The University of Alaska, Anchorage recognizes its responsibility through the Affirmative Action Plan to provide education and employment opportunities for qualified individuals.

It is the objective of the Affirmative Action Office to ensure positive actions to overcome the effects of systemic institutional forms of exclusion and illegal discrimination. Protective federal and state laws, orders and decisions will be implemented by this office to ensure that students and prospective students are afforded educational services, including but not limited to admissions decisions, financial aid, access to academic programs, health and counseling services without regard to race, color, religion, national origin, sex, age, physical disability, or veteran status except when necessary and permitted by law.

Any student or prospective student who feels that he or she is being discriminated against for any of the above named reasons has the right to contact the appropriate supervisory or academic official for informal resolution. The student or prospective student may also contact the UAA Affirmative Action Office in Room 202 of the Administration Building; the University of Alaska Statewide EEO/AAO Office in Fairbanks; or the U.S. Department of Labor, Office of Federal Contract Compliance Programs, Federal Building, Anchorage, Alaska, for advisement on complaints of discrimination and/or sexual harassment.
FEES, CHARGES, TUITION

(Page 43)
Fees, Charges, Tuition

SUMMARY OF TUITION

(Effective Fall 1986)

Resident

Resident students enrolling in 12 or fewer UNDERGRADUATE credits: $40 per credit.
Resident students enrolling in 9 or fewer GRADUATE credits: $75 per credit.
Resident students enrolling in 12 or more UNDERGRADUATE credits: the basic fee, $480
Resident students enrolling in 9 or more GRADUATE credits: the basic fee, $675

Non-Resident

Non-resident students enrolling in 12 or fewer UNDERGRADUATE credits: $105 per credit
Non-resident students enrolling in 9 or fewer GRADUATE credits: $150 per credit
Non-resident students enrolling in 12 or more UNDERGRADUATE credits: the basic fee, $1,260
Non-resident students enrolling in 9 or more GRADUATE credits: the basic fee, $1,350

<table>
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<td>1155</td>
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<td>1260</td>
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NEW OR CHANGED FEES
(Effective September 2, 1986)

*Student Activity Fees (maximum, per semester)............ $38
Late Registration (flat fee).................................. 25
Graduate Extended Registration............................... 75

Transcripts:
  First copy, per request................................. 4
  Additional copies, per request............................ 2
Change of Major Fee........................................ 5
Graduation Fee............................................... 10
Diploma Fee................................................ 10

* Effective with Fall 1986 Early and Regular Registration

ACADEMIC REGULATIONS

(Page 59)
Dismissal

Academic dismissal from UAA does not occur without warning; an accumulation of low grades earned precedes dismissal. Academic dismissal will result if a student: 1) begins a semester on probationary admission and fails to raise his cumulative grade point average to at least 2.0; or 2) begins a semester on academic probation and fails to earn a semester grade point average of at least 2.0, or 3) begins a semester on continuing probation and, regardless of the semester grade point average, fails to raise his cumulative grade point average to at least 2.0 at the end of the semester, or 4) is classified as a reinstated student and fails to earn a semester grade point average of at least 2.0 or higher each semester.

DEGREE REQUIREMENTS

(Page 65)
Interdisciplinary Degree Programs

INTERDISCIPLINARY GRADUATE DEGREE PROGRAM

A student may develop a proposal for graduate study in inter­disciplinary studies. The proposed curriculum must differ significantly from established degree programs and must not be a substitute for a regular program. All General University Requirements for the appropriate degree must be met. One-half of the required credits must be taken in courses which are part of an approved Master's Degree
program. The proposal must nominate a graduate advisor and two or more faculty members to serve as a preliminary program committee. In the case of an interdisciplinary degree involving more than one school or college, the committee must include a faculty member from each discipline. The degree title and program content will be chosen by the student with the consent of the preliminary program committee.

The final proposal shall be presented for approval to each relevant academic dean. In the case of an interdisciplinary degree involving more than one school or college, it shall be presented to each relevant academic dean with final approval from the Vice Chancellor for Academic Affairs, or official designee.

To receive a degree in interdisciplinary studies from the University of Alaska, Anchorage a student must satisfy General University Requirements and Program Requirements.

PROCEDURE:

1. The student develops a proposal that identifies the degree (M.A. or M.S.), title of studies, and proposed Graduate Study Plan, and meets with the Dean to discuss graduate study requirements and to verify the proposal as meeting general university requirements for graduate studies. The student organizes a preliminary program committee of at least three faculty members from the relevant academic disciplines, secures agreement of one of them to act as graduate advisor, and presents the proposal for committee approval. (Refer to Graduate Admission and Degree Requirements in the Graduate Studies Bulletin or UAA Catalog).

2. If the preliminary program committee supports the proposal it is forwarded to the appropriate dean for approval. The dean issues a letter of notification of the decision regarding the proposal to the student with a copy to the faculty members and Director of Admissions and Financial Aid. Proposals for an interdisciplinary graduate degree involving more than one school or college are forwarded by the appropriate Dean to the Vice Chancellor for Academic Affairs, who notifies the student of the decision regarding the proposal. A copy of the notification is forwarded to the faculty members, dean, and Director of Admissions and Financial Aid.

3. Once the proposal is accepted, the Director of Admissions and Financial Aid forwards the student's creden-
tials for admission to graduate studies to the Dean for review. (Refer to the Graduate Studies Bulletin or UAA Catalog for Acceptance to Graduate Study.)

4. The student works with the graduate advisor appointed by the Dean at the time of acceptance to graduate study.

5. The Dean of the School or College offering the interdisciplinary degree appoints a graduate study committee and chairperson when the student applies for advancement to candidacy. (Refer to Advancement to Candidacy for a Master's Degree and Graduate Study Committees in the Graduate Studies Bulletin or UAA Catalog.) When a student applies for advancement to candidacy for an interdisciplinary graduate degree involving more than one school or college, the Vice Chancellor for Academic Affairs, or official designee, appoints the student's Graduate Study Committee and Chairperson.

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Second Baccalaureate Degree

A student wishing to earn a second baccalaureate degree from the University of Alaska, Anchorage (regardless of where the first degree was earned) must complete a minimum of 24 credits beyond the first baccalaureate degree. All General University Requirements and Major Program Requirements must be met for the second degree.
# COLLEGE OF ARTS AND SCIENCES

## THE COLLEGE OF ARTS AND SCIENCES DEGREE REQUIREMENTS

### BACHELOR OF ARTS

**Human Sciences**
Any five of the following courses not in the major: Anth 101 or 202, Econ 201, 202, JPC 101, Just 110, PS 101, 102, Psy 111, Soc 101, SWK 106..........................15

### BACHELOR OF SCIENCE

**Human Sciences**
Any three of the following courses not in the major: Anth 101 or 202, Econ 201, 202, JPC 101, Just 110, PS 101, 102, Psy 111, Soc 101, SWK 106..........................15

### BACHELOR OF SOCIAL WORK (Total credits: 49)

**Written Communication Skills**

<table>
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<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Engl 111</td>
<td>3</td>
</tr>
<tr>
<td>Engl 211 or 213</td>
<td>3</td>
</tr>
</tbody>
</table>

BSW requires an additional 3 credits of upper division English Composition selected from Engl 311, 312, 414............3

### BACHELOR OF SOCIAL WORK

**Natural Science**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biol 107 &amp; 108 or 111</td>
<td>4</td>
</tr>
</tbody>
</table>

Choose one from the following:
Astr 103, 104, Biol 112, 113 (Biol 113 should not be chosen if Biol 111 has been completed), 114, 215, 239, 252, 271, Chem 105, 106, 120, 121, Geol 111, 112, Phys 103, 104, 211, 212

### BACHELOR OF SCIENCE - BIOLOGICAL SCIENCES

2. Complete a curriculum approved by the Chairman of the Biology Program, including the following minimum requirements. (Unless noted otherwise, the program requirements may also be used to satisfy the General Education Degree Requirements):
a. Biol 107 and 108 or equivalent, Biol 491, and at least 36 additional credits in Biology, at least 18 of which must be upper-division credits and must include one course each in Botany, Ecology, Genetics, Microbiology, Physiology, and Zoology. ................................................................. 40

b. Chem 105 and 106, and at least 8 credits in Organic Chemistry, including laboratory ................................................................. 16

c. delete

(PAGE 88)
BACHELOR OF SCIENCE - CHEMISTRY

2. Complete the following major specialty requirements:

<table>
<thead>
<tr>
<th>Credits</th>
<th>Course Description</th>
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<tr>
<td>8</td>
<td>Chem 105-106 General Chemistry</td>
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<tr>
<td>5</td>
<td>Chem 212 Quantitative Analysis</td>
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<td>8</td>
<td>Chem 321-322 Organic Chemistry</td>
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<tr>
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<td>Chem 331-332 Physical Chemistry</td>
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<td>Chem 402 Adv. Inorganic Chemistry</td>
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<td>4</td>
<td>Chem 434 Instrumental Methods</td>
</tr>
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<td>Chem 491 Seminar</td>
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<tr>
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<td>Chem 498 Individual Research</td>
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<tr>
<td>12</td>
<td>Math 200-201-202 Calculus</td>
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<td>3</td>
<td>Math 302 Ordinary Differential Equations</td>
</tr>
<tr>
<td>8</td>
<td>Phys 211-212 General Physics</td>
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</table>

(Page 96)
MASTER OF ARTS - ENGLISH

DEGREE REQUIREMENTS

1. c. complete at least 30 credits in approved English courses;
Core Courses (Required of All Majors); 
JPC 101-Introduction to Mass Communication 3
JPC 111-Understanding Aural and Visual 
  Communication 3
JPC 201-Newswriting 3
JPC 203-Introductory Photography 3
JPC 326-Principles of Advertising 3
JPC 413-Communication Law 3
JPC 435-Communication Research 3
Total Required 21

Medical Technology

Certification as a registered Medical Technologist requires successful completion of a certification examination administered by the American Society of Clinical Pathologists. Although there are several ways to become eligible to take this examination, all candidates for certification must hold a baccalaureate degree that includes specific course work in Biology and Chemistry. The Biology and Chemistry programs at UAA provide all of the academic requirements for certification. Certification also requires either an internship at an approved hospital school or several combinations of specialized training and up to five years of actual work experience.

There is no approved school of Medical Technology in Alaska and the University of Alaska, Anchorage is not affiliated with any hospital school in other states. Therefore, only students who have completed, or are enrolled in, an accredited Medical Laboratory Technician program may earn a Bachelor of Science Degree in Medical Technology at the University of Alaska, Anchorage. Qualified applicants will be admitted as majors in the Medical Technology Equivalency Program. Graduates of this program are still required to obtain three years of relevant work experience before taking the certification examination.

All other students interested in a career in Medical Technology must declare a major in Biology, Chemistry, or Natural Sciences, as explained below.
MEDICAL TECHNOLOGY EQUIVALENCY PROGRAM
(Open only to certified Medical Laboratory Technicians—MLT)

Admission to the Program:

Application is made through the Office of Admissions. Students must submit official transcripts of all college work and either proof (or waiver) of satisfactory completion:

1. Certification as a Medical Laboratory Technician (MLT), and,
2. One year work experience as a certified MLT.

Graduation from the Program:

1. Complete the required CLEP examinations with a mean score equal to or exceeding the scaled score for "C" students and apply for credit by examination in Biol 401: Medical Technology. These credits, when approved, are accepted as upper-division, resident credit.
2. At least 48 upper-division credits are required to graduate.
3. A total of 120 credits is required for the degree.
4. Complete or obtain credit (by transfer) for:

   All UAA and CAS baccalaureate requirements........58*
   Biol 401: Medical Technology (by Examination)....30
   Biology Upper-Division Credits, including
   Biol 340.........................................................16
   Chemistry Upper-Division Credits, including
   Chem 321, 322..................................................16
   Approved electives, to a minimum total of.........120

* Up to 72 credits (other than Medical Technology credits) may be transferred from a community or junior college.

OTHER MEDICAL TECHNOLOGY OPTIONS

Students who do not qualify for admission into the Medical Technology Equivalency Program should apply for admission with a major in Biological Sciences, Chemistry or Natural Sciences. They may select one of three options:
"2+2": Complete two years of approved course work at the University of Alaska, Anchorage, then transfer and graduate from an approved School of Medical Technology at another university.

"4+1 or 2": Complete four years of approved course work, earning a baccalaureate degree at the University of Alaska, Anchorage, then complete an approved program at a School of Medical Technology as a post-baccalaureate certificate candidate (one to two years).

"4+5": Complete a baccalaureate degree at the University of Alaska, Anchorage, then obtain five years (within seven years of completing the degree) of approved work experience under the direction of a certified clinical pathologist.

Students selecting the "2+2" option should, with help from their advisor, choose courses REQUIRED FOR ADMISSION INTO AN APPROVED SCHOOL OF MEDICAL TECHNOLOGY AT ANOTHER UNIVERSITY.

ALL OTHER STUDENTS must complete the degree requirements of their declared major (Biology, Chemistry, or Natural Sciences). Certification requires that course work MUST include the following MINIMUM discipline requirements:

Biology (including Biol 340) ...................... 16
Chemistry (including Chem 321 or 441) ............. 16
Mathematics (one semester) ......................... 3-4

THIS PROGRAM IS ADMINISTERED BY THE DEPARTMENT OF BIOLOGICAL SCIENCES.
Course Descriptions

ART 102
INTRODUCTION TO STUDIO ARTS (2+3)
Introduction to practices in two dimensional design, drawing, and painting directed through a series of projects exploring composition, color and the creative interpretation of subject.

ART 261
HISTORY OF WORLD ART (3+0)
Origins of art and its development through the Renaissance.

ART 262
HISTORY OF WORLD ART (3+0)
The development of art from the post-Renaissance periods to the present.

ART 362
CONTEMPORARY ART (3+0)
Analysis of the work and thought of major artists working in painting and sculpture from the 1960s to the present. The relationship of visual art to social and cultural trends will be examined.
Prerequisite: ART 262 or permission of instructor.

ART 423/JPC 405
ADVERTISING AND PUBLIC RELATIONS PHOTOGRAPHY (2+3)
Introduction to advertising and public relations photography. Emphasis will be placed on lighting for form, texture and separation. Advertising, industrial, and public relations photography will be explored.
Prerequisite: ART 324/JPC 303 or permission of instructor. May be repeated once for credit.

ART 461
ADVANCED DESIGN (2+3)
An intensive study of the concepts and techniques utilized by designers. Through a series of design problems dealing with advanced techniques of design presentation and visual communication, the student will explore form and content relationships. This course will emphasize perceptual and cognitive processes and introduce students to the technologies of model making, studio and copy photography, reproduction processes, typography and preparation of artwork.
Prerequisites: ART 161 and ART 163
BIOL 241  
HEALTH SCIENCE BACTERIOLOGY (3+0)  
Concurrent with the lecture section of BIOL 240. Recommended for students who have previously received credit for a Bacteriology course and who need to update their understanding of Health Science related Bacteriology. Not open to students who have completed BIOL 240 or BIOL 340 during the previous five years.

BIOL 252  
PRINCIPLES OF GENETICS (3+3)  
Principles of inheritance in prokaryotes and eukaryotes, and physiochemical properties of genetic systems. (Laboratory is included.)  
Prerequisites: Biol 107 and 108 and Math 107.

ENGL 485/ED 406  
METHODS OF TEACHING ENGLISH FOR THE HIGH SCHOOL (3+0)  
A study to assist future English teachers to determine objectives and to prepare plans to implement these objectives in the teaching of language, composition and literature. This course is to be taken concurrently with ED 400.  
Prerequisites: Admission to teacher certification, ED 313 and ED 332

ENGL 688/ED 664  
WRITING & LEARNING: ANCHORAGE WRITING PROJECT ADVANCED INSTITUTE (1-3+0)  
Advanced study teaching techniques introduced in Summer Institute. Students will be requested to participate in preliminary and post-institute meetings.  
Prerequisites: 3 credits of Engl 686 or ED 663.

HUM 111  
THE ASCENT OF MAN (3+0)  
Concentrates on the major steps in both the biological and cultural evolution of humankind.

JPC 405/ART 423  
ADVERTISING AND PUBLIC RELATIONS PHOTOGRAPHY (2+3)  
Introduction to advertising and public relations photography. Emphasis will be placed on lighting for, texture and separation. Advertising, industrial, and public relations photography will be explored. Prerequisites: JPC 303/ART 324 or permission of instructor. May be repeated once for credit.

JPC 432/BA 432/PS 432  
RESEARCH METHODS (3+0)  
JPC course deleted. See BA or PS 432.
JPC 435  
COMMUNICATIN RESEARCH (3+0)  
Introduction to research in mass communication, including historical development and impact, research design, data collection and analysis. Projects will provide practice in using research in such areas as precision journalism, media management, public relations planning and evaluation, and advertising campaigns.  
Prerequisite: AS 300

MATH 321  
ANALYSIS OF SEVERAL VARIABLES (4+0)  
Vector calculus, exterior calculus, optimization techniques, integration with application. Emphasis will be on the use of linear and multilinear algebra techniques to generalize the basic methods of calculus to several independent and dependent variables. Prerequisites: MATH 202, MATH 314.

MUS 161  
PRIVATE LESSONS (.5+2-1+4)  
Private music instruction in Brass, Guitar, Harpsichord, Organ, Percussion, Piano, Strings, Voice, and Woodwinds. May be repeated for credit by non-music majors or as preparatory division for music majors and minors. Performance majors enroll for 2 credits. Prerequisite: Permission of instructor.

PS 432/BA 432/JPC 432  
RESEARCH METHODS (3+0)  
Course no longer cross-referenced with JPC.

PSY 333  
COGNITIVE PSYCHOLOGY (3+0)  
A survey of the area of cognitive psychology. Memory, verbal learning, concept learning, and imagery are discussed. Prerequisites: PSY 111 and PSY 261.

PSY 366  
PERCEPTION (3+3)  
Current theories and phenomena in how we process the world around us. Much of the material will be presented via demonstration and in weekly laboratory sessions. The implications of the human tendency to "misunderstand" situations will be considered. Prerequisites: PSY 111 and PSY 261.
PSY 420  
RESEARCH METHODS IN EXPERIMENTAL PSYCHOLOGY (3+0)  
A survey of the essential elements of research design, from  
formulating an experiment, 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 the research reports  
they read. Prerequisites: PSY 111 and PSY 261, and two  
other psychology courses; one statistics course as a prereq­  
usite or corequisite is required; or permission of the  
instructor.

PSY 641  
APPLICATIONS OF COMMUNITY PSYCHOLOGY (2+3)  
Practical implementation of community self-management  
packages, with the students acting as group leaders in their  
residential communities. Exploration of system models of  
community change and self-support. The students will plan  
and prepare to carry out future training programs in the  
community.  
Prerequisites: PSY 372 and PSY 623 as prerequisite or  
corequisite.

PSY 670  
COUNSELING INTERNSHIPS (1+3-15)  
Supervised counseling experience with actual clients in a  
variety of settings. Open only to students admitted to  
candidacy. Endorsement of instructor and appropriate agency  
supervisor required.  
Prerequisite: Candidacy and permission of instructor.

SPAN 101  
ELEMENTARY SPANISH I (5+0)  
Foundations of Spanish: the alphabet, proper pronunciation,  
basic vocabulary and sentence structure. The grammar covers  
articles, genders of nouns, adjectives, pronouns, and the  
regular/irregular verb patterns as far as the preterite  
tenses. Emphasis is placed on speaking and understanding  
through frequent classroom practice and lab exercises.

SPAN 102  
ELEMENTARY SPANISH II (5+0)  
Foundations of oral and written Spanish: a continuation of  
the basics of Spanish vocabulary and grammar. The  
imperfect, future and conditional tenses, including their  
compound forms, will be studied as well as the imperative  
and other verbal patterns. The present and past subjunctive  
case will also be given special attention.  
Prerequisite: SPAN 101 or permission of instructor.
SPAN 201  
INTERMEDIATE SPANISH I (3+0)  
A review of the fundamental structures of Spanish grammar and vocabulary. Students will become familiar with the normal sound and usage of the language by taking dictation, reading and writing short compositions. The essentials of grammar will be reviewed and some special points considered. Conversational fluency will be enhanced through the study of thematic vocabularies and idiomatic expressions.  
Prerequisite: SPAN 102 or permission of instructor.

SPAN 202  
INTERMEDIATE SPANISH II (3+0)  
A continuation of Spanish 201 which will include review of the grammar and the study of new vocabulary and expressions. The course will emphasize reading and writing of short compositions or essays. Articles from magazines and newspapers on issues of current interest will be analyzed and discussed to expand ability of the student to read, write and speak fluently.  
Prerequisite: SPAN 201 or permission of instructor.

SWK 361-B  
SOCIAL WORK PRACTICE I (0+9)  
Beginning social work practice in which concepts and knowledge acquired in SWK 361-A are applied to client-centered problem solving. The student completes 8 hours of field work each week in an approved agency under the supervision of a field instructor appointed by the University. A weekly field work seminar is also required.  
Prerequisite: Permission of instructor.

SWK 444  
HEALTH CARE AND SOCIAL WORK SYSTEMS (3+0)  
Exploration of the health needs and requests of client systems in relation to social work practice, health care policies, systems of service delivery and ethnic/cultural diversity. The impact of health, illness and disease on client systems will be addressed along with the inter-relationship of mind and body on behavior, growth, achievement and change.

SWK 470  
SOCIAL WORK WITH THE AGING AND ELDERLY (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. Prerequisite: SOC 310 or permission of instructor.
THR 490  
SELECTED TOPICS IN PERFORMANCE (3+0)  
3 Credits  
Current topics in theatrical performance resulting from special demands of the theatre season or special faculty expertise.

THR 495  
SELECTED TOPICS IN TECHNICAL THEATRE (3+0)  
3 Credits  
Current topics in technical theatre theory and practice resulting from the demands of the theatre season or special faculty expertise.
SCHOOL OF JUSTICE

Course Descriptions

JUST 215 3 Credits
PARALEGAL STUDIES (3+0)
A foundation course for the legal studies area. Explores roles, responsibilities, and ethics of paralegal activities and the relationship of paralegals to lawyers. Areas of paralegal responsibilities studies include statute and regulation formats, litigation, insurance, probate and real estate. Interviewing, investigation, writing and the application of social science techniques to paralegal problems will be covered.

JUST 356 4 Credits
LEGAL RESEARCH AND ANALYSIS (3+3)
Law library research and practice in use of computers in legal research. Fact gathering, interviewing, written and oral advocacy and issues of privacy, confidentiality, and freedom of information are discussed.
Prerequisites: ENGL 211 or equivalent.
### MINORS IN EDUCATION

#### 3. Non-Certification Minor in Special Education (17-19):

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<td>ED 460</td>
<td>Exceptional Learner</td>
<td>3</td>
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<tr>
<td>ED 482</td>
<td>Mainstreaming</td>
<td>3</td>
</tr>
<tr>
<td>ED 484</td>
<td>Language Development/Disorders</td>
<td>3</td>
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<tr>
<td>ED 485</td>
<td>Rural Special Education</td>
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</tr>
<tr>
<td>ED 486</td>
<td>Organization &amp; Management: Special Education</td>
<td>4</td>
</tr>
<tr>
<td>ED 487</td>
<td>Field Experience/Special Education</td>
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</table>

#### (Page 148)

**COUNSELING AND GUIDANCE EMPHASIS (34-37 Credits)**

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</thead>
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<td>ED 460</td>
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<td>3</td>
</tr>
<tr>
<td>Psy 265</td>
<td>Psychology of Abnormal Behavior</td>
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</tbody>
</table>

**Prerequisites:**

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<tbody>
<tr>
<td>ED 426</td>
<td>Principles and Practices of Guidance</td>
<td>3</td>
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<tr>
<td>ED 480</td>
<td>Education of Culturally Different Youth</td>
<td>3</td>
</tr>
<tr>
<td>ED 600</td>
<td>Orientation to Counseling/Guidance</td>
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</tr>
<tr>
<td>ED 612</td>
<td>Human Relations in Education</td>
<td>3</td>
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<td>ED 623</td>
<td>Counseling Skills</td>
<td>3</td>
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<td>ED 624</td>
<td>Group Counseling</td>
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<td>ED 627</td>
<td>Education Research</td>
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<tr>
<td>ED 631</td>
<td>Advanced Educational Psychology</td>
<td>3</td>
</tr>
<tr>
<td>ED 632</td>
<td>Career Information in the Public Schools</td>
<td>3</td>
</tr>
<tr>
<td>ED 634</td>
<td>Counseling Practicum I</td>
<td>3</td>
</tr>
<tr>
<td>ED 636</td>
<td>Counseling Practicum II</td>
<td>3</td>
</tr>
<tr>
<td>ED 698</td>
<td>Individual Research</td>
<td>3-6</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ED 699</td>
<td>Thesis</td>
<td>3-6</td>
</tr>
</tbody>
</table>
SPECIAL EDUCATION EMPHASIS ** (36 Credits Minimum)

Required Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ED 460</td>
<td>Exceptional Learner</td>
<td>3</td>
</tr>
<tr>
<td>ED 485</td>
<td>Rural Special Education</td>
<td>3</td>
</tr>
<tr>
<td>ED 627</td>
<td>Education Research</td>
<td>3</td>
</tr>
<tr>
<td>ED 676</td>
<td>Theories of Behavior Disorders</td>
<td>3</td>
</tr>
<tr>
<td>ED 680</td>
<td>Theories of Learning Disabilities</td>
<td>3</td>
</tr>
<tr>
<td>ED 688</td>
<td>Collaborative Consultation</td>
<td>3</td>
</tr>
<tr>
<td>ED 698</td>
<td>Individual Research</td>
<td>3-6</td>
</tr>
<tr>
<td>OR</td>
<td>ED 699 Thesis</td>
<td>3-6</td>
</tr>
<tr>
<td></td>
<td>Electives by advisement</td>
<td>12-15</td>
</tr>
</tbody>
</table>

** Certification requirements may be completed in conjunction with the Master of Education Degree or as a separate program. For certification requirements, consult with the School of Education.

Course Descriptions

ED 212  
HUMAN DEVELOPMENT AND LEARNING (3+0)  
Synthesis of the interrelated principles of human growth, development, adjustment and learning. Designed primarily for students preparing for a career in teaching but is also open to parents, counselors, community workers, and others interested in human development and learning.

ED 313  
EDUCATIONAL PSYCHOLOGY (3+0)  
Application of psychological principles of teaching and learning in the public school classroom. Educational Psychology is the study of learners, learning, and teaching. The principal focus is on the processes by which information, skills, values, and attitudes are transmitted from teachers to students in the classroom, and in the application of principles of psychology to the practice of instruction. Covers the psychology of learners at different ages and psychological principles of motivation and learning and teaches specific procedures to increase teacher effectiveness in the classroom.

Prerequisite: ED 212 or concurrent enrollment.
ED 332  
TESTS AND MEASUREMENTS (3+0)  
Theory and practice of educational evaluation. Emphasis is on testing and evaluation techniques commonly used and most appropriate for classroom teachers. Includes practice in constructing tests and test questions. Teacher-made and standardized tests are reviewed. Basic introductory statistical methods which apply to testing will be covered. Prerequisite: ED 212

ED 406  
METHODS OF TEACHING ENGLISH FOR THE HIGH SCHOOL (3+0)  
A study to assist future English teachers to determine objectives and to prepare plans to implement these objectives in the teaching of language, composition and literature. This course is to be taken concurrently with ED 400. Prerequisites: Admission to teacher certification, ED 313 and ED 332.

ED 420  
DEVELOPING COMMUNICATION COMPETENCIES IN ELEMENTARY SCHOOL (12+0)  
Delete

ED 421  
DEVELOPING READING IN ELEMENTARY SCHOOL (6+0)  
A comprehensive study of the reading process and the development of reading proficiency in the elementary school. Includes focus in the foundations of reading and the materials and methodologies used in elementary school programs. Field work required. Concurrent enrollment with ED 422 required. Fall and Spring. Prerequisites: LING 101, ED 201, ED 332

ED 422  
TEACHING LANGUAGE ARTS AND LITERATURE (6+0)  
A critical study of the theoretical and practical aspects of teaching, listening, speaking, and writing through children's literature. Emphasis is directed toward the integration of language instruction in the elementary school. Field work. Concurrent enrollment with ED 421 required. Fall and Spring. Prerequisites: LING 101, ED 201, ED 313, ED 332
ED 601  
STYLES: TEACHING AND LEARNING (1+0)  
The four Jungian personality types related to teaching and learning. This course presents basic aspects of the Jungian styles of personality and communication related to the perception, gathering, processing, and presentation of information. Participants will identify their own preferred styles, learn effective uses of their style, and learn to flex into the styles of others for more effective communication. Lesson design and teaching strategies for each of the four styles will be developed. Prerequisite: Graduate standing or permission of instructor.

ED 664/ENGL 688  
WRITING & LEARNING: ANCHORAGE WRITING PROJECT ADVANCED INSTITUTE (1-3+0)  
Advanced study teaching techniques introduced in Summer Institute. Students will be requested to participate in preliminary and post-institute meetings. Prerequisites: 3 credits of ENGL 686 or ED 663.

ED 689  
INDIVIDUAL AND CLASSROOM MANAGEMENT TECHNIQUES (3+0)  
Delete

PE 200  
VARSITY SPORTS (0+3)  
Student-athlete's participation in a recognized intercollegiate varsity sport. Registration required during semester of competition. Restricted to one credit per academic year. Includes the following: Varsity Cheerleading; Fall. Varsity Gymnastics; Spring. Varsity Hockey; Spring. Varsity Rifle; Fall. Varsity Cross Country Running; Fall. Varsity Skiing; Spring. Varsity Swimming; Fall. Varsity Volleyball; Fall. Varsity Basketball-Women; Fall. Varsity Basketball-Men; Fall. Prerequisite: Permission of coach.

PE 311  
HISTORY AND PRINCIPLES OF PHYSICAL EDUCATION (3+0)  
Delete
3. Complete the major requirements:

**FIRST YEAR**

**Fall Semester**
- Engl 111 Methods of Written Communication... 3
- Math 200 Calculus............................... 4
- ES 103 Engineering Graphics.................. 3
- ES 111 Engineering Science.................... 3
- Chem 105 General Chemistry.................... 4

**Spring Semester**
- Spch 111 Fundamentals of Oral Communication.. 3
- Math 201 Calculus............................... 4
- CE 112 Elementary Surveying for Civil Engineering.................. 3
- Chem 106 General Chemistry.................... 4
- ES 201 Computer Techniques.................... 3

**SECOND YEAR**

**Fall Semester**
- Math 202 Calculus............................... 4
- Phys 211 General Physics....................... 4
- ES 209 Engineering Statistics.................. 3
- Engl 211 Intermediate Exposition with Modes of Literature.................. 3
- Social Science/Humanities/Arts Area........... 3

**Spring Semester**
- Math 302 Differential Equations................ 3
- Phys 212 General Physics....................... 4
- ES 210 Engineering Dynamics.................... 3
- ES 331 Mechanics of Materials................ 4
- Social Science/Humanities/Arts Area........... 3

**THIRD YEAR**

**Fall Semester**
- ES 301 Engineering Analysis.................... 3
- ES 309 Elements of Electrical Engineering.... 3
- CE 334 Properties of Materials................ 2
- ES 341 Fluid Mechanics.......................... 4
- Social Science/Humanities/Arts Area........... 3
<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ES 346 Basic Thermodynamics</td>
<td>3</td>
</tr>
<tr>
<td>CE 344 Water Resources Engineering</td>
<td>3</td>
</tr>
<tr>
<td>CE 402 Transportation Engineering</td>
<td>3</td>
</tr>
<tr>
<td>CE 431 Structural Analysis</td>
<td>4</td>
</tr>
<tr>
<td>Social Science/Humanities/Arts Area</td>
<td>3</td>
</tr>
<tr>
<td>CE 344 Water Resources Engineering</td>
<td>3</td>
</tr>
<tr>
<td>CE 402 Transportation Engineering</td>
<td>3</td>
</tr>
<tr>
<td>CE 431 Structural Analysis</td>
<td>4</td>
</tr>
<tr>
<td>Social Science/Humanities/Arts Area</td>
<td>3</td>
</tr>
<tr>
<td>CE 415 Advanced Surveying</td>
<td>3</td>
</tr>
<tr>
<td>CE 432 Steel Design</td>
<td>3</td>
</tr>
<tr>
<td>CE 441 Sanitary Engineering</td>
<td>3</td>
</tr>
<tr>
<td>CE 435 Soil Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>Social Science/Humanities/Arts Area</td>
<td>3</td>
</tr>
<tr>
<td>Social Science/Humanities/Arts Area</td>
<td>3</td>
</tr>
<tr>
<td>CE 415 Advanced Surveying</td>
<td>3</td>
</tr>
<tr>
<td>CE 432 Steel Design</td>
<td>3</td>
</tr>
<tr>
<td>CE 441 Sanitary Engineering</td>
<td>3</td>
</tr>
<tr>
<td>CE 435 Soil Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>CE 431 Structural Analysis</td>
<td>4</td>
</tr>
<tr>
<td>Social Science/Humanities/Arts Area</td>
<td>3</td>
</tr>
<tr>
<td>Science Elective</td>
<td>3</td>
</tr>
<tr>
<td>ESM 450 Economic Analysis and Operations</td>
<td>3</td>
</tr>
<tr>
<td>CE 422 Foundation Engineering</td>
<td>3</td>
</tr>
<tr>
<td>CE 433 Concrete Design</td>
<td>3</td>
</tr>
<tr>
<td>CE 438 Design of Engineering Systems</td>
<td>3</td>
</tr>
<tr>
<td>Technical Elective</td>
<td>3</td>
</tr>
</tbody>
</table>

Of the 15 Social Science/Humanities/Arts Area credits, at least 6 must be above the 100 level or advanced courses in 100 level sequence, and at least 3 credits must be from the Arts area.

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ENGINEERING MANAGEMENT
SCIENCE MANAGEMENT

MASTER OF SCIENCE
ENGINEERING MANAGEMENT
SCIENCE MANAGEMENT

3. Complete the area requirements using the following courses: (33 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESM 601 Engineers in Organizations</td>
<td>3</td>
</tr>
<tr>
<td>ESM 602 Marketing for ESM</td>
<td>3</td>
</tr>
<tr>
<td>ESM 605 Engineering Economy</td>
<td>3</td>
</tr>
<tr>
<td>ESM 608 Legal Environment for Engr. Management</td>
<td>3</td>
</tr>
<tr>
<td>ESM 609 Project Management</td>
<td>3</td>
</tr>
<tr>
<td>ESM 611 Basic &amp; Cost Accounting for ESM.</td>
<td>3</td>
</tr>
<tr>
<td>ESM 612 Fiscal Decisions in ESM.</td>
<td>3</td>
</tr>
<tr>
<td>ESM 613 Human Factors in ESM</td>
<td>3</td>
</tr>
<tr>
<td>ESM 620 Statistics for ESM</td>
<td>3</td>
</tr>
<tr>
<td>ESM 621 Operations Research</td>
<td>3</td>
</tr>
<tr>
<td>ESM 684 ESM Project</td>
<td>3</td>
</tr>
</tbody>
</table>
a. Management area: 9 credits minimum including ESM 601; either ESM 609 or ESM 613; and a third course chosen from ESM 602, ESM 608, ESM 609, and ESM 613.

b. Fiscal area: 6 credits minimum chosen from ESM 605, ESM 611, and ESM 612. If a student has had a course in engineering economy, then ESM 611 and ESM 612 may be taken, otherwise ESM 605 and ESM 611 are required.

c. Quantitative area: 6 credits minimum including either ESM 620 or ESM 621; and a second course chosen from ESM 620, ESM 621, BA 619 (Computer Simulation of Systems), and BA 624 (Human Resources Administration).

d. Project: 3 credits of ESM 684

e. *Electives: 9 credits in the student's technical specialty and/or additional courses in a, b, or c.

*Electives must have the approval of the department and may include advanced courses in computer science but not courses in basic FORTRAN.

Substitutions for one or more of the courses listed above are permitted if similar courses are included in the student's previous academic background. No more than nine semester credits of appropriate graduate-level course work completed semester at other institutions with a grade of "A" or "B" may be transferred and applied toward the total 33 credits of required and elective courses. Both substitutions and transfer of credit must be approved by the department.

4. In addition to completing the 33 credits indicated above, a candidate must demonstrate competence in computer programming by passing a programming course or a qualifying examination.

5. No course included in the 33 credits of a student's program may have counted toward another degree.

6. A student may not repeat a course that is part of his program, if he has received a "C" or better in that course.

7. Undergraduate engineering students, who are taking graduate ESM courses as technical electives, should have completed or be concurrently enrolled in ESM 450 (Economic Analysis and Operations).
8. For the Master of Science in Engineering Management or Science Management, students must have a 3.0 GPA in graduate courses that are part of their program.

Course Descriptions

CE 334 2 Credits
PROPERTIES OF MATERIALS (1+3)
Introduction to structures and properties of engineering materials. Standard properties of common engineering materials: steel, aluminum, concrete and wood will be tested. The course will review theoretical bases and experimental mechanics of buckling of columns, bending of beams and tension-compression tests. Strain gages, brittle coating and photoelasticity theories will also be discussed. Prerequisite: ES 331

CE 344 3 Credits
WATER RESOURCES ENGINEERING (3+0)
Fundamentals of engineering hydrology and hydraulic engineering, precipitation, runoff, statistical methods, flood control, open channels, and groundwater. Prerequisite: ES 341. Spring semester.

CE 431 4 Credits
STRUCTURAL ANALYSIS (4+0)
Review of statically determinate beams and trusses. Shearing, bending moment and influence line diagrams for statically determinate and indeterminate structures will be discussed. Topics will also include deflections, elastic lines, and an introduction to matrix and computer analyses. Prerequisite: ES 331

CE 432 3 Credits
STEEL DESIGN (3+0)
Advantages, structure, and mechanical properties of steel. Procedures and standard requirements for design of steel tension members, beams and columns under axial, and eccentric load will be discussed. The course will also review connections design. Prerequisites: CE 334 and CE 431.

CE 433 3 Credits
CONCRETE DESIGN (3+0)
Advantages, structure, and mechanical properties of concrete and reinforced concrete. Standard procedures and design for flexure, shear, diagonal tension, torsion and combined compression and bending will be discussed. Prerequisites: CE 334 and CE 431.
CE 441 3 Credits
SANITARY ENGINEERING (3+0)
Introduction to fundamentals of environmental engineering including theory and application of water and wastewater engineering and water supply. Wastewater characteristics, collection, treatment, and disposal. Introductory information on solid waste management and air pollution control. Prerequisites: Senior standing or permission of department coordinator. Spring semester, alternate years.

CE 676 3 Credits
COASTAL ENGINEERING (3+0)
Review of deep and shallow water waves, littoral drift, coastal structures, pollution problems, harbor seiches.

ES 309 3 Credits
ELEMENTS OF ELECTRICAL ENGINEERING (3+0)

ES 331 4 Credits
MECHANICS OF MATERIALS (4+0)
Stress-strain relations, torsion, review of shear and bending moments diagrams for beams, flexural and shearing stresses, buckling of columns, elementary design of beams and columns, combined stresses, riveted and bolted connections. Prerequisite: ES 209.

ESM 601 3 Credits
ENGINEERS IN ORGANIZATIONS (3+0)
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. Prerequisites: B.S. degree in Engineering or a Physical Science or permission of instructor. Fall semester.

ESM 602 3 Credits
MARKETING FOR ESM (3+0)
Marketing of professional services and technical products, including new business development, proposal writing, bid preparation, and advertising for complex engineering and scientific products. Prerequisites: B.S. degree in Engineering or a Physical Science or permission of instructor.
ESH 611 3 Credits
BASIC AND COST ACCOUNTING FOR ESM (3+0)
A course designed to prepare engineers and scientists to use basic and cost accounting data effectively in managing engineering and scientific effort.
Prerequisites: B.S. degree in Engineering or a Physical Science or permission of instructor. Fall semester.

ESH 612 3 Credits
FISCAL DECISIONS IN ESM (3+0)
Development of ability to seek out needed information, analyze it, and make recommendations and decisions over a wide range of fiscal problems involved in engineering and scientific effort. Cases will be used. Topics will involve equipment decisions, capital acquisitions, methods changes, and allied problems as found in engineering and scientific work situations.
Prerequisites: ESM 611 and either ESM 605 or an undergraduate course in Engineering Economy. Spring Semester.

ESH 613 3 Credits
HUMAN FACTORS IN ESM (3+0)
Human factors with which engineers and scientists will be involved in the work place. These concern labor and union concerns, human relations as a major factor in supervision, and other problems of the engineer or scientist in working with people.
Prerequisites: B.S. degree in Engineering or a Physical Science or permission of instructor. Spring semester.

ESH 620 3 Credits
STATISTICS FOR ESM (3+0)
Forecasting applications and techniques—technological, time series, judgmental, and regression. Other topics will include decision stress, Bayesian statistics, utility theory and tradeoffs between expected value and risk in decision making, bidding strategies, data analysis emphasizing goodness-of-fit, and the use of statistical software.
Prerequisite: undergraduate course in probability and inferential statistics and full calculus sequence. Fall semester.
ESM 621 3 Credits
OPERATIONS RESEARCH (3+0)
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.
Prerequisite: Undergraduate probability and statistics course. Spring semester.

ME 601 3 Credits
SOUND CONTROL AND MEASUREMENT (3+0)
Characteristics of sound, methods and scales used to measure and characterize sound, engineering approaches used to control sound levels.
Prerequisites: Architecture or permission of instructor.
SCHOOL OF BUSINESS AND PUBLIC AFFAIRS

BUSINESS ADMINISTRATION

DEGREE REQUIREMENTS

A total of 122 credits is required for the degree. Of the 122 credits required for the BBA degree a student must successfully complete at least 49 credits outside the fields of accounting, business administration and economics. A minimum of 60 upper division credits is required for the BBA degree.

<table>
<thead>
<tr>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Requirements</td>
</tr>
<tr>
<td>BA 325 Financial Management</td>
</tr>
<tr>
<td>BA 331 Business Law I</td>
</tr>
<tr>
<td>BA 335 Management Principles and Practices</td>
</tr>
<tr>
<td>BA 343 Principles of Marketing</td>
</tr>
<tr>
<td>BA 373 Elementary Statistics</td>
</tr>
<tr>
<td>BA 377 Operations Management</td>
</tr>
<tr>
<td>BA 462 Administrative Policy</td>
</tr>
</tbody>
</table>

| Accounting Major Requirements |
| Acct 301 Intermediate Accounting II | 3 |
| Acct 302 Intermediate Accounting III | 3 |
| Acct 310 Income Tax | 3 |
| Acct 342 Managerial Cost Accounting | 3 |
| Acct 401 Advanced Accounting | 3 |
| Acct 404 Advanced Cost Accounting and Controllership | 3 |
| Acct 452 Auditing | 3 |
| BA 332 Business Law II | 3 |
| Upper-Division Economics Elective | 3 |
| Upper-Division Electives | 18 |

| Finance Major Requirements |
| Acct 260 Intermediate Accounting I | 3 |
| BA 426 Financial Markets and Institutions | 3 |
| BA 427 Multinational Business Finance | 3 |
| BA 450 Investment Management | 3 |
| Econ 324 Intermediate Macroeconomics | 3 |
| Econ 350 Money and Banking | 3 |
| Econ 351 Public Finance | 3 |
| Upper-Division Electives | 18 |
Management Major Requirements

Business Management Emphasis:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>BA 359</td>
<td>3</td>
</tr>
<tr>
<td>Regulation of Industry</td>
<td></td>
</tr>
<tr>
<td>BA 361</td>
<td>3</td>
</tr>
<tr>
<td>Personnel Management</td>
<td></td>
</tr>
<tr>
<td>BA 376</td>
<td>3</td>
</tr>
<tr>
<td>Management Information Systems</td>
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<td>BA 461</td>
<td>3</td>
</tr>
<tr>
<td>Labor Management Relations</td>
<td></td>
</tr>
<tr>
<td>BA 488</td>
<td>3</td>
</tr>
<tr>
<td>Social Issues in Business</td>
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</tr>
<tr>
<td>BA 480</td>
<td>3</td>
</tr>
<tr>
<td>Organizational Theory and Behavior</td>
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</tr>
<tr>
<td>BA 489</td>
<td>3</td>
</tr>
<tr>
<td>Corporate Management and Planning</td>
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</tr>
<tr>
<td>Econ 429</td>
<td>3</td>
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<tr>
<td>Business Forecasting</td>
<td></td>
</tr>
<tr>
<td>Upper-Division Electives</td>
<td>15</td>
</tr>
</tbody>
</table>

Course Descriptions

BA 411 3 Credits

COMPUTER ANALYSIS IN REAL ESTATE DEVELOPMENT AND MANAGEMENT (3+0)

The use of computer technology for the management of real property, analysis of real estate investment properties, real estate marketing research and feasibility analysis, appraisal assignments, and real estate development project and analysis. The student is expected to use existing software and to write original problems applicable to real estate problems. The student is expected to spend 3 hours per week utilizing the SBPA computer lab.

Prerequisites: BA 110, BA 410

BA 432/PS 432/JPC 432 3 Credits

RESEARCH METHODS (3+0)

Course no longer cross-referenced with JPC.

PADM 604 3 Credits

RESEARCH METHODS IN ADMINISTRATION (3+0)

Methods and techniques of empirical research. Scientific method, design of research, data collection and analysis methods, survey sampling, statistical analysis including use of computers in data analysis will be covered. The student is expected to spend 3 hours per week utilizing the SBPA computer lab.

Prerequisite: Introductory statistics.
ADMISSION

BACHELOR OF SCIENCE WITH A MAJOR IN HEALTH SCIENCE

Admission requirements are shown on pp. 25-29 of the 1986-87 catalog.

BACCALAUREATE DEGREE REQUIREMENTS - HEALTH SCIENCE

1. Complete the Degree Requirements for a baccalaureate degree as shown on pp. 61-67 of the 1986-87 catalog. Within the General Education Degree Requirements, health science majors must complete the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA 110</td>
<td>Computer Concepts in Business</td>
<td>3</td>
</tr>
<tr>
<td>AS 300</td>
<td>Elementary Statistics</td>
<td>3</td>
</tr>
<tr>
<td>Biol 111</td>
<td>Human Anatomy and Physiology I</td>
<td>4</td>
</tr>
<tr>
<td>Biol 112</td>
<td>Human Anatomy and Physiology II</td>
<td>4</td>
</tr>
<tr>
<td>Psy 111</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>Soc 101</td>
<td>Introduction to Sociology</td>
<td>3</td>
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2. Required Support Courses. Complete all courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chem 120</td>
<td>Survey of Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>Chem 121</td>
<td>Elementary Biochemistry</td>
<td>4</td>
</tr>
<tr>
<td>Anth 202</td>
<td>Cultural Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>Psy 265</td>
<td>Psychology of Abnormal Behavior</td>
<td>3</td>
</tr>
<tr>
<td>Psy 275</td>
<td>Social Psychology</td>
<td>3</td>
</tr>
<tr>
<td>BA 335</td>
<td>Management Principles and Practices</td>
<td>3</td>
</tr>
<tr>
<td>Soc 343</td>
<td>Sociology of Deviant Behavior</td>
<td>3</td>
</tr>
<tr>
<td>Soc 407</td>
<td>Formal Organizations</td>
<td>3</td>
</tr>
<tr>
<td>Econ 202</td>
<td>Introductory Microeconomics</td>
<td>3</td>
</tr>
</tbody>
</table>

3. Health Science Core Courses. Complete all courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HS 231</td>
<td>Introduction to Health Science</td>
<td>3</td>
</tr>
<tr>
<td>HS 301</td>
<td>Effective Communication for Health Professionals</td>
<td>3</td>
</tr>
<tr>
<td>HS 380</td>
<td>Research Methods in Health and Human Services</td>
<td>3</td>
</tr>
<tr>
<td>HS 430</td>
<td>Introduction to Epidemiology</td>
<td>3</td>
</tr>
<tr>
<td>HS 462</td>
<td>Issues in Health Care</td>
<td>3</td>
</tr>
<tr>
<td>HS 483</td>
<td>Society and Substance Abuse</td>
<td>3</td>
</tr>
</tbody>
</table>
4. **Health Science Electives.** Complete 12 credits, choosing from:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HS 203</td>
<td>Normal Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>HS 232</td>
<td>Introduction to Alaskan Personal Health</td>
<td>3</td>
</tr>
<tr>
<td>HS 303</td>
<td>Preventive and Therapeutic Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>HS 316</td>
<td>Pathophysiology and Therapeutics I</td>
<td>3</td>
</tr>
<tr>
<td>HS 317</td>
<td>Pathophysiology and Therapeutics II</td>
<td>3</td>
</tr>
<tr>
<td>HS 381</td>
<td>Research Strategies in Health Settings</td>
<td>3</td>
</tr>
<tr>
<td>HS 420</td>
<td>Client Education in Health Care</td>
<td>2</td>
</tr>
<tr>
<td>HS 480</td>
<td>Psychology of Addictions</td>
<td>3</td>
</tr>
<tr>
<td>HS 481</td>
<td>Treatment of Substance Abusers</td>
<td>3</td>
</tr>
<tr>
<td>HS 484</td>
<td>Alcohol Policy and Prevention</td>
<td>3</td>
</tr>
<tr>
<td>HS 486</td>
<td>Alcohol: Transcultural Issues</td>
<td>3</td>
</tr>
<tr>
<td>HS 487</td>
<td>Substance Abuse and the Family</td>
<td>3</td>
</tr>
</tbody>
</table>

5. **General Electives.** Complete 23 credits: These electives must be taken outside of the School of Health Science and must be approved by the Health Science faculty.

6. At least 48 upper-division credits are required to graduate.

7. A total of 120 credits is required for the degree.

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**BACCALAUREATE DEGREE REQUIREMENTS - NURSING SCIENCE**

Electives (must be in Humanities, Social Sciences, Mathematics, or Science—see your advisor for additional limitations) to total..................................................128

At least 48 upper-division credits are required to graduate.

A total of 128 credits is required for the degree.

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**MINORS - HEALTH SCIENCE**

A minor in Substance Abuse requires 15 credits and must include:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HS 483</td>
<td>Society and Substance Abuse</td>
<td>3</td>
</tr>
</tbody>
</table>
2. 12 credits from the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HS 480</td>
<td>Psychology of Addictions</td>
<td>3</td>
</tr>
<tr>
<td>HS 481</td>
<td>Treatment of Substance Abusers</td>
<td>3</td>
</tr>
<tr>
<td>HS 484</td>
<td>Alcohol Policy and Prevention</td>
<td>3</td>
</tr>
<tr>
<td>HS 486</td>
<td>Alcohol: Transcultural Issues</td>
<td>3</td>
</tr>
<tr>
<td>HS 487</td>
<td>Substance Abuse and the Family</td>
<td>3</td>
</tr>
</tbody>
</table>

A minor in Health Science requires the following 15 credits:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HS 231</td>
<td>Introduction to Health Science</td>
<td>3</td>
</tr>
<tr>
<td>HS 301</td>
<td>Effective Communication for Health Professionals</td>
<td>3</td>
</tr>
<tr>
<td>HS 380</td>
<td>Research Methods in Health &amp; Human Services</td>
<td>3</td>
</tr>
<tr>
<td>HS 430</td>
<td>Introduction to Epidemiology</td>
<td>3</td>
</tr>
<tr>
<td>HS 462</td>
<td>Issues in Health Care</td>
<td>3</td>
</tr>
</tbody>
</table>

(Master of Science with a Major in Nursing)

A three semester sequence to provide advanced clinical preparation in a specialty area. Clinical options are psychosocial nursing, family nurse practitioner and community health nursing. Nursing theory and research methods are an integral part of advanced nursing practice. A research thesis is required of all students.

Graduate Admission Requirements

1. Application to the University of Alaska, Anchorage and Graduate Application to the College of Nursing and Health Sciences.
2. Baccalaureate degree in nursing from a National League of Nursing accredited program.
3. A cumulative Grade Point Average of 3.0 or above on a 4.0 scale.
4. Recent scores from the Graduate Record Examination (test scores must have been taken within the previous three years).
5. Official college transcripts from current and previous studies.
6. Three letters of recommendation.
7. Evidence of recent preparation in history taking, basic physical assessment skills and pathophysiology (required for Family Nurse Practitioner component).
8. A grade of 2.0 or better in a recent basic statistics course which includes both descriptive and inferential statistics.
9. A grade of 2.0 or better in a recent basic research methods course.
10. Eligibility for licensure as a registered nurse in the State of Alaska.
11. A statement of goals indicating professional career plans and development.

Special consideration may be given to candidates with clinical expertise and a proven record of professional contributions. Such candidates will need to submit documentation along with their petition to the graduate faculty for special consideration.

Deadline for submission of applications and all other documentation is March 1st for admission to the graduate program in the Fall semester and October 1st for admission to the graduate program in the Spring semester.

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COURSE SEQUENCE

Master of Science - Nursing

Family Nurse Practitioner component:

<table>
<thead>
<tr>
<th>Semester I</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NS 620 Nursing Research Methods</td>
<td>3</td>
</tr>
<tr>
<td>NS 621 Nursing Theory I</td>
<td>3</td>
</tr>
<tr>
<td>NS 623 Application in Nursing Research</td>
<td>1</td>
</tr>
<tr>
<td>NS 626 Principles of Epidemiology or NS 625 Biostatistics for Health Practitioners</td>
<td>2</td>
</tr>
<tr>
<td>NS 660 Family Nurse Practitioner I</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester II</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NS 622 Nursing Theory II</td>
<td>2</td>
</tr>
<tr>
<td>NS 642 Professional Nursing in Perspective</td>
<td>3</td>
</tr>
<tr>
<td>NS 661 Family Nurse Practitioner II</td>
<td>6</td>
</tr>
<tr>
<td>NS 699 Thesis</td>
<td>2</td>
</tr>
<tr>
<td>NS 610 Pharmacology for Primary Care</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester III</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NS 662 Family Nurse Practitioner III</td>
<td>6</td>
</tr>
<tr>
<td>NS 699 Thesis</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
</tr>
</tbody>
</table>
NS 663  Clinical Concentration - F.N.P. ............ 3
(Post graduate preceptorship - one month full-time clinical practice for qualification for the American Nurses Association, Family Nurse Practitioner Certification Examination)

Psychosocial Nursing component:  

**Semester I**
- NS 620  Nursing Research Methods .................. 3
- NS 621  Nursing Theory I .......................... 3
- NS 626  Biostatistics for Health Professionals .... 2
- NS 623  Application in Nursing Research ........... 1
- NS 670  Interpersonal Theory and Therapeutics .... 3
- NS 676  Psychosocial Assessment .................. 2

**Semester II**
- NS 622  Nursing Theory II .......................... 2
- NS 642  Professional Nursing in Perspective ....... 3
- NS 671  Family Therapeutics ........................ 3
- NS 673  Family Adaptations and Health ............ 2
- NS 699  Thesis .................................... 2

**Semester III**
- NS 672  Psychosocial Nursing III: Community .... 6
- NS 699  Thesis .................................... 3
- Elective .......................................... 3

Community Health Nursing component:  

**Semester I**
- NS 620  Nursing Research .......................... 3
- NS 621  Nursing Theory I .......................... 3
- NS 623  Applications in Nursing Research ......... 1
- NS 625  Biostatistics for Health Professionals .... 2
- NS 626  Principles of Epidemiology ............... 2
- NS 650  Advanced Community Health Nursing I ...... 3

**Semester II**
- NS 622  Nursing Theory II .......................... 2
- NS 627  Advanced Epidemiology and Biostatistics ..... 2
- NS 642  Professional Nursing in Perspective ....... 3
- NS 651  Advanced Community Health Nursing II ...... 3
- NS 657  Occupational and Environmental Health ...... 2
- NS 699  Thesis .................................... 2

**Semester III**
- NS 652  Advanced Community Health Nursing III .... 3
- NS 699  Thesis .................................... 3
- Elective .......................................... 2-3

36 to 40 semester credits are required for all components.
Course Descriptions

HS 231 3 Credits
INTRODUCTION TO HEALTH SCIENCES (3+0)
Introductory survey course for majors and nonmajors in health care fields. Emphasis is on understanding the health science field including history of health care and disease control, treatment and health provider roles, health consumerism and theories and models of health behavior. Includes personal and social health issues enjoying popular currency, such as fitness, abuse, injury control, environmental pollution and communicable diseases.

HS 232 3 Credits
INTRODUCTION TO ALASKAN PERSONAL HEALTH (3+0)
An introductory survey course designed to guide individuals to make informed choices about personal health care. Emphasis is placed upon the alternative health care choices which have evolved through research, technology, and changes in health delivery patterns. Of special importance are the methods of self-care and personal risk reduction that determine the health of Alaskans.

HS 303 3 Credits
PREVENTIVE AND THERAPEUTIC NUTRITION (3+0)
Role of food and dietary habits in prevention of diseases such as hypertension, heart disease, cancer and dental caries. Treatment of diabetes, alcoholic liver disease, obesity, anorexia nervosa, kidney disease, heart disease and others by means of alterations in food consumption is covered.
Prerequisite: HS 203

HS 430 3 Credits
INTRODUCTION TO EPIDEMIOLOGY (3+0)
An introduction to the uses of epidemiologic methods in health care settings. Topics will include natural history of diseases, levels of prevention, disease etiology, and sources of community health data. Emphasis is placed on descriptive rather than analytical epidemiology.
Prerequisite: AS 300 or equivalent.

HS 462 3 Credits
ISSUES IN HEALTH CARE (3+0)
Analysis of issues and trends in health care. Particular attention is given to the exploration of changes in health care needs, public policy and alternatives in the organization and delivery of health care.
HS 482  RAPID ECONOMIC CHANGE AND SOCIAL HEALTH (3+0)  3 Credits
Delete

HS 484  ALCOHOL POLICY AND PREVENTION (3+0)  3 Credits
Analysis of alternative policies affecting the prevention of alcohol abuse and alcoholism. This course is designed to examine and broaden the public debate over how to deal with alcohol-related problems. Emphasis will be given to alternative policy approaches that may hold possibilities for preventing or mitigating the harmful effects of alcohol abuse at the population or community level, rather than to individualized approaches designed to identify and treat individual alcoholics.

HS 486  ALCOHOL: TRANSCULTURAL ISSUES (3+0)  3 Credits
Examination and comparison of the use and abuse of alcohol, as well as the treatment and prevention of alcoholism and alcohol abuse, across cultures and subcultures and across national boundaries. The focus will be a comparative examination of Native and non-Native subgroups in Alaska in relation to Native and non-Native subgroups in the contiguous 48 states, and in relation to Alaska's circumpolar neighbor countries and other societies undergoing rapid socioeconomic and technological change.

HS 487  SUBSTANCE ABUSE AND THE FAMILY (3+0)  3 Credits
Review and exploration of theoretical perspectives and application of approaches to intervention and treatment of families impacted by substance abuse. Emphasis is on understanding the theoretical foundations and applications of family therapy approaches to substance abuse-related problems.

RS 644  RESEARCH IN HEALTH BEHAVIOR (2+0)  2 Credits
An inquiry into the psychosocial aspects of human behavior as it affects the physical health of individuals. Research from nursing, social psychology, behavioral medicines and health psychology is reviewed, providing opportunities for students to understand how health-related attitudes, values, beliefs, and norms affect health promotion and illness recovery. Emphasis is placed on reviewing studies which incorporate models, theories, and concepts that are useful in explaining or predicting health behavior, especially prevention.
Prerequisites: Graduate standing or permission of instructor.
HS 646  
HEALTH EDUCATION (2+0)  
Theory and methods for promoting voluntary changes in health-related behavior with a focus on primary prevention. This course assists students to develop skills in specifying behavior influencing a health problem and delineating predisposing, enabling and reinforcing factors that can be modified. Other content areas include specifying target behaviors for change, selection of educational strategies, population versus individual perspective, and the use of persuasive communication. Prerequisite: Graduate standing or permission of instructor.

HS 655  
PRINCIPLES OF HEALTH PROTECTION (2+0)  
An overview of environmental and regulatory procedures designed to protect the public's health. Health effects and control procedures for major physical and biological health hazards are reviewed, including communicable diseases, air pollution, traumatic injury, and the contamination of food, water, and milk. The historical and legal basis for health protection activities are also discussed.

NS 318  
ISSUES IN WOMEN'S HEALTH (2+0)  
Exploration of current issues, research, controversies affecting women's health with a focus on health promotion and maintenance. Life cycle issues will be addressed. Special needs and interventions for unique populations will be discussed. The focus on health promotion, health maintenance and an advocacy viewpoint suggest this course for the health professional.

NS 610  
PHARMACOLOGY FOR PRIMARY CARE (2+0)  
An advanced level pharmacology course that assists health care professionals in the selecting, prescribing, and monitoring of pharmaceutical agents utilized in the primary care setting in the community. Over-the-counter as well as legend drugs will be included. Emphasis is on the pharmacodynamics of medications most commonly utilized for respiratory diseases, ear infections, genitourinary diseases, preventive health, skin problems, minor musculoskeletal problems, and preparations commonly utilized in women's health care. Prerequisite: Must be licensed health care provider, or senior nursing status, or permission of instructor.
NS 621  
NURSING THEORY I (3+0)  
3 Credits  
Designed to integrate theory from a variety of disciplines that explain human responses in health and illness. Theories will be analyzed for adequacies as they relate to conceptualization, measurement, and application. The selected theories to be covered vary but include theories about adaptations, coping, promotion, prevention and change. Prerequisite: Graduate standing or permission of instructor.

NS 622  
NURSING THEORY II (2+0)  
2 Credits  
Focuses on principles of theory development as related to nursing research and practice and the evolution of nursing science. Extant nursing theories are critically reviewed. Prerequisites: NS 620, NS 621, permission of instructor.

NS 623  
APPLICATIONS IN NURSING RESEARCH (1+0)  
1 Credit  
Expediting the planning of a master's degree research endeavor in nursing. Emphasis is placed on choosing a research topic, selecting a research site, obtaining human subject's research approval, organizing data collection, data analysis, and preparing the final document. Students are expected to apply the knowledge gained from other research courses to the start-up of their own research. Prerequisite: Graduate standing or permission of instructor.

NS 640  
HEALTH CARE IN SOCIAL CONTEXT (3+0)  
3 Credits  
Delete.

NS 642  
PROFESSIONAL NURSING IN PERSPECTIVE (3+0)  
3 Credits  
Processes for development of new roles for the advanced nurse specialist. Current and changing patterns of health care delivery and theoretical frameworks from various social science sources are used. Examples of issues discussed include practice arrangements, legal and ethical questions, marketing of nursing services and establishing support networks. Prerequisite: Graduate standing or permission of instructor.

NS/HS 644  
RESEARCH IN HEALTH BEHAVIOR (2+0)  
2 Credits  
Course no longer cross-referenced. See HS 644.
NS/HS 646
HEALTH EDUCATION (2+0)
Course no longer cross-referenced. See HS 646.

NS 655
PRINCIPLES OF HEALTH PROTECTION (2+0)
Course deleted. See HS 655.

NS 657
OCCUPATIONAL AND ENVIRONMENTAL HEALTH (2+0)
An overview of factors within the environment and worksite that influence public health. Environmental topics include the identification and control of health problems related to wastes, animals, pollution and the contaminants of food, water and milk. Occupational emphasis is placed on the epidemiology of work-related problems, principles of Industrial Hygiene, and the health risk of various occupations. Prerequisite: Graduate standing or permission of instructor.

NS 659
TOPICS IN COMMUNITY AND PUBLIC HEALTH NURSING (2+0)
Delete.

NS 660
FAMILY NURSE PRACTITIONER I (4+8)
Provides the student with beginning preparation in the primary care component of the Family Nurse Practitioner role. Family and individual health promotion, health maintenance, and prevention of disease are the major emphasis. Clinical emphasis is on health assessment and management skills related to women's health care. Prerequisites: Graduate standing and permission of instructor.

NS 663
FAMILY NURSE PRACTITIONER--CLINICAL CONCENTRATION (4+160)
A post-graduate preceptored clinical concentration course for graduates who hold Master of Science degree in Nursing with Family Nurse Practitioner specialty. The course is required for students who are planning to take the American Nurses Association, Family Nurse Practitioner Certification Examination. Course provides intensive full-time practice in an expanded nursing role under preceptor supervision at an appropriate clinical site for 4 weeks. Includes two, 2-hour process seminars on campus. Prerequisite: Completion of Master of Science degree from accredited School of Nursing with FNP specialty.
NS 670
INTERPERSONAL THEORY AND THERAPEUTICS (2+4)
Focuses on the theory, research and clinical approaches related to the psychosocial health of individuals of groups. Current trends and issues in the treatment of psychosocial disablements are discussed in the context of influence on practice. Particular attention is given to interpersonal dynamics and behavior as basic processes by which assessment and interventions occur. Clinical experiences provide students opportunity to apply and test psychosocial theory and therapeutics.
Prerequisites: Permission of instructor and graduate standing.

NS 671
FAMILY THERAPEUTICS (2+4)
Focuses on the theory, research and clinical literature related to the psychosocial health of families. Current trends and issues in family research and clinical applications are discussed in the context of the influence of psychosocial practice. Particular attention is given to family structure and processes as a basis for assessment and intervention. Clinical experiences provide opportunity to apply and test family theory and therapeutics.
Prerequisites: Graduate standing and permission of instructor.

NS 676
PSYCHOSOCIAL ASSESSMENT (2+0)
Designed to explore theoretical and clinical aspects of psychosocial assessment of individuals, groups and families. Evaluation of a variety of assessment approaches are included.
Prerequisites: Graduate standing and permission of instructor.