphasis is placed on safety and acting the fight as well as the effectiveness illusion of violence.			Contact Hours: 0 + 6 Prerequisites: THR A131. Registration Restrictions: Theatre major and Junior level. Advanced technical theatre course with selected emphasis in scenery design, lighting, stagecraft, costume, or directing.		
<b>THR A330</b>	<b>Combat for the Stage II</b>	<b>3 CR</b>	<b>THR A480</b>	<b>Theatre Internship</b>	<b>5-15 CR</b>
Contact Hours: 2 + 3 Prerequisites: THR A329. Special Fees. A continuation of the study begun in THR A329, Combat for the Stage. Students review unarmed and rapier and dagger techniques, and are taught broadsword, and/or quarterstaff and small sword combat. Emphasis is placed throughout on safety as well as the effectiveness of the illusion of violence.			Contact Hours: 0 + 15-45 Registration Restrictions: Junior standing and permission of department chair. Special Note: May be repeated for credit with change of project subject. Advanced theatre production course with emphasis as selected by students in direction, acting, scenery and lighting, costume design and construction, or theatre management.		
<b>THR A347</b>	<b>Lighting Design</b>	<b>3 CR</b>	<b>THR A490</b>	<b>Selected Topics in Performance</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: DNCE A185 or THR A141. Special Fees. Theory and practice of the design and execution of lighting and associated electrical effects for the stage.			Contact Hours: 3 + 0 Prerequisites: THR A121. Special Note: May be repeated for credit with change of subtitle. Current topics in theatrical performance addressing special demands of the theatre season or special faculty expertise.		
<b>THR A357</b>	<b>Costume Design and Construction II</b>	<b>3 CR</b>	<b>THR A491</b>	<b>Selected Topics in Technical Theatre</b>	<b>3 CR</b>
Contact Hours: 1 + 4 Prerequisites: THR A257. This course is a continuation of THR A257. Advanced work in costume design and construction.			Contact Hours: 3 + 0 Prerequisites: THR A243 or THR A257. Special Fees. Special Note: May be repeated with change of subtitle for a maximum of 12 credits. Current topics in technical theatre theory and practice. Includes studio work.		
<b>THR A376</b>	<b>CAD for the Arts</b>	<b>3 CR</b>	<b>THR A492</b>	<b>Senior Seminar</b>	<b>3 CR</b>
Contact Hours: 2 + 2 Prerequisites: ART A357 or THR A141. Crosslisted with: ART A376. Special Fees. Concepts and techniques of 2D and 3D computer-aided drafting. Details language and commands shared by most CAD packages with a focus on technical drawings for layout, design and 3D computer drafting and modeling techniques, with applications to scenic, lighting, and 3D studio arts.			Contact Hours: 3 + 0 Registration Restrictions: Completion of GER Tier 1 (basic college-level skills) courses and these Tier 2 Disciplinary Areas: Fine Arts, Humanities and Social Sciences. Junior or Senior level. Course Attributes: UAA GER Integrative Capstone. Special Note: May be repeated once for credit with a change in subtitle. Intensive examination of a topic in Theatre or Dance including the historical, cultural, social and political influences on each aspect of the performance area: writing, acting, movement and design with an emphasis on its relevance to a contemporary audience.		
<b>THR A395</b>	<b>Advanced Practicum: Performance</b>	<b>1-3 CR</b>	<b>THR A495</b>	<b>Advanced Practicum: Technical</b>	<b>1-3 CR</b>
Contact Hours: 0 + 3-9 Registration Restrictions: Faculty permission and audition. May be stacked with: THR A195. Special Note: May be repeated with a change of project for up to 9 credits. Performance practicum for juniors and seniors: Advanced participation in mainstage productions as an actor, director, dancer, choreographer or assistant director.			Contact Hours: 0 + 3-9 Prerequisites: THR A295. Registration Restrictions: Permission of instructor. May be stacked with: THR A295. Special Note: May be repeated with change of project for 9 credits. Technical practicum for juniors and seniors. Emphasis is on participation in a mainstage production as a significant member of the technical/production crew or design team.		
<b>THR A411</b>	<b>History of the Theatre I</b>	<b>3 CR</b>	<b>THR A498</b>	<b>Individual Research</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Junior or senior standing and the completion of GER Tier 1 Written Communication requirements. Course Attributes: UAA GER Fine Arts Requirement UAA GER Humanities Requirement. Study of theatre history from ancient Greece to 1800. The history and the influence of different cultures, traditions and technology on the development of the theatre as a social institution.			Contact Hours: 1 + 6 Registration Restrictions: Junior standing in Theatre and department chair's signature. Independent research on a specific topic or area of theatre culminating in a research paper. Participation in professional conferences and competition strongly recommended.		
<b>THR A412</b>	<b>History of the Theatre II</b>	<b>3 CR</b>	<b>THR A499</b>	<b>Senior Thesis</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Registration Restrictions: Junior or senior standing and the completion of GER Tier 1 Written Communication requirements. Course Attributes: UAA GER Fine Arts Requirement UAA GER Humanities Requirement. Continuation of THR A411. Theatre history from 1800 to modern.			Contact Hours: 0 + 9 Prerequisites: THR A498 with minimum grade of B. Registration Restrictions: Admission to the Theatre Honors program and department chair's signature. Independent or collaborative research project on a specific topic or area of theatre culminating in the presentation of a live theatre performance or design execution. Continuation and application of the research completed in THR A498 and required for the Theatre Honors Program. Participation in professional competitions strongly encouraged.		
<b>THR A431</b>	<b>Directing I</b>	<b>3 CR</b>	<b>VE - Vocational Education</b>		
Contact Hours: 3 + 0 Prerequisites: THR A243 and THR A257 and THR A306. Study of the history, theories and methods of stage direction. Culminates in the staging of a scene from a dramatic work.			<i>Offered through the Community &amp; Technical College University Center (UC), Room 130, 786-6423 <a href="http://www.uaa.alaska.edu/ctc">www.uaa.alaska.edu/ctc</a></i>		
<b>THR A435</b>	<b>Directing II</b>	<b>3 CR</b>	<b>VE A301</b>	<b>Principles of Technology</b>	<b>3 CR</b>
Contact Hours: 3 + 0 Prerequisites: THR A431. Special Note: May be repeated once for credit. Advanced study of the history, theories and methods of stage direction. Culminates in the staging of a play.			Contact Hours: 2 + 3 Special Fees. Application of basic physics to the workplace. Emphasis is on principles of applied physics in areas such as force and force transformers, energy and power, waves and vibrations, radiation and light, and their application in technology and the workplace.		

## Course Descriptions

### VE A412      **Advanced Technical Experiences: Discipline Area**      1-9 CR

Contact Hours: 0-9 + 0-27  
Registration Restrictions: Faculty approval required.  
Crosslisted with: TECH A412.

Supports a student's opportunity to participate in outside professional development to increase mastery in a specific technical discipline. This may include participation in classes offered by industry, proprietary schools, or other agencies. Each will be evaluated on an individual basis and must support the student's professional objectives.

### VE A495      **Technical Internship**      1-3 CR

Contact Hours: 0 + 5-15  
Registration Restrictions: Faculty approval required.  
Crosslisted with: TECH A495.  
Special Fees.

Special Note: Requires at least 75 hours of work internship per credit hour plus additional instructor contact time.

Supports supervisory and management practices used in business operations through a work experience internship.

## VETT - Veterinary Assisting

*Offered through Matanuska-Susitna College*

*P.O. Box 2889, Palmer, Alaska 99645, (907) 745-9774*

*www.matsu.alaska.edu*

### VETT A101      **Introduction to the Veterinary Profession**      1 CR

Contact Hours: 1 + 0

Introduction to the veterinary profession for individuals considering a career in this field. Introduces responsibilities and expectations as well as legal boundaries of a veterinary health care team.

### VETT A103      **Veterinary Office Procedures**      3 CR

Contact Hours: 3 + 0

Prerequisites: (VETT A101 or concurrent enrollment).

Provides the student with current information in veterinary practice office management. Students will apply concepts, principles, and skills to situations specific to veterinary office procedures.

### VETT A122      **Basic Handling and Behavior: Small Animals**      2 CR

Contact Hours: 2 + 0

Prerequisites: (VETT A101 or concurrent enrollment).

Introduces general topics in the veterinary field: small-animal breeds and behavior, safe animal handling and restraint, grooming, nutrition, and vaccination. Additional topics include exam room procedures (physical exam and history taking), facility maintenance, medicating, surgical assisting, and laboratory assisting.

### VETT A123      **Basic Handling and Behavior: Large Animals**      2 CR

Contact Hours: 2 + 0

Prerequisites: (VETT A101 or concurrent enrollment).

Introductory course for students considering a career in large-animal health care. Introduces large-animal nutrition, care, behavior, and restraint, including working safely with large animals.

### VETT A124      **Introduction to Small Animals**      3 CR

Contact Hours: 3 + 0

Prerequisites: (VETT A101 or concurrent enrollment).

Introductory course for students considering a career in small-animal health care. Topics include an introduction to restraint, clinical pathology, diagnostic imaging, emergency medicine, anesthesia, pharmacology and pain management, surgical and medical nursing, dentistry, and other applicable skills.

### VETT A125      **Introduction to Large Animals**      3 CR

Contact Hours: 3 + 0

Prerequisites: (VETT A101 or concurrent enrollment).

Introductory course for students considering a career in large-animal health care. Introduces clinical patient management and procedures, laboratory procedures, anesthesia, pharmacology, and surgical and medical nursing specific to large animal species.

### VETT A201      **Veterinary Anatomy and Physiology**      4 CR

Contact Hours: 3 + 2

Prerequisites: (VETT A101 or concurrent enrollment).

Registration Restrictions: Placement into PRPE A108 or higher and (high school chemistry with minimum grade of C and biology with minimum grade of C), or (CHEM A055 with minimum grade of C and BIOL A102 with minimum grade of C and BIOL A103 with minimum grade of C).

Introductory anatomy and physiology course for students considering a career or furthering their education in the veterinary field. Introduces comparative anatomy and physiologic processes for both small- and large-animal species. Includes lecture and lab components.

### VETT A295      **Veterinary Assistant Practicum**      3 CR

Contact Hours: 0 + 9

Prerequisites: (VETT A101 or concurrent enrollment).

Major Restriction: Must be Veterinary Assisting major.

Special Note: Majors only.

Students gain practical experience in a workplace setting. The faculty, practicum supervisor, and student collaboratively develop an individualized plan for workplace training to reflect the student's occupational objectives.

## VS - Vocational Skills

*Offered through Kodiak College*

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

*www.koc.alaska.edu*

### VS A125      **Woodworking I**      3 CR

Contact Hours: 1 + 2

Offered only at Kenai Peninsula College Kachemak Bay branch.

Basic course designed to familiarize the student with the safe use of a variety of modern hand and power tools. Completion of the course may result in the construction of items of personal choice.

### VS A126      **Woodworking II**      3 CR

Contact Hours: 1 + 2

Prerequisites: VS A125.

Offered only at Kenai Peninsula College Kachemak Bay branch.

Special Note: May be repeated once for degree credit.

Continuation of VS A125 with emphasis on more advanced projects and greater individual initiative.

### VS A131      **Construction for the Owner/Builder I**      3 CR

Contact Hours: 3 + 0

Familiarizes students with standard practice construction and alternatives to that practice. Includes the terms/systems involved in construction. Concepts and systems covered are foundations, floors, walls, roof, alternative energy in structures, and alternative structures.

## WELD - Welding Technology

*Offered through the Community & Technical College*

*Gordon Hartlieb Hall (GHH), Room 111, 786-6478*

*www.uaa.alaska.edu/ctc*

### WELD A101      **Gas and Arc Welding**      4 CR

Contact Hours: 2 + 6

Special Fees.

Introduces basic principles of welding. Covers oxyacetylene welding, brazing, silver soldering and oxyacetylene flame cutting in the first half of the course. Covers shielded metal arc welding the second.

### WELD A102      **Gas Welding**      2 CR

Contact Hours: 1 + 2

May be stacked with: WELD A103 and A104.

Special Fees.

Develops basic oxy-acetylene welding, brazing, and cast iron welding skills, emphasizing hands-on class assignments.

### WELD A103      **Arc Welding**      4 CR

Contact Hours: 1 + 6

May be stacked with: WELD A102 and A104.

Special Fees.

Provides training and hands-on experience required for structural steel plate welding certification. Students certify on 0.375 inch plate, open root or with backing, at ASME or AWS code standards.

### WELD A104      **Arc Welding: Low-Hydrogen Electrodes**      4 CR

Contact Hours: 1 + 6

Prerequisites: WELD A101 or WELD A103.

Registration Restrictions: Arc welding experience can substitute for prerequisites.

May be stacked with: WELD A102, A103.

Special Fees.

Develops skills and techniques required for low-hydrogen electrode welder certification, emphasizing hands-on experience. Students certify on 0.375 inch plate with backing, to AWS code standards.

<b>WELD A105</b>	<b>Pipe Welding</b>	<b>4 CR</b>	<b>WELD A122</b>	<b>Pipe Welding Vertical-Up SMAW</b>	<b>4 CR</b>
Contact Hours: 1 + 6 Prerequisites: WELD A103 and WELD A104. Registration Restrictions: Current certification of plate, open root, vertically upward, or pre-test during registration. May be stacked with: WELD A106. Special Fees. Develops skills and techniques for pipe welding, all positions, open root, uphill and downhill using ANSI Schedule 40 steel pipe sizes of 4-6 inch.			Contact Hours: 2 + 6 Prerequisites: WELD A121. Special Fees. Introduces vertical-up shielded metal arc welding (SMAW) techniques on carbon and alloy steel pipe using both EXX10 and EXX18 electrodes. Includes information on high strength alloy steel pipe specifications and weld/welder evaluation/qualification defined in ASME IX and ANSI/ASME B31.3.		
<b>WELD A106</b>	<b>Pipe Certification</b>	<b>4 CR</b>	<b>WELD A157</b>	<b>Technical Drawings for Welders</b>	<b>3 CR</b>
Contact Hours: 1 + 6 Prerequisites: WELD A105. May be stacked with: WELD A105. Special Fees. Develops skills required for pipe welding, all positions, open root, uphill and downhill using 6 inch Schedule 80 steel pipe, and certify on 6 inch Schedule 80 uphill procedure, ANSI B31 3 code standard.			Contact Hours: 3 + 0 Provides instruction o interpreting various types of drawings that are commonly used for construction projects that require welded assemblies.		
<b>WELD A108</b>	<b>Wire Welding</b>	<b>4 CR</b>	<b>WELD A161</b>	<b>Gas Metal Arc Welding (GMAW)</b>	<b>4 CR</b>
Contact Hours: 1 + 6 Special Fees. Develops skills and techniques in wire-feed (MIG) welding on mild steel, stainless steel and aluminum, with and without gas shielding. Students gain hands-on experience with all wire types on the current market.			Contact Hours: 2 + 6 Special Fees. Introduces gas metal arc welding techniques for joining a number of metals. Includes information on power supplies, wire feed equipment, shielding gases, filler metal selection, and electrical characteristics of the arc.		
<b>WELD A109</b>	<b>TIG Welding</b>	<b>4 CR</b>	<b>WELD A162</b>	<b>Flux Cored Welding (FCAW)</b>	<b>4 CR</b>
Contact Hours: 1 + 6 Prerequisites: WELD A101 or WELD A102. Special Fees. Develops skills and techniques for tungsten-inert gas (TIG) welding on aluminum, zinc alloys, copper, magnesium, mild steel and stainless steel. Emphasizes hands-on welding assignments.			Contact Hours: 2 + 6 Prerequisites: WELD A112 or WELD A161. Special Fees. Theory and practice of cored arc welding using self-shielded and dual shielded wire processes. Covers physics of welding transfer, electrical characteristics of power supplies, wire feeders, and filler metal selection. Presents welding in accordance with the American Welding Society structural welding code.		
<b>WELD A112</b>	<b>Shielded Metal Arc Welding (SMAW)</b>	<b>4 CR</b>	<b>WELD A174</b>	<b>Gas Tungsten Arc Welding (GTAW)</b>	<b>4 CR</b>
Contact Hours: 2 + 6 Special Fees. Introduces the welding of mild steels with covered electrodes. Includes welding safety, electrical welding equipment, electrode identification and selection, basic welding joint design, and welding practice on low carbon steel with mild steel electrodes.			Contact Hours: 2 + 6 Prerequisites: WELD A101 and WELD A112. Special Fees. Introduces gas tungsten arc welding for joining a number of metals. Includes information on power supplies, torches, inert gases, filler metal selection and electrical characteristics of the arc.		
<b>WELD A114</b>	<b>Welding of High Strength Steels</b>	<b>4 CR</b>	<b>WELD A190</b>	<b>Selected Topics in Welding Technology</b>	<b>1-4 CR</b>
Contact Hours: 2 + 6 Prerequisites: WELD A112. Special Fees. Introduces the welding of high strength steels with covered electrodes. Includes welding safety, low hydrogen electrodes selection process, high strength welding joint design, and welding practice on alloyed steels with low hydrogen and alloyed electrodes.			Contact Hours: 1-4 + 0-12 Prerequisites: WELD A101. Special Fees. Presents relevant topics and techniques in the field of welding and fabrication.		
<b>WELD A115</b>	<b>Basic Shielded Metal Arc Welding</b>	<b>2 CR</b>	<b>WELD A207</b>	<b>Industrial Welding Qualification</b>	<b>2 CR</b>
Contact Hours: 1 + 2 Offered only at Kodiak College. Beginning course designed to teach basics in welding steel, using the shielded metal arc welding (SMAW) process. TV-tape lessons and demonstrations consist of a series of intensive, highly structured skill building exercises in stick welding. Covers four basic joints in all four positions. Also includes brief exposure to cutting techniques with stick, shear, arc/air and oxyacetylene torch.			Contact Hours: 1 + 2 Registration Restrictions: Prequalification welding test. Grade Mode: Pass/No Pass. Provides opportunity for experienced welding students to study, practice and demonstrate mastery of one or more specific technical welding methods leading to national industrial welding qualification. Each student will be evaluated on an individual basis derived from the student's professional objectives.		
<b>WELD A117</b>	<b>Basic Pipefitting</b>	<b>4 CR</b>	<b>WELD A261</b>	<b>Ultrasonic Testing</b>	<b>4 CR</b>
Contact Hours: 3 + 2 Special Fees. Presents theory and basic calculations for the layout and assembly of piping offsets and pipe spool assemblies common to the oil and gas industry.			Contact Hours: 2 + 4 Prerequisites: MATH A105. Special Fees. Covers the principles of ultrasonic testing methods with zero and shear wave techniques. Examines inspection techniques in accordance with AWS D1.1, API 1104 and ASME codes. Prepares students for the level I, ASNT, SNT-TC-1A recommended practice examination.		
<b>WELD A118</b>	<b>Welding Fabrication and Manufacturing</b>	<b>4 CR</b>	<b>WELD A262</b>	<b>General Nondestructive Testing</b>	<b>3 CR</b>
Contact Hours: 1 + 6 Prerequisites: WELD A101. Special Fees. Provides relevant topics and skill enhancement in the area of welding and fabrication for manufactured products.			Contact Hours: 2 + 2 Special Fees. Presents nondestructive testing methods of dye penetrant, magnetic particle, and eddy current. Includes the applications, advantages, and limitations of these NDT methods. Prepares students for the Level I American Society for Nondestructive Testing, SNT-TC-1, a recommended practice examination.		
<b>WELD A121</b>	<b>Pipe Welding Vertical-SMAW</b>	<b>4 CR</b>	<b>WELD A263</b>	<b>Radiographic Testing Safety</b>	<b>2 CR</b>
Contact Hours: 2 + 6 Prerequisites: WELD A112. Special Fees. Introduces vertical-down shielded metal arc welding (SMAW) techniques on carbon steel pipe using EXX10 electrodes. Includes information on pipe material specifications, pipe fittings and assembly, welder qualification, and API Standard 1104 code requirements.			Contact Hours: 2 + 0 Prerequisites: MATH A105. Registration Restrictions: VE A301 Principles of Technology or similar science course work is recommended prior to taking this course. Special Fees. Presents the safety practices and USNRC regulations for industrial radiography in nondestructive examination. Prepares for both Radioactive Materials (RAM) and the X- ray category Industrial Radiography Radiation Safety Personnel (IRRSP) examination administered by The American Society for Nondestructive Testing (ASINT).		

## Course Descriptions

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**WELD A264 Radiographic Testing 3 CR**

Contact Hours: 2 + 3

Prerequisites: WELD A263 and WELD A112.

Special Fees.

Presents theory and application of industrial radiography and meets ASNT initial training hour requirements for level I and level 11 radiographer. Includes operation of equipment, film exposure and development, radiographic procedure specifications, interpretation of radiographs, and a brief review of radiation safety.

**WELD A281 Welding Inspection and Code Review 4 CR**

Contact Hours: 4 + 0

Prerequisites: WELD A112 and WELD A157.

Presents numerous welding inspection methods and a study of various welding codes and standards in preparation for the American Welding Society (AWS) Certified Welding Inspector (CWI) Examination.

**WELD A287 Welding Metallurgy Applications 5 CR**

Contact Hours: 3 + 4

Prerequisites: MATH A055 and WELD A112.

Special Fees.

Presents technical information in welding metallurgy. Includes laboratory practice in metallography, heat-treating, and mechanical properties testing.

## WS - Women's Studies

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*Offered through the College of Arts and Sciences*

*Social Sciences Building (SSB), Room 355, 786-4837*

*[www.uaa.alaska.edu/womensstudies](http://www.uaa.alaska.edu/womensstudies)*

**WS A200 Introduction to Women's and Gender Studies 3 CR**

Contact Hours: 3 + 0

Course Attributes: UAA GER Social Sciences Requirement.

Introduces students to the fundamental concepts and themes in the interdisciplinary study of women and gender. Course focuses on understanding institutions, social and political practices, and cultural representations that shape women's lives in both the developed and developing worlds as well as examining the role that gender plays in society.

**WS A355 Women in Politics 3 CR**

Contact Hours: 3 + 0

Prerequisites: PS A101 or PS A102 or WS A200.

Crosslisted with: PS A355.

Examines the roles of women in the political world from local, state, national and international perspectives. The nature of women's political roles will be studied from both historical and contemporary perspectives.

**WS A400 Feminist Theory 3 CR**

Contact Hours: 3 + 0

Prerequisites: WS A200.

Interdisciplinary examination of historical and contemporary feminist and gender theories.

**WS A401 Seminar in Women's Studies 3 CR**

Contact Hours: 3 + 0

Prerequisites: WS A200.

Special Note: May be repeated once with change of topic.

Discusses issues related to women's studies. Content varies every semester.

**WS A495 Internship in Women's Studies 3 CR**

Contact Hours: 3 + 0

Prerequisites: WS A200.

Special Note: Internships vary; may be repeated once for credit with a different internship.

An opportunity for students to apply the subject matter of Women's Studies to the practical life of the community.