University of Alaska, Anchorage

The University of Alaska, Anchorage, is a major unit of the University of Alaska statewide system of higher education. Under the direction of the Board of Regents, the University of Alaska serves the people of America's largest state through urban centers at Bethel, Fairbanks, Kenai, Ketchikan, Kodiak, Kotzebue, Nome, Palmer, Sitka, Soldotna, Valdez and 13 Rural Education Centers. Information about the programs of each unit in the system may be obtained from that unit.

It is the policy of the University of Alaska to provide equal educational and employment opportunities and to provide service and benefits to all students and employees without regard to race, color, religion, national origin, sex, age, disability, or status as a Vietnam era or disabled veteran. This policy is in accordance with the laws enforced by the Department of Education and the Department of Labor including Presidential Executive Order 11246, as amended, Title VI and Title VII of the 1964 Civil Rights Act, Title IX of the Education Amendments of 1972, the Veteran's Readjustment Assistance Act of 1974, the Vocational Rehabilitation Act of 1973, the Age Discrimination Acts of 1974-75, and Alaska Statute 18.80.220. Inquiries regarding application of these and other regulations should be directed either to the Affirmative Action Officer of the University of Alaska, Anchorage; the Office of Civil Rights, Department of Education, Seattle, Washington; or to the Office of Federal Contract Compliance Programs, Department of Labor, Seattle, Washington.

University of Alaska, Anchorage

1987-88 Catalog

Catalogs and bulletins may be purchased for $3.00 from the Campus Bookstore, University of Alaska, Anchorage, 2905 Providence Drive, Anchorage, Alaska 99508. Telephone: (907) 786-4759.

The University of Alaska, Anchorage is fully accredited by the Commission of Colleges of the Northwest Association of Schools and Colleges.

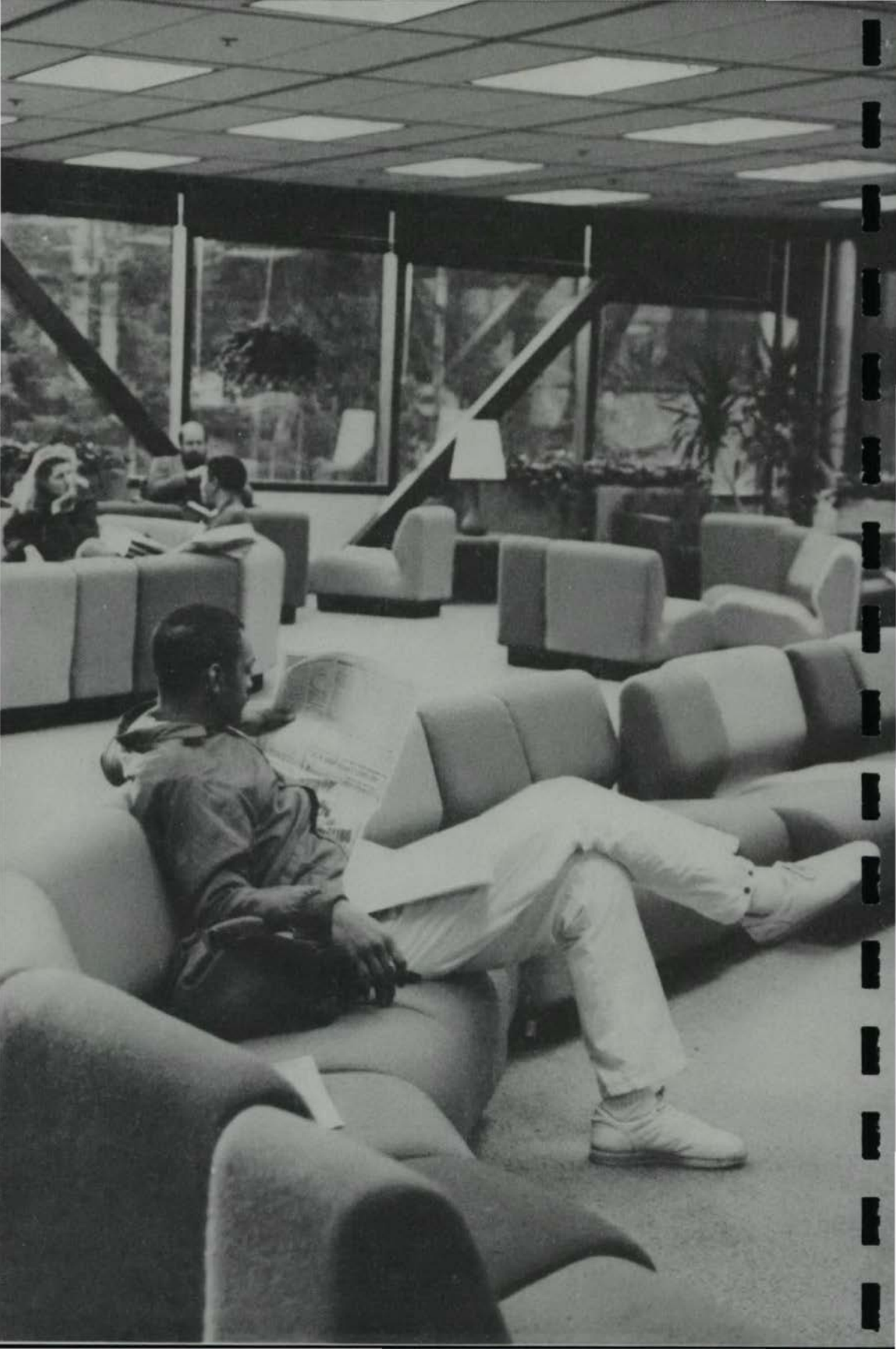
The School of Nursing's baccalaureate and master's programs are accredited by the National League for Nursing.

The Bachelor of Social Work Program is accredited by the Council on Social Work Education (CSWE).

The Bachelor of Science Degree in Civil Engineering is accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET).

It is the responsibility of the individual student to become familiar with the announcements and regulation of UAA printed in this catalog.

While every effort is made to ensure the accuracy of the information contained in this catalog; the *University of Alaska, Anchorage Catalog* is not a contract but rather a guide for the convenience of students. The University reserves the right to change or withdraw courses, to change the fees, rules and calendar for admission registration, instruction, and graduation and to change other regulations affecting the student body, at any time.



ACADEMIC CALENDAR
UNIVERSITY OF ALASKA, ANCHORAGE

Fall Semester 1987

Fall 1987 Graduate Applications for Admission Due (for Counseling Psychology and Nursing)	March 1
Fall 1987 Early Registration	**
Fall 1987 Graduate Applications for Admission Due (with the exceptions of Counseling Psychology and Nursing)	May 1
Fall 1987 Undergraduate Applications for Admission Due	May 1
Early Registration Fees Due	**
New Student Orientation	August 18
Fall 1987 Regular Registration	**
Instruction Begins	August 27
Late Registration Begins	**
Late Registration Fee Begins	**
Add/Drop Begins	**
Add/Drop Fee Begins	**
100% Refund Deadline	August 28
Labor Day Holiday	September 7
Late Registration Ends	**
Graduate Extended Registration Deadline	September 18
Add Deadline	**
Drop Deadline	**
Credit/No Credit Deadline	September 18
Applications for Diploma Due	September 18
Last Day for Any Refund	September 18
Spring 1988 Graduate Applications for Admission Due (with the exception of Counseling Psychology)	October 1
Spring 1988 Undergraduate Applications for Admission Due	October 1
Withdrawal Deadline	**
Credit to Audit (Vice Versa) Deadline	October 17
Spring 1988 Early Registration	**
Thanksgiving Holiday	November 26, 27
Final Examination Week	December 10-16
Last Day of Instruction	December 16
Commencement	December 17
Grades Due	December 21

Dates Subject to Change

** For information concerning Registration and Add/Drop, please refer to the published class schedules.

Spring Semester 1988

Spring 1988 Undergraduate Applications for Admission Due ..... October 1
Spring 1988 Graduate Applications for Admission Due ..... October 1
(with the exceptions of Counseling Psychology and Nursing)
Spring 1988 Early Registration ..... **
New Student Orientation ..... January 11
Spring 1988 Regular Registration ..... **
Instruction Begins ..... January 18
Late Registration Begins ..... **
Late Registration Fee Begins ..... **
Add/Drop Begins ..... **
Add/Drop Fee Begins ..... **
100% Refund Deadline ..... January 19
Late Registration Ends ..... **
Graduate Extended Registration Deadline ..... February 5
Add Deadline ..... **
Drop Deadline ..... **
Credit/No Credit Deadline ..... February 5
Applications for Diploma Due ..... February 5
Last Day for Any Refund ..... February 8
Fall 1988 Graduate Applications for Admission Due ..... March 1
(for Counseling Psychology and Nursing)
Withdrawal Deadline ..... **
Credit to Audit (Vice Versa) Deadline ..... March 4
Spring Break ..... March 7-12
Summer 1988 Undergraduate Applications for Admission Due ..... April 1
Fall 1988 Early Registration ..... **
Fall 1988 Graduate Applications for Admission Due ..... May 1
(with the exceptions of Counseling Psychology and Nursing)
Fall 1987 Undergraduate Applications for Admission Due ..... May 1
Final Examination Week ..... May 2-7
Last Day of Instruction ..... May 7
Commencement ..... May 9
Grades Due ..... May 10

Dates Subject to Change

** For information concerning Registration and Add/Drop, please refer to the published class schedules.

Summer Session 1988

The Summer Session Calendar will be published in the Summer 1988 Class Schedule.

DEGREE PROGRAMS

BACHELOR OF ARTS

- Anthropology
- Art
- Biological Sciences
- Computer Science
- Economics
- English
- History
- Interdisciplinary Studies
- Journalism & Public Communications
- Justice
- Mathematics
- Music
- Political Science
- Psychology
- Sociology
- Theatre

BACHELOR OF BUSINESS ADMINISTRATION

- Accounting
- Economics
- Finance
- Management
- Marketing
- Real Estate

BACHELOR OF EDUCATION

- Elementary Education
- Physical Education
- Secondary Education

BACHELOR OF FINE ARTS

- Art

BACHELOR OF MUSIC

- Elementary Education
- Secondary Education
- Performance

BACHELOR OF SCIENCE

- Anthropology
- Biological Sciences
- Chemistry
- Civil Engineering
- Computer Science
- Health Science
- Interdisciplinary Studies
- Mathematics
- Medical Technology
- Natural Sciences
- Nursing Science
- Psychology
- Sociology

BACHELOR OF SOCIAL WORK

- Social Work

MASTER OF ARTS

- English
- Interdisciplinary Studies

MASTER OF ARTS IN TEACHING

Education
English

MASTER OF BUSINESS ADMINISTRATION

Business Administration

MASTER OF CIVIL ENGINEERING

Civil Engineering

MASTER OF EDUCATION

Adult Education
Counseling and Guidance
Elementary Education
Public School Administration
Reading
Secondary Education
Special Education

MASTER OF FINE ARTS

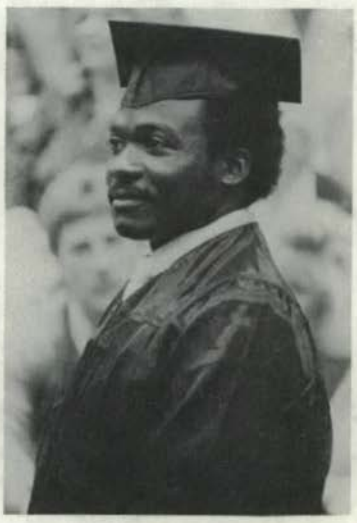
Creative Writing

MASTER OF PUBLIC ADMINISTRATION

Public Administration

MASTER OF SCIENCE

Arctic Engineering
Biological Sciences
Civil Engineering
Counseling Psychology
Engineering Management
Environmental Quality Engineering
Environmental Quality Science
Interdisciplinary Studies
Nursing
Planning
Science Management



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The Regents of the University of Alaska are appointed by the Governor and confirmed by the Legislature.

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CONTENTS

GENERAL INFORMATION

Introduction

The attractive wooded campus of the University of Alaska, Anchorage is convenient to shopping, housing, and entertainment. It is served by a public transportation system and many facilities are within walking distance. Surrounded by the spectacular scenery of snow-capped Alaskan peaks, UAA is only a short distance from fishing, hunting, and wilderness recreation. Summertime temperatures range between 60 and 70 degrees. Winters are less severe in Anchorage than in many U.S. cities. Anchorage, a city of 250,000 people, is the chief business, professional, international transportation, and entertainment center for the state.

Colleges and Schools

There are two colleges and four schools that form the basis of the University of Alaska, Anchorage. These are the College of Arts and Sciences, College of Nursing and Health Sciences, School of Justice, School of Education, School of Engineering, and the School of Business and Public Affairs. UAA has established a record of continuing growth and development in its instructional, research and public service activities. A high percentage of the UAA faculty have doctoral degrees. As a result, students will usually find their classes taught by highly qualified experienced faculty members.

Continuing Education

The Office of Continuing Education, a self-supporting program, was established to coordinate and further develop all continuing education activities. Many short courses, workshops, seminars, and conferences are designed to respond to public needs which fit the UAA mission and the university level of education, especially those needs for career development and currency among professionals.

This Office also assists in providing in-house training to the public and private sectors, conference and meeting management, and self-support academic credit courses, as well as continuing education unit and non-credit courses and programs. For additional information, please contact the Office of Continuing Education, University of Alaska, Anchorage, 3211 Providence Drive, Anchorage, Alaska 99508.

Organized Research Units

Organized research units operate within the structure of the schools and colleges.

In the School of Business and Public Affairs, the *Alaska Center for International Business* conducts interdisciplinary research and professional development activities related to market potential in Pacific-Asian nations for Alaskan resources and institutional impediments to resource development and international trade.

The *Institute of Social and Economic Research* conducts policy-and-problem oriented research on economic planning development, use of natural resources,

governmental institutions and political processes, communications, transportation, community organization and development, environmental policy and other public policy matters.

The *Center for Economic Education* is jointly sponsored by the Alaska Council for Economic Education and the University of Alaska, Anchorage. The Center conducts economic education classes and workshops for educators in the Anchorage and south central Alaska area and provides educational materials and other assistance to individuals and school districts.

In the School of Justice, *The Justice Center* undertakes interdisciplinary research pertinent to Alaska on justice policy and program development, evaluation of existing policy and programs, and under experimental conditions, implementation of model policies and programs.

The College of Nursing and Health Sciences, School of Health Sciences, has two research centers. *The Center for Alcohol and Addiction Studies* conducts interdisciplinary research pertinent to Alaska on the antecedents, correlates, and consequences of alcohol and drug abuse; on the implications and results of alcohol and drug abuse policies; and on the effects of alcohol and drug abuse on social, health, and public safety systems. *The Center for High Latitude Health Research* focuses its interdisciplinary research on frostbite and hypothermia.

Interested faculty and graduate students from any part of the University may be included in the activities of the organized research units when appropriate.

Computer Resources

The University of Alaska, Anchorage provides free computer access to all graduate and undergraduate students of the University. The academic computers are located at the three university campuses (Anchorage, Fairbanks and Juneau). Access to all systems is provided through an extensive data network that ties all computers in the University together. The academic computers provide over 50 software packages, along with most of the standard programming languages.

The computers available for student use are:

Anchorage	*Fairbanks*	*Juneau*
2 VAX 11/785 CPUs	1 VAX 8600 CPU 1 VAX 11/785	1 VAX 780 CPU
32 MB Memory	44 MB Memory	8 MB Memory
2070 MB Disk Storage	2484 MB Disk Storage	1656 MB Disk St.
2 Tape Drives	4 Tape Drives	2 Tape Drives
3 Line Printers	3 Line Printers	2 Line Printers

These systems are continuously in the process of being upgraded to provide increased computing resources.

In addition, the University of Alaska is a node of BITNET, a network that connects over 300 universities world-wide.

Additional information can be obtained from the Director of Academic Computing.

Facilities

Student Center

The Student Center provides space for a fountain and arboretum, and a general information, message, and scheduling desk. It is linked by computer terminal to other buildings on the campus. It provides office facilities for student government and other organizations and for the student newspaper. Activities are conducted in conference rooms and a variety of lounge areas, some with provision for taped music. The Student Center is equipped with a full food service and staff can cater banquets for more than 400 people. The Pub serves hofbrau foods and has lighting and sound systems for speakers and small entertaining performances. The work of student artists can be displayed in the Center's gallery, along with traveling exhibits.

University Library

The University Library collections comprise more than 464,000 bound volumes and government documents. Special collections include materials on Alaska and the polar region, 63,800 pieces of choral music, and 35,500 pieces of symphonic music, as well as collections of unpublished archives and manuscripts. Non-print materials, except for videotapes and 16 mm films, are housed in the library; the latter are available from Media Services at the Anchorage Community College. The library offers to its patrons at cost, a computer-search service providing access to a wide number of databases in a variety of subjects. The University of Alaska, Anchorage Library, through a consortium agreement, provides service to the Anchorage Community College and Alaska Pacific University. The Library building also serves as a facility for traveling museum exhibits, art shows, the Office of Continuing Education, and classrooms. The Library is a member of WLN (Western Library Network), an online data-base, linking library resources with the Pacific Northwest. The availability of collection information and online interlibrary loan services provides expanded service for library patrons. UAA is implementing an online catalog and an automated circulation system called GNOSIS. The goal in using GNOSIS is to link all Alaska university and community college libraries in a common pool of bibliographic information. Users will be able to access the collections of the participating libraries through public terminals. In this way material from around the state can instantly come to the attention of the researcher.

Physical Education Facility (Sports Center)

A large gymnasium, pool, ice rink, and other facilities allow well-rounded physical education, recreation, intramural, and inter-collegiate programs.

Science Building

The Science Building houses laboratory space for biology, chemistry, microbiology, anthropology, and a special preparation room. The building also houses the School

of Justice, which occupies the second floor, along with various units from the College of Arts and Sciences.

University Bookstore

The University Bookstore supplies textbooks and carries general interest books, magazines, miscellaneous supplies, and a large supply of UAA memorabilia, such as school rings, T-shirts, coffee cups, and backpacks.

The College of Arts and Sciences Building

The College of Arts and Sciences Building houses a major part of the campus' largest college. Social Sciences, Mathematics and some Humanities utilize this building, as do the Computer Center and the Microcomputing Laboratory for Mathematical Sciences. The School of Education's offices and Computer/Instructional Laboratories are located on the third floor; the Sports Medicine/Human Performance Laboratory is located on the first floor.

Engineering Building

In the Engineering Building, a laboratory space, a cold temperature room, and classroom areas provide a home to the School of Engineering. The structure also contains the School of Business and Public Affairs.

Administration Building

The Administration Building houses all student-related administrative services, business services, the Chancellor and Vice Chancellor's Office, and also provides space to the College of Nursing and Health Sciences. The College of Nursing has a conference room, classrooms, mock-up hospital and examining rooms, and a media laboratory on the second floor. The School of Health Sciences and its Center for Alcohol and Addiction Studies and Center for High Latitude Health Research are also housed here.

Arts Building

The new Arts Building serves as home to the theatre, art, and music departments, and other departments of humanities, and provides large size multi-purpose classrooms and lecture halls for general use.

Student Housing

The on-campus residence apartments are new. Each housing unit is built apartment style and will accommodate four students. This first phase of on-campus housing provides a home to single students without children. The apartments are located about a 10-minute walk from the Library, the Campus Center, the Sports Center, and classrooms. The apartments have complete kitchens and are fully furnished and

carpeted, including: dishwasher, dining table, sofas, chairs, tables, lamps, beds, desks, dressers, and closets.

Medical Facilities

The Anchorage campus is only a block away from a major hospital and many physician's offices. Students are advised to carry their own medical insurance.

STUDENT LIFE

Student Conduct

The rights of free speech and peaceable assembly being fundamental to the democratic process, the University supports the rights of students and other members of the University community to express their views and opinions on actions or ideas, to associate freely with others, and to assemble peacefully.

Whether expressing themselves as individuals or as organized groups, members of the University community are expected to conduct themselves responsibly and to respect the basic educational goals of the University.

Accordingly, the University insists that free expression be such that the rights of others are not violated. Deliberate disruption of educational processes and functions of the University would constitute such a violation. The University subscribes to the principles of due process and a fair hearing on student grievances. See Student Handbook for specific regulations and processes.

Student Development

The University provides services which help students make their educational careers more profitable and meaningful. While the principle aim of the University is to foster the intellectual growth of the student, it is recognized that the social, moral, physical, and spiritual development of the individual also is of prime importance. Mindful of its obligation to assist the total development of the student, the University continues to encourage individualization in the educational process.

Student Development provides: 1) career counseling; 2) job placement for graduating students and graduates of UAA; 3) testing; 4) counseling with students relative to their personal problems; 5) support of student organizations, activities and interest groups; 6) special services and advising; 7) housing; 8) services for disabled students; and 9) the promotion of high standards of academic and social conduct.

Career Counseling and Placement

The Career Counseling and Placement Center provides counseling and career employment services to UAA students and alumni. Counselors assist students in making decisions about educational plans, career goals, personal concerns, and day-to-day problems. Individual and group counseling relating to social skills and personal adjustment are also provided. All counseling is confidential.

The Center maintains student and alumni placement files; provides assistance in helping students make realistic career choices; holds sessions on writing resumes, job search and interviewing; and arranges interviews with potential employers. Computerized interest inventories are available for a small fee. Tests for admission to graduate and professional schools are administered by the Center.

Disabled Student Services

Physically handicapped and learning disabled students may receive help in planning schedules, registering for classes, and obtaining special services through several University offices. In instances where architectural barriers still exist, staff will help handicapped students gain access to classrooms and laboratories. The University cooperates with off-campus agencies to meet the needs of this student group. For information and assistance, consult the Office of Student Development.

Student Housing

Housing is limited to full-time students at either the University of Alaska, Anchorage or Anchorage Community College. To be considered full-time, undergraduate students must enroll for a minimum of 12 credits; graduate students must enroll in a minimum of 9 credits. All applications will be treated equally on a first-come-first-serve basis. **All full-time students are encouraged to apply as soon as possible.**

A percentage of apartments are specially designed to accommodate students with both temporary and permanent physical disabilities, including students who use wheelchairs. Please contact the Housing Office for additional information or requests for accessible housing.

Student Activities

UAA recognizes the value of student activities as part of a college education. Leadership experience gained through participation in self-governing organizations and programs encourages the development of civic responsibility. The Student Activities Director advises student government and works closely with its various committees. The Director also provides information and assistance to student clubs and organizations in such areas as recognition procedures, activities planning, and compliance with University policies and procedures.

Orientation

All freshmen and transfer students attending UAA for the first time may participate in Fall Orientation. The program is offered to help new students adjust to University life. During orientation, students meet with an academic advisor and receive registration information and assistance.

Affirmative Action

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, and 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/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 harrassment.

Financial Assistance

The Financial Aid Program assists students and prospective students in securing the funds needed to begin or to continue studies at the University. The state and federal government, the University and many private organizations make available financial assistance in the form of grants, scholarships, loans, and employment opportunities to students who demonstrate the need for such assistance to attend school. Eligibility is determined by a careful assessment of each student's financial situation taking into account the family's assets, income, debts, family members, and the estimated cost of attending college. Amount and type of award may vary depending upon State and Federal guidelines, student needs, and availability of funds.

Eligibility

To be considered for financial assistance a student must: 1) have a high school diploma or its equivalent; 2) be accepted for admission or continued attendance at UAA; 3) demonstrate financial need for federal assistance by submitting the Financial Aid Form to the College Scholarship Service; 4) submit an Alaska Student Loan Application for state supported aid; and 5) maintain satisfactory academic progress during the payment periods as defined for each program (see individual program regulations).

Application Procedures

Students seeking financial assistance to attend the University of Alaska, Anchorage should contact the Office of Admissions and Financial Aid for information and applications. Aid applications should be submitted at least six months prior to the beginning of the semester for which the student is applying. For first priority of assistance, completed applications should be received in the Office of Admissions and Financial Aid by June 1. Applications completed after this date will be given full consideration to the extent funds are available.

1. New students must apply for admission to UAA within the appropriate deadlines.
2. Complete the FINANCIAL AID FORM (FAF) and mail it with the processing fee to the College Scholarship Service, Box 380, Berkeley, California 94701. The University of Alaska, Anchorage code number is 4896.
3. Submit the Student Aid Report (SAR) from the PELL Grant Program to the Office of Admissions and Financial Aid.
4. Students who wish to apply for additional assistance, such as the Alaska State Student Loan or specific scholarships, may complete special applications available from the Office of Admissions and Financial Aid.
5. Students who wish to apply for Bureau of Indian Affairs grants or scholarships should contact the BIA or the appropriate Regional Corporation for applications.
6. Students applying for federal assistance who have previously attended another post-secondary institution must submit a Financial Aid Transcript for each institution previously attended.

Federal Verification

The Department of Education is reviewing financial aid applications. This is being done to determine the accuracy of the information reported and to assure that aid is being fairly distributed. The Financial Aid Office will need to verify the information on selected applications before students will be able to receive payment of the award. The following documents may be requested by the UAA Financial Aid Office: income tax return (copy), verification of household size, child support, untaxed income, number in college and dependency status. Selected students must submit verification documents within 30 days after the posted application deadlines for the Guaranteed Student Loan and other campus based aid. Application deadlines for the Guaranteed Student Loan and other campus based aid (SEOG, NDSL, CWSP) are October 31, for the fall semester; March 1, for the spring semester; and July 1, for the summer session. If verification materials are not received, financial aid will not be awarded for that semester/session. Any changes in the FAF or SAR resulting from the verification will result in the student making changes and resubmitting the corrected FAF to Berkeley and the SAR to Iowa.

Satisfactory Completion

To remain in good academic standing for state loans and federal assistance at the University of Alaska, Anchorage, the aid recipient must satisfactorily complete the number of credits upon which the aid was based each semester. In addition, the satisfactory grade point average minimum must be maintained. Grades which do not show satisfactory completion of courses are: F, I, AU, DF, NC, NS, W, and CEU.

Types of Financial Assistance

The four kinds of financial assistance are loans, grants, scholarships and part-time employment.

Loans must be repaid. Student loans generally have low interest rates, between five and ten percent. In most cases repayment does not begin until six to twelve months after study has concluded.

Scholarships are usually awarded for academic achievement or talent; grants on the basis of financial need.

Part-time employment may be either on or off campus. The hours are usually flexible and can fit into a student's class schedule.

Loans

1. NDSL—National Direct Student Loan. The National Direct Student Loan program is available to students enrolled at least half-time and who need a loan to meet their educational expenses. An undergraduate may borrow up to $6,000 for study toward a bachelor's degree; a graduate student may borrow up to $12,000 (including any amount borrowed under NDSL as an undergraduate).
2. ASLP—Alaska Student Loan Program. To be eligible for an ASL, a student must be a two year resident of the State of Alaska, hold a high school diploma or equivalent, be officially admitted to a baccalaureate, certificate, or graduate degree program and must maintain full time student status. Undergraduate students may borrow up to $5,500 a year to pay for educational expenses. Graduate students may borrow up to $6,500 per year. Applications are available at the Office of Admissions and Financial Aid and are submitted to the Post-secondary Commission, Financial Aid Office in Juneau.
3. GSL—Guaranteed Student Loan. The Guaranteed Student Loan program enables students to borrow directly from lenders in order to finance educational expenses. These loans are made by local lending institutions with interest paid by the federal government while student is in attendance. An undergraduate or graduate student enrolled at least half-time may apply for a GSL loan. Undergraduates may borrow a maximum of $2,500 per academic year; graduate students may borrow up to $5,000 per academic year. The maximum to be borrowed for undergraduate study is $12,500; the maximum for graduate study is $25,000, including any amount borrowed for undergraduate study.
4. ELF—Emergency Loan Fund. Short-term loans are available to students whose financial need is modest and temporary. A full-time student may borrow a maximum of $50 for up to 30 days. A nominal interest rate is charged.

Grants

1. PELL Grant—The Pell Grant program makes funds available to eligible needy students attending post-secondary institutions. To be eligible for the Pell Grant, students must be working toward their first baccalaureate degree. Need is determined from the CSS "Financial Aid Form" (FAF).

2. SEOG—Supplemental Educational Opportunity Grant. The Supplemental Educational Opportunity Grant program is similar to the Pell Grant and can provide additional assistance to needy students. Only undergraduates are eligible. SEOG awards range between $200 and $2,000 per year. Need is determined from the CSS "Financial Aid Form" (FAF).
3. BIA—Bureau of Indian Affairs. The Bureau of Indian Affairs makes grants available to eligible full-time students. Applicants must be at least one-fourth Alaskan Native or American Indian. For further information, contact the local BIA area office or Regional Corporation.

Graduate Assistantships

Graduate assistantships are awarded in the spring for the following academic year.

Minimum qualifications for appointment are graduate with a bachelor's degree from college or university of recognized standing with a grade point average of 3.0 or higher and admission to a graduate program at the University of Alaska, Anchorage. Foreign students whose native language is not English must demonstrate proficiency in English in the Test of English as a Foreign Language (TOEFL) with a score of at least 600 and in the Test of Spoken English with a score of at least 190-220. Graduate assistants are assigned responsibilities requiring 20 hours a week and receive stipends of varying yearly amounts from $6164-$7083. In addition, 16 two semester tuition waivers are available. For additional information and application forms, contact the Office of Academic Affairs.

Tuition Waivers

Applicants must enroll full-time at UAA for the year of the award. The award of the tuition waivers is based on consideration of student academic or creative merit, University and community involvement and strength of references. Preference will be given to out-of-state students according to Board of Regents' policy. Students apply in April for the following academic year.

1. Submit tuition waiver applications to the Office of Admissions and Financial Aid, University of Alaska, Anchorage, 3211 Providence Drive, Anchorage, Alaska 99508.
2. Provide cumulative official transcripts from all colleges and universities previously attended.
3. Submit three current letters of recommendation which would attest to academic excellence and talent.

Scholarships

Students interested in applying for scholarships should contact the Office of Admissions and Financial Aid for information and applications. Below is a list of scholarships available; the Office posts deadlines for applications, details concerning

eligibility, and information about new scholarships in a scholarship notebook which is available for review at the Office of Admissions and Financial Aid.

Agnes Umbs Memorial (Garden Club) Scholarship
Alaskan of the Year Scholarship
Alaska Magazine Natural Resources Study Award
Alaska Nurses Association Scholarship
Alaska Peace Officers Association Scholarship
Alaska Press Club Scholarship
Alaska State Medical Association Scholarship
Alaska State Retired Teachers Scholarship
Alice "Muff" MeWhirter Award
Alice Wilson Memorial Scholarship
American Institute of Certified Public Accountants Scholarship
American Guild of Organists Scholarship
American Water Works Association Scholarship
AMOCO-AHTNA Scholarship
Anchorage Amateur Radio Club Scholarship
Anchorage Business and Professional Womens' Club Scholarship
Angus Gavin Memorial Migratory Bird Research Fund
Art Meiser Scholarship
Chugach Gem and Mineral Society, Inc. Scholarship
Cook Inlet Region, Inc. Scholarship
Chevron, Inc. Scholarship
David K. Nicoli Scholarship
Epidemiology and Preventive Medicine Scholarship
Fort Richardson Officer's Wives Scholarship
Haglebarger Fund Scholarship
Indian Health Service Scholarship
James Howard Estelle Memorial Fund Scholarship
Kris Knudson Memorial Scholarship
Lanoga Corporation Scholarship
Laventhol and Horwath Scholarship
Mable H. Crawford Memorial Scholarship
March of Dimes Scholarship
Mike Ardaw Scholarship
Mark Arlen Hill Memorial Scholarship
Mental Health Traineeship
National Association of Accountants Scholarship
National Bank of Alaska Scholarship
National Federation of the Blind Scholarship
National Science Foundation Graduate Research Fellowship
Nick Begich Scholarship Intern Award
Nick Grey Memorial Scholarship
Nordic Ski Club of Anchorage Scholarship
Pedro Bay Scholarship

Petroleum Accountants Society Scholarship
President's Committee on Mental Retardation Scholarship
Prof. Secretaries International-Billikin Chapter Scholarship
Purchasing Mgmt. Assoc. of Alaska-Robert V. Balch Scholarship
Roy Pederson Memorial Scholarship
SAUAA - Fred Cromer Memorial Scholarship
Soroptimist International of Anchorage Scholarship
Seagram Distillers of Alaska Scholarship
University of Alaska Foundation Scholarship
University of Alaska, Anchorage Out-of-State Tuition Waivers
Virgil Knight Memorial Scholarship
VA Health Professions Scholarship

Contact the Office of Admissions and Financial Aid for additional information about scholarships.

Employment

1. CWSP—College Work-Study Program. The College Work-Study Program provides jobs for eligible students who have need (based on the FAF) and who wish to earn a part of their educational expenses. The program arranges for jobs on or off campus with public or private non-profit agencies. Students awarded CWSP may average twenty hours of work and week during the semester. Maximum wages depend on the job and the student's qualifications. Most salaries are comparable with off-campus part-time employment.
2. Other Employment. Students not eligible for the College Work-Study Program who desire assistance in securing part-time employment should contact the Office of Career Counseling.

Student Government

The Student Association of the University of Alaska, Anchorage (SAUAA) is a student congress of elected representatives empowered to act according to a recognized constitution and bylaws. All students who are registered for three or more credits, are assessed the student activity fee and are members of SAUAA.

The student activity fee, as administered by student government, provides funding for various student activity programs such as films, lectures, concerts, dances, and special events. The student newspaper, radio station, and recognized student organizations also receive funding from student government. All SAUAA members are entitled to participate in these activities at little or no charge.

SAUAA encourages all students to participate in its programs and services. SAUAA offices in the Campus Center can provide additional information.

Athletics

Nicknamed the Seawolves, the University's athletic teams compete as members of the National Collegiate Athletic Association (NCAA) Division II. In addition, the

Seawolves are members of two conferences—the Great Northwest Conference for men's basketball and the Continental Divide Conference for women's sports.

More than 125 student athletes represent UAA in intercollegiate competition in the following sports—women's volleyball, men's and women's cross-country running, ice hockey, men's and women's basketball, men's and women's skiing, women's gymnastics, swimming, and riflery. Seawolf teams regularly rank high in their respective conferences and divisions and have produced many All-America performers. Any eligible full-time UAA student may try out for a team by contacting the appropriate coach.

As part of its commitment to athletics, the University sponsors two of the most prestigious tournaments in the nation. Around Thanksgiving time each year, UAA hosts the Great Alaska Shootout men's basketball tournament. Its eight-team field is dominated annually by some of the best NCAA Division I teams in the nation and its list of past, present, and future participants reads like a Who's Who in college basketball. In February each year UAA sponsors the Northern Lights Invitational women's basketball tournament. Like the Shootout, the NLI perennially assembles outstanding Division I women's basketball teams from across the nation.

The University's athletes train and compete in some of the finest facilities anywhere. Headquarters for the Seawolf program is the multipurpose Sports Center on campus. In addition to serving as training and competition home for most all UAA regular-season events, the Sports Center houses all athletic staff offices. The Great Alaska Shootout, regular-season hockey games and other special events are staged in the beautiful Sullivan Arena in downtown Anchorage. Completed in 1983, the municipally-owned structure can seat up to 8,000 fans. University ski teams train and compete on the challenging runs of Mount Alyeska, 40 miles south of the city, as well as the nearly 125 miles of well-groomed cross-country trails in the Anchorage area.

Recreation, Intramurals and Club Sports

The University Sports Center provides recreational opportunities to all students, faculty, and staff on the UAA campus. The Sports Center houses a gym, pool, ice rink, weightroom, racquetball and squash courts, track, and locker rooms with saunas. Various hours are scheduled throughout the day for such activities as open and lap swimming, volleyball, basketball, skating, and other recreational activities. UAA students need only present their current semester ID card to use the Sports Center during recreational periods.

The Intramural program sponsors leagues, contests and tournaments for both team and individual sports. Leagues in basketball, volleyball, hockey, and broomball are run each semester. Various tournaments in such sports as racquetball, swimming, running, and skiing are also offered. Students who are interested in competing in the intramural program should contact the office at the Sports Center.

Individuals with an interest in specific athletic areas may also form club sports in pursuit of recreational opportunities. Clubs have been formed for many different activities including softball, karate, cheerleading, ping pong, and weight lifting.

University Community Ministry

University Community Ministry is sponsored by twelve protestant denominations and works cooperatively with the Catholic Church to provide a campus ministry to the three post-secondary Anchorage campuses. David Fison has served as Campus Minister since 1979. The UAA/ACC office is located in the Campus Center next to the Pub. UCM seeks to be a religious presence on the campuses and is available for pastoral counseling, weddings, memorial services, guest lecturers for any class or campus organization, and a variety of other services. UCM annually sponsors programs including the Sacred Arts Competition and, during final exams, the Final Resting Place.

ADMISSIONS

Students are responsible for familiarity with University regulations and requirements.

Students must apply for admission to the University of Alaska, Anchorage as an UNDERGRADUATE, GRADUATE, or as a SPECIAL student in order to be eligible to enroll in course work, unless the course is offered for a period of three weeks or less.

HIGH SCHOOL PREPARATION

The following high school courses are recommended in preparation for admission to the following Schools and Colleges at UAA.

College or School	English	Math	Science	Foreign Language	Social Sciences	Arts	Computer Science
College of Arts and Sciences	4 yrs.	BA 3 yrs BS 4 yrs *	BA 2-3 yrs BS 3-4 yrs **	1-2 yrs †	2 yrs ††	1-2 yrs ‡	1-2 yrs
School of Business and Public Affairs	4 yrs	3 yrs 2 Algebra 1 Geom	3 yrs	Recom-mended	3 yrs 1 semester Economics		1 semester
School of Education	3 yrs	2 yrs through Algebra	1 yr		2 yrs 1 US Hist Other Soc Sci		Helpful
College of Nursing and Health Sciences	Yes	Algebra	Chemistry Anatomy & Physiology				
School of Engineering	3 yrs	2 Algebra ½ Trig	1 Physics 1 Chemistry				
School of Justice	3 yrs	Intermed. Algebra			History Other Soc Sci		Yes

* = BA = emphases on Algebra I and II, Trigonometry, Geometry, Analysis. BS = emphases on Algebra, I and II, Trigonometry, Geometry, Analysis.

** = BA = emphases in Biology, Chemistry, Physics, Geology and Earth Science. BS = emphases in Biology, Chemistry, Physics.

† = Suggested Languages—German, Russian, Latin, Japanese, French, Spanish, Chinese and Native Languages.

†† = Emphases on World History, U.S. History, comparative political theory, current events, geography, cultural anthropology and/or pre-historic archaeology.

‡ = Basic and fundamental courses in Music and Art with more advanced courses dependent upon student's particular interest.

UNDERGRADUATE ADMISSION

REGULAR

A regular student is one who is seeking a baccalaureate degree from the University of Alaska, Anchorage or who has completed more than 30 semester college credits including transfer credit.

FRESHMAN REGULAR STUDENTS

To qualify for admission as a freshman in a baccalaureate program a person must have graduated from an accredited high school with a grade point average of 2.5 ("C+") or higher and have submitted scores on the American College Testing Program (ACT) or Scholastic Aptitude Test (SAT). The grade point average, high school class standing, and test scores are combined to determine the applicant's admissibility.

A student who has been awarded a high school diploma on the basis of the General Educational Development Test or other tests, and who has not completed any previous college work, may be admitted on probation. After completion of not fewer than 30 semester credits at UAA with at least a 2.0 ("C") grade point average, probationary status will be removed.

TRANSFER REGULAR STUDENTS

Generally, transfer applicants who have attended other accredited institutions are eligible for admission provided they have a 2.0 ("C") grade point average in their previous college work and were in good academic standing at the institutions previously attended. Applicants desiring to enter some majors may be required to present higher grade point averages and evidence of completion of background courses before admission can be granted.

Transfer students with fewer than 30 semester credits are required to submit official high school transcripts, official transcripts of all work completed at other institutions, and official ACT or SAT scores.

RETURNING REGULAR STUDENTS

Former students who have not been in attendance for two consecutive semesters or longer (excluding summer sessions) must reapply for admission. The application fee is required from those returning students who 1) have been dismissed from the University and are applying for readmission; 2) have attended another college or university since last attending the University of Alaska, Anchorage (excluding summer sessions); 3) are applying for admission to a different degree program.

How to Apply for Undergraduate Admission

APPLICATION FOR ADMISSION FORM

Complete all portions of the application for admission form and return it to the Office of Admissions and Financial Aid, University of Alaska, Anchorage, 3211 Providence Drive, Anchorage, Alaska 99508. Improperly completed forms may delay or disqualify the admission process. Applications for admission and all supporting documents must be submitted not later than May 1 for the Fall semester, October 1 for the Spring semester, and April 1 for the Summer session. Applications received after these dates will be processed if time permits and if space is available.

APPLICATION FEE

A check or money order for $30 must be included with the application form at the time it is submitted (please do not send cash). The application fee is non-refundable.

An application form submitted without an application fee will not be processed until the fee is received. An additional non-refundable fee of $25 will be charged for applications received after the deadline.

TRANSCRIPTS

Applicants who have never enrolled in any college or university must provide official high school transcripts. The high school should forward the completed Secondary School Record to the Office of Admissions and Financial Aid. This transcript is not acceptable if submitted directly to the University by the applicant.

Applicants who have attended other colleges and/or universities are responsible for requesting that official transcripts from each college or university attended be sent directly to the Office of Admissions and Financial Aid. Returning students who have attended another college or university since last attending the University of Alaska must have official transcripts sent directly to the Office of Admissions and Financial Aid.

Students who have attended foreign institutions and plan to transfer these credits to UAA will need to provide an official statement of educational equivalency from a recommended credentials evaluation service. Applications for Credentials Evaluation are available from the Office of Records and Student Information. The fee depends upon the type and complexity of the evaluation.

Transfer applicants with less than 30 semester credits are required to submit high school transcripts as well as college transcripts. Such applicants should follow the instructions given above for having official transcripts from high school or other colleges and/or universities sent to the University of Alaska, Anchorage.

OFFICIAL TRANSCRIPTS OF CREDIT EARNED AT OTHER INSTITUTIONS, HIGH SCHOOL TRANSCRIPTS AND OTHER SUPPORTING DOCUMENTS THAT HAVE BEEN PRESENTED FOR ADMISSION OR EVALUATION OF CREDIT BECOME THE PROPERTY OF THE UNIVERSITY AND ARE NOT REISSUED OR COPIED FOR DISTRIBUTION.

TRANSCRIPTS WILL NOT BE ACCEPTED IF SUBMITTED DIRECTLY BY THE APPLICANTS.

SOCIAL SECURITY NUMBER

The social security number is used as the permanent identification number on the student's record. Students who do not have a social security number should apply for one as soon as possible and include the number on the application for admission.

ACT OR SAT TESTS

Results from the test prepared by the American College Testing Program or the Scholastic Aptitude Test are required for all entering freshman and transfer students with less than 30 semester credits. Test scores must be sent form ACT or SAT offices directly to the Office of Admissions and Financial Aid. Scores will not be accepted if submitted directly by the applicant. Test results must be on file with the Office of Admissions and Financial Aid before final acceptance can be granted. PREREQUI-

SITE FOR ENGLISH 111, METHODS OF WRITTEN COMMUNICATION: A SCORE OF 35 OR ABOVE ON THE SAT TEST OF STANDARD WRITTEN ENGLISH; OR A SCORE OF 14 OR ABOVE ON THE ACT ENGLISH USAGE TEST.

CONDITIONAL AND FINAL ACCEPTANCE

Qualified applicants can be accepted for admission while currently enrolled in their last semester of high school or at another college. However, the acceptance is conditional upon receipt of ACT or SAT scores and official transcripts indicating the satisfactory completion of work in progress at the time of acceptance and, in the case of high school seniors, the completion of graduation requirements.

Final acceptance to the University for the purpose of earning academic credit becomes complete only when all credentials have been received and accepted by the Office of Admissions and Financial Aid.

If the applicant qualifies for admission, a notice of acceptance will be issued by the Office of Admissions and Financial Aid.

Transfer of Credit

Credit accepted for transfer to the University of Alaska, Anchorage which has been earned at other accredited institutions, through military educational experiences, correspondence, or other units of the University of Alaska statewide system shall be considered as transfer credit. Such credit is not considered Residence Credit. Where possible, transfer credit will be equated with University of Alaska, Anchorage courses. Transfer students must fulfill the General University Requirements, the General Education Degree Requirements, and the Major Program Requirements.

Effective with the fall semester of the 1988-89 academic year, all credits (transfer or resident) used to satisfy General University Requirements and General Education Degree Requirements and Electives must have been completed within fifteen (15) years before the completion of any baccalaureate degree awarded by UAA.

All credits (transfer or resident) used to satisfy Major Program Requirements and if applicable, Minor Requirements must have been completed within eight (8) years before the completion of any baccalaureate degree awarded by UAA.

The following regulations apply to transfer credit:

1. An evaluation of transfer credit is completed only after a student has been officially admitted.
2. Only credits earned with grades of "C" (2.0) or higher at other institutions fully accredited by one of the five regional accrediting associations will be considered for transfer.
3. Acceptance of transfer credit towards degree programs is based upon departmental approval.
4. A maximum of 72 semester credits will be accepted from junior and community colleges, cumulative from within and outside the University of Alaska system.

5. A maximum of 32 semester credits completed by correspondence may be applied to a baccalaureate degree.
6. A student in good standing may transfer credits from other UA units to UAA under the following conditions:
   a. The four-year institutions of the University of Alaska (UAA, UAF, or UAJ) will accept all course transfer credit at the 100 level and above from University of Alaska community colleges and rural education centers of students with a cumulative G.P.A. of 2.0 and above (up to a maximum of 72 semester hours for community college course credit transfer to a university center).
   b. The evaluation will follow the recommendations that appear in the Alaska Transfer Guide.
   c. Credit from UAF, UAJ, and upper-division credit through CCREE will be accepted for full credit.
7. Eight elective credits may be awarded by transfer to students having completed at least one calendar year of military service. In addition, credit also may be transferred from formal service schools as recommended in the Guide to the Evaluation of Educational Experiences in the Armed Services, prepared by the American Council on Education. A maximum of 30 credits may be awarded for military service and/or formal service schooling. The completion of course work through the Community College of the Air Force is considered military credit and is subject to the same restrictions.
8. Transfer credit is not included in University of Alaska, Anchorage grade point computation (except in determination of student's eligibility for graduation with honors).
9. Life/work experience will not be accepted as academic credit since the student has the option of credit by examination.
10. Evaluation of Federal Aviation Administration (FAA) transcripts will be completed after the student has been officially admitted.
11. Students who have attended foreign institutions and plan to transfer these credits to UAA will need to provide an official statement of education equivalency from a recommended credentials evaluation service. Applications for Credentials Evaluation are available from the Office of Admissions and Financial Aid. The fee depends upon the type and complexity of the evaluation.

The University of Alaska, Anchorage reserves the right to reject work of doubtful quality or to require an examination before credit is allowed.

Probationary Undergraduate Admission

Probationary admission to UAA may be granted to 1) high school graduates with a high school grade point average of at least 2.00; or 2) college transfer students with a grade point average of at least 1.75. However, the probationary student must have from his department an admission recommendation accompanied by a full-time program of study that has been approved by the dean of his college or school.

Probationary admission status will be removed after one semester if the student earns a cumulative grade point average of 2.00. If he/she does not earn a cumulative grade point average of 2.00, he/she will be dismissed from the University (Refer to Probation and Dismissal).

SPECIAL ADMISSION

A special student is one not seeking a degree or a certificate from UAA. Such a student must apply for admission to the University as a special student but need not meet the admission requirements for regular students. Special students will be admitted without class standing and may not enroll for more than eight credits in semester. Special students are subject to the academic regulations of the University. Permission to enroll as a special student is granted for one semester at a time and implies no commitment on the part of the University regarding later admission to a degree program. **Special students are required to complete a Special Application for Admission each semester they plan to attend.** Unless the student has already earned a baccalaureate degree, or is classified as temporary, a special student may not earn more than 30 semester credits at UAA.

TEMPORARY SPECIAL STUDENTS

A temporary special student is a documented candidate for a degree at another university and wishes to earn credits at UAA for transfer. Students classified as temporary special students are not charged the application fee. Temporary status is approved for one semester only.

POST-BACCALAUREATE SPECIAL STUDENTS

A post-baccalaureate special student has earned a baccalaureate degree and is not seeking an advanced graduate degree. A student who wishes to enroll in courses as a post-baccalaureate student must apply for special admission and pay the application fee. A post-baccalaureate student may not enroll for more more than eight credits in a semester.

HIGH SCHOOL SPECIAL STUDENTS

A qualified high school student of advanced standing and ability may be permitted to enroll in University courses while attending high school. To register, the student must apply for admission to the University as a special student with high school status and must present the written recommendation of the high school principal or counselor, written parental approval, and an official transcript indicating a minimum grade point average of 3.0 for seniors and 3.5 for juniors. Seniors may enroll for a maximum of eight credits, juniors for a maximum of three credits each semester. Special high school students are not charged the application fee.

How to Apply for Special Admission

APPLICATION FOR SPECIAL ADMISSION

Complete all portions of the Application for Special Admission form, and return it to the Office of Admissions and Financial Aid, University of Alaska, Anchorage, 3211

Providence Drive, Anchorage, Alaska 99508. Improperly completed forms may delay or disqualify the admission process.

Special student applications will be accepted on a continuous basis. Special students are scheduled to register on the final day of regular registration. Special students are not eligible to participate in early registration.

APPLICATION FEE

A check or money order for $10 must be included with the special application form at the time it is submitted (please do not send cash). The application fee is non-refundable. Except as indicated above for temporary and high school students, a special application form submitted without an application fee will not be processed until the fee is received.

FOREIGN STUDENT ADMISSION

The University of Alaska, Anchorage welcomes qualified students from other countries. To be eligible for admission such students must meet all university admission requirements for undergraduate, graduate or special students. They must give evidence of ability to succeed in university study and demonstrate competence in use of the English language.

The Test of English as a Foreign Language (TOEFL) is required of students from countries in which English is not the native language.

Foreign student applications are evaluated on an individual basis. Admission or denial will be based on the total evidence indicating the student's potential for success in an academic program at UAA.

Students who have attended foreign institutions and plan to transfer their credits to UAA will need to provide an official statement of educational equivalency from a recommended credentials evaluation service. Applications for Credentials Evaluation are available from the Office of Admissions and Financial Aid. The fee depends upon the type and complexity of the evaluation.

Non-Immigrant Student Status (F-1)

Foreign students who wish to be issued the United States Department of Justice Immigration and Naturalization Service Certificate of Eligibility for Non-Immigrant Students (Form 1-20A) must be officially accepted by the University of Alaska, Anchorage as **undergraduate** or **graduate** students. They must submit a satisfactory score on the Test of English as a Foreign Language (TOEFL) and documentation of financial status that they are able to pay all expenses incurred while in attendance at the University of Alaska, Anchorage.

Non-immigrant students must meet all admission requirements and maintain a full-time student status.

GRADUATE ADMISSION

The Vice Chancellor for Academic Affairs, or a designee officially appointed by the Chancellor, has responsibility for the overall framework, development, administration, supervision, coordination, and improvement of graduate programs and organized research programs offered through the schools and colleges. The Graduate Council, composed of faculty and deans of the schools and colleges with graduate programs, advises the Vice Chancellor on graduate policies, courses, programs, and administrative matters. The Vice Chancellor delegates a portion of his/her responsibility through the Deans of the schools and colleges in which graduate programs are offered to at least three specific members of the faculty who are appointed by the Dean to serve as a student's Graduate Study Committee. The Dean may approve of additional committee members who are not regularly appointed UAA faculty but who have appropriate professional qualifications and who have been appointed as UAA affiliate faculty.

A Graduate Advisor is a faculty member assigned by the Dean, when a student is admitted to graduate study, to assist the student with his/her course of study. The Graduate Advisor shall also serve as chairperson for the student's Graduate Study Committee.

Who May Apply for Admission to Graduate Study

Graduates of accredited institutions who hold bachelor's degrees and who maintained at least a "B" (3.0) average in their undergraduate majors may apply for admission to graduate study of UAA. Various programs may have additional requirements. Refer to the individual program described in this catalog for additional requirements.

Graduates who hold bachelor's degrees but who have not maintained a "B" (3.0) average may be required to take a graduate admission test approved by the school or college. If test scores indicate that students will be successful in graduate study, students may be considered for admission.

Other prospective students who meet admission criteria recommended by national accrediting bodies or agencies for a specific program may be considered for admission to graduate study at UAA.

Students who expect to complete requirements for a bachelor's degree from an accredited institution shortly and have a "B" (3.0) average or higher in their majors or otherwise demonstrate abilities to successfully pursue graduate study may be considered for admission.

Students who have completed a baccalaureate degree from a foreign institution will need to provide an official statement of educational equivalency from a recommended credentials evaluations service. Applications for Credentials Evaluation are available from the Office of Admissions and Financial Aid. The fee depends upon the type and complexity of the evaluation. The Test of English as a Foreign Language

(TOEFL) is required of students from countries in which English is not the native language.

How to Apply for Admission to Graduate Study

APPLICATION

Obtain a Graduate Application for Admission form from the Office of Admissions and Financial Aid, University of Alaska, Anchorage, 3211 Providence Drive, Anchorage, Alaska 99508. Improperly completed forms may delay or disqualify the admission process. Registration for graduate level courses does not imply admission to a graduate degree program.

DEADLINES

The Office of Admissions and Financial Aid receives Graduate Applications for Admission until May 1 for the Fall semester and October 1 for the Spring semester for all programs except as follows:

Applications for the Master of Science degree in Counseling Psychology are accepted until March 1 for the next academic year.

Applications for the Master of Science degree in Nursing are accepted until March 1 for the Fall semester and October 1 for the Spring semester.

Applications received after these dates are considered late and require a $25 non-refundable late processing fee in addition to the $40 application fee.

TRANSCRIPTS

Request official transcripts of all college credits earned be sent to the Office of Admissions and Financial Aid in support of your application. Transcripts must be sent directly from the institution to UAA. Transcripts submitted by applicants will not be accepted.

TEST SCORES

Test scores for the Graduate Record Examination (GRE), the Miller Analogies Test (MAT), the Graduate Management Admission Test (GMAT), or other achievement or aptitude tests may be required for admission to some programs. Refer to the specific program for information on test requirements.

Request that the testing agency send official scores directly to the Office of Admissions and Financial Aid.

OTHER SUPPORTING DOCUMENTS

Some graduate programs have other requirements for admission, such as letters of recommendation. Students are encouraged to discuss admission requirements with the program faculty.

FEES

The application fee for admission to graduate study is $40 (non-refundable), payable when the application is submitted. Applications received after the deadline dates are considered late, and require a $25 non-refundable late processing fee in addition to the $40 application fee. Post-Baccalaureate Special Students pay a $10 (non-refundable) application fee.

Return the completed Graduate Application form, along with any other documents required and your application fee, to the University of Alaska, Anchorage, Office of Admissions and Financial Aid, 3211 Providence Drive, Anchorage, Alaska 99508. **All transcripts and supporting documentation submitted for admission become the property of the University of Alaska, Anchorage and are not reissued or copied for distribution.**

Acceptance to Graduate Study

The Office of Admissions and Financial Aid processes all Graduate Applications for Admission, forwarding them with supporting materials to the office of the dean of the school or college offering the program.

The dean and the faculty of the program determine whether or not the applicants have had adequate preparation for graduate study.

NOTICES OF ACCEPTANCE

Applicants who qualify for admission to graduate study will receive a notice of acceptance from the Office of Admissions and Financial Aid.

Notices of acceptance permit the student to enroll in courses in an approved degree program but do not establish his or her candidacy for a graduate degree.

CONDITIONAL ADMISSION

The dean recommends conditional admission for applicants who do not qualify but show good potential for success in graduate study. The Vice Chancellor for Academic Affairs or his designee must approve conditional admission, which is not for more than one academic year (two consecutive semesters, excluding summer session).

How to Make Changes after Being Accepted to Graduate Study

CHANGE TO NEW DEGREE PROGRAM

Students who wish to change from one graduate program to another must apply for admission to the new program through the Office of Admissions and Financial Aid. Any additional materials required by the new program must also be submitted.

CHANGE OF EMPHASIS IN ORIGINAL PROGRAM

A revised graduate program plan must be submitted to the Office of Records and Student Information by the graduate study committee chairperson for students who change their area of emphasis.

CHANGE TO ACCOMMODATE A SECOND MASTER'S DEGREE

Students wishing to complete a second master's degree must submit to the Office of Admissions and Financial Aid an Application for Admission, with the appropriate fee and all supporting documents required by the program.

CHANGE IN NAME AND/OR ADDRESS

Students changing their name and/or address must complete the appropriate form in the Office of Records and Student Information.

Advancement to Candidacy for a Master's Degree

Neither registration for graduate level courses nor admission to graduate study constitutes a student's candidacy for a master's degree. Graduate students who are eligible to apply for advancement to candidacy for a degree should consult their graduate advisors about program requirements and a graduate study plan. All specific graduate degree requirements are identified in the student's graduate study plan.

Graduate students whose academic work is in good standing should apply through their graduate advisor for advancement to candidacy for a master's degree when they have satisfied the following requirements:

1. Completed at least nine (9) credits of graduate study at the University of Alaska, Anchorage.
2. Demonstrated competence in use of research tools and a reading ability of a foreign language, if required.
3. Met specific prerequisites for the degree they seek.
4. Received approval by their graduate study committee of the thesis topic, if a thesis is required.
5. Received graduate study committee approval of a final graduate study plan.

Advancement to candidacy formally establishes each student's specific graduate degree requirements as defined in his or her graduate study plan. Thus, it is in the interest of both the students and the advising faculty for the students to apply for candidacy as soon as they are qualified.

Students must apply for advancement to candidacy not later than the third week of the semester in which they will complete eighteen (18) credits of graduate study at the University of Alaska, Anchorage.

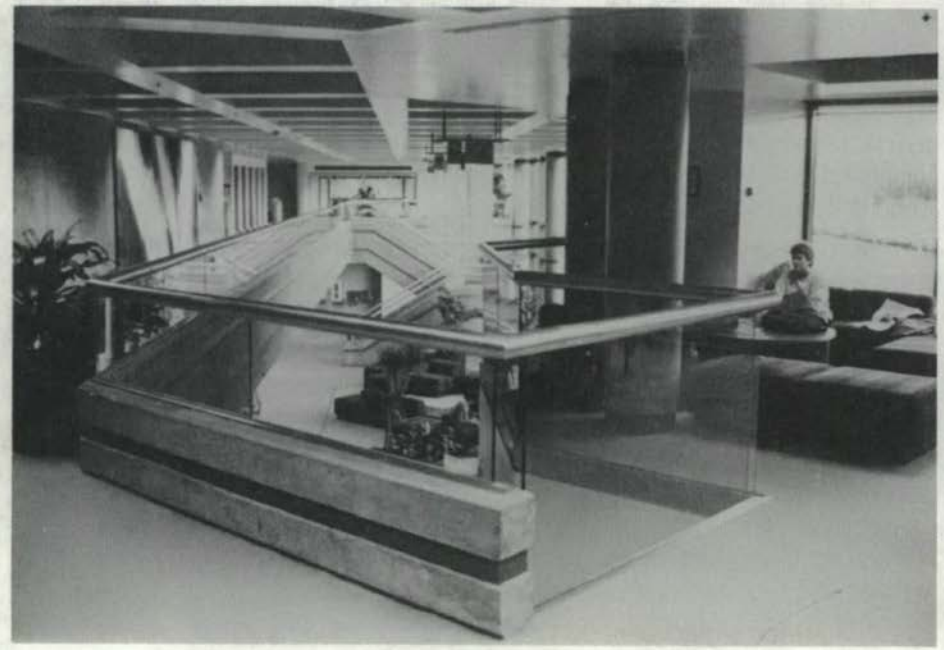
Graduate Study Committees

The dean of the school or college offering the program appoints a graduate study committee for each graduate student when the student applies for advancement to candidacy through his/her graduate advisor. The committee consists of at least three University of Alaska, Anchorage faculty members. With the dean's approval, others may be appointed who are not University of Alaska, Anchorage faculty members but who have appropriate professional credentials.

The student's graduate advisor serves as committee chairperson.

The responsibilities of the graduate study committee are as follows:

1. Review student's graduate study plan, making sure it includes all courses required for the degree; a thesis, if required; special program requirements; and arrangements to remove any deficiencies students may have in their records.
2. Approve the graduate study plan at the time of advancement to candidacy.
3. Supervise the student's progress through timely completion of all requirements in the graduate study plan.
4. Supervise the timely submission of all documentation to the Office of Records and Student Information certifying the student's progress toward completion of requirements.
5. Approve temporary leaves of absence.
6. Review and approve any changes in the graduate study plan.



REGISTRATION POLICIES & PROCEDURES

Persons eligible for enrollment at the University of Alaska, Anchorage must be admitted and complete registration according to the prescribed procedures and pay fees as determined by the University fee schedule in order to be eligible to attend classes and to earn credit. The early registration system permits continuing students to develop and plan their course schedules months before the beginning of a semester.

The University is unable to guarantee that a particular course listed in this catalog will be offered during a given semester. The class schedule published and distributed prior to each semester/session gives the time and place of registration and lists the courses available.

Registration for short courses, workshops, seminars and conferences, whether non-credit or continuing education units, and other classes that are not part of the regular academic semester/session class schedule, will be arranged through the Office of Continuing Education.

Whether or not a student has been attending class from the beginning of the semester/session, registration will not be accepted after the deadline for late registration.

Auditors

An auditor is a student who enrolls for information instruction only; no credit is granted for audited courses. Submission of papers for correction and grading and participation in laboratory experiences are at the discretion of the instructor. The instructor may request that the audit designation be removed from the transcript if the student fails to comply with the agreed terms.

Auditors are required to register and pay the tuition and/or fees. The signature of the instructor and/or dean is required for registration as an auditor.

Students who have audited a class may register in that class for academic credit the following semester, however, students may not request credit via local credit-by-examination for that class until the following academic year.

Cancellation of Classes

The University of Alaska, Anchorage reserves the right to cancel or combine classes, to change the time and date or place of meeting, or to make other revisions in class offerings which may become necessary without incurring obligation. The University may discontinue a class at any time if attendance falls below expected levels.

Course Numbering System

Each course offered by the University is identified by an alphabetic designator and a three-digit course number. The designator commonly abbreviates the name of a discipline or department (Engl for English, etc.). The first numeral of the three-digit course number indicates the year in which the course is ordinarily taken. For example, Engl 111 is given for first-year students and Engl 342 is given for third-year students.

Course Numbers

001-049—intended for short courses, workshops, seminars and conferences whether non-credit or for continuing education units.

050-099—intended for pre-college; not applicable to graduation requirements for baccalaureate degrees, master's degrees,or certificates offered by UAA.

100-199—freshman level courses; these courses may be applied to graduation requirements for the baccalaureate degree.

200-299—sophomore level courses; these courses may be applied to graduation requirements for the baccalaureate degree.

300-399—junior level courses; these courses may be applied to graduation requirements for the baccalaureate degree. These courses may also be applied to the graduation requirements for some graduate (master's) degrees, **with prior approval of the department**. No one course may be applied to both a baccalaureate and a graduate degree by the same student.

400-499—senior level courses; these courses may be applied to graduation requirements for the baccalaureate degree. These courses may also be applied to the graduation requirements for some graduate (master's) degrees, **with prior approval of the department**. No one course may be applied to both a baccalaureate and a graduate degree by the same student.

500-599—professional development courses; these courses may not be applied to any degree requirements (even by petition) and are restricted to the "Pass/Fail" grading designation.

600-699—graduate level courses; these courses may be used to meet graduation requirements for the graduate (master's) degree with the approval of the department. They may also be used to meet graduation requirements for the baccalaureate degree with an approved, before-the-fact petition. No one course may be applied to both a baccalaureate and a graduate degree by the same student.

The following numbers are reserved for specific types of courses:

-93—special topics courses
-96—unspecified directed study
-97—independent study
-98—individual research
-99—thesis

Contact Hours

The minimum contact minutes each semester is 750 minutes (including the final examination period). One contact hour is equal to 50 minutes. One academic credit represents satisfactory completion of 15 contact hours of lecture periods or 30 contact hours of seminar recitation periods or 45 contact hours of clinical or laboratory periods. Students are expected to complete 45-60 hours of work outside the classroom over the length of the semester. Courses scheduled for less than a full semester may not be offered for more than one credit each week.

The figures in parentheses following the course title indicate the number of lecture and laboratory hours the class must meet each week for one semester. For example, (2+3) indicates that a class has two contact hours of lecture and three contact hours of laboratory work each week.

The total amount of student time required to earn one credit of independent study, or specified, or unspecified directed study should conform to the standard for total time applied to traditional courses.

One continuing education unit (CEU) is granted for satisfactory completion of 10 contact hours of classroom instruction or 20 contact hours of laboratory or clinical instruction.

Overload

Students may register for a maximum of 19 credits during the fall and spring semesters, and a maximum of 14 credits during the summer session. Students wishing to enroll for a greater number of credits must have a GPA of at least a 2.75 for the previous two semesters and must submit an overload petition, signed by an advisor and dean, at registration. For study loads that include non-credit courses, the computation is based on equivalent credits.

Extended Registration

A graduate student must be registered for each semester/session in which he/she is actively working toward a degree. If not registered, the student must initiate an extended registration at the Office of Records and Student Information and pay the required fee. The deadline for extended registration is published in the class schedule each semester/session.

All students must be registered at the University of Alaska, Anchorage the semester in which they plan to graduate. Registration must be prior to the close of late registration.

Required Signatures

For some courses, including all courses with permission of the instructor as a prerequisite, students will be required to obtain a signature from the instructor before completing registration.

Beginning with the first day of instruction all students are required to obtain a signature for each course late registered, added, dropped, or withdrawn.

Registration by Proxy

Students unable to appear in person for registration who plan to have a proxy register for them must provide that person with a signed Registration by Proxy Form. Proxy forms are available from the Office of Records and Student Information. The proxy must register in accordance with the policies and calendar governing registration. Registrations by proxy will not be accepted without written permission of the student.

Late Registration

Students will be permitted to late register through the end of the third week of the semester (fall/spring). Deadline dates are published in the class schedule and the academic calendar in the front of the catalog.

Students late registering will be charged a late registration fee of $25. The fee is refundable only in the event all classes for which the student registered are cancelled.

The instructor's signature is required for each course late registered.

Late registration dates for the summer sessions are proportioned in accordance with the length of the class. Specific dates are published in the class schedule.

Registration Changes, Add/Drop, and Withdrawal

Refer to the Academic Calendar for deadlines.

Students are expected to complete courses for which they register and to register only for the sections they intend to attend. If a change in a student's class schedule becomes necessary, courses may be changed according to the following:

Add/Drop:

DESIRED CHANGE	FIRST THREE WEEKS OF SEMESTER	FOURTH THROUGH SEVENTH WEEK OF SEM.	AFTER SEVENTH WEEK
ADD COURSE SECTION	Signature required. Add form filed in Office of Records. $3.00 fee charged per course section.	Not permitted.	Not permitted.
DROP COURSE SECTION	Signature required. Drop form filed in Office of Records. Will not appear on student's permanent record. $3.00 fee charged per course section.	Not permitted.	Not permitted.

Withdrawal:

After the first three weeks of the semester, students may, on their own initiative, withdraw from a course or from the University through the seventh week of the

semester for semester length courses. All withdrawals must be officially processed by the student in the Office of Records. **Unless a student has officially withdrawn, a final grade of "F" will appear on his permanent record.**

The withdrawal deadline for courses less than a semester in length is at the midpoint of the course.

DESIRED CHANGE	FIRST THREE WEEKS OF SEMESTER	FOURTH THROUGH SEVENTH WEEK OF SEM.	AFTER SEVENTH WEEK
WITHDRAW FROM COURSE SECTION	Not permitted.	No signature required. Will appear on student's permanent record with grade of W. $3.00 fee charged per course section. Withdrawal form filed in Office of Records.	Not permitted.
TOTAL WITHDRAWAL FROM UNIVERSITY	No signature required. No fee charged. Will not appear on student's permanent record. Withdrawal form filed in Office of Records.	No signature required. No fee charged. Will appear on student's permanent record with grade of W. Withdrawal form filed in Office of Records.	Signature of Instructor and Dean required. No fee charged. Will appear on student's permanent record with a grade of W. Withdrawal form filed in Office of Records.

Changes in Registration:

DESIRED CHANGE	FIRST THREE WEEKS OF SEMESTER	FOURTH THROUGH SEVENTH WEEK OF SEM.	AFTER SEVENTH WEEK
CREDIT/NO CREDIT OPTION	No signature required. Form filed in Office of Records. No fee charged.	Not permitted.	Not permitted.
CREDIT TO AUDIT (VICE VERSA)	Instructor's signature required to audit. Form filed in Office of Records. $6.00 fee charged.	Instructor and Dean's signature required. Form filed in Office of Records. $6.00 fee charged.	Not permitted.

Any student making an adjustment to his original registration must show a copy of his registration and add/drop receipts at the time of the transaction.

FEES, CHARGES, TUITION

Residency for Purposes of Tuition

For purposes of non-resident tuition, a resident is any person who has been physically present in Alaska for one year (excepting only vacations or other absences for temporary purposes with intent to return) and who declares intention to remain in Alaska indefinitely. However, any person who, within one year, has declared himself or herself to be a resident of another state, voted in another state or done any other act inconsistent with Alaska residence shall be deemed a non-resident for purposes of non-resident tuition.

An unemancipated person under the age of 18 who has a parent or guardian who qualifies as an Alaska resident, as defined above, shall be deemed a resident. Otherwise, such unemancipated person under the age of 18 shall be deemed a non-resident for purposes of non-resident tuition.

A foreign student on an F-1 (non-immigrant student status) visa cannot become a resident because possession of a student visa is inconsistent with Alaska residence and is inconsistent with any declared intention to remain in Alaska indefinitely.

A foreign student on a permanent visa (permitting an indefinite stay in the United States) can qualify as a resident for purposes of tuition if the other elements of the conditions for residence are met.

Members of the military on active duty and their dependents, as well as residents of the Yukon Territory and the Northwest Territories will be considered residents for the purposes of determining tuition.

This definition of residency status is solely for the purposes of determining tuition at the University of Alaska, Anchorage. The requirements of the University may or may not be the same as requirements of other agencies in the State of Alaska.

Summary of Tuition

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.

Total Credit Hours	Resident Undergraduate	Non-resident Undergraduate	Resident Graduate*	Non-resident Graduate*
1	$ 40	$ 105	$ 75	$ 150
2	80	210	150	300
3	120	315	225	450
4	160	420	300	600
5	200	525	375	750
6	240	630	450	900
7	280	735	525	1050
8	320	840	600	1200
9	360	945	675	1350
10	400	1050	675	1350
11	440	1155	675	1350
12 or more	480	1260	675	1350

*For purposes of tuition, any course numbered above 499 is considered graduate.

NOTE: Courses which require the use of materials, supplies or services may have a fee in addition to the normal tuition. Other fees may be charged for administrative and/or instructional services. These fees are subject to approval by the Chancellor. The University reserves the right to change its fees at any time.

Summary of Other Fees

Add/Drop Fee (per course section) ..... $ 3
Admission Fee—Special (NON-REFUNDABLE) $10
Admission Fee—Undergraduate (NON-REFUNDABLE) $30
Admission Fee—Graduate (NON-REFUNDABLE) $40
Audit Fee ..... See explanation
Certification of Enrollment Fee ..... $ 2
Change of Major Fee ..... $ 5
Continuing Education Unit (per unit) $40
Credit by Examination Fee ..... See explanation
Duplication of Registration Receipt (per page) ..... $ 1
Graduate Extended Registration Fee $75
Graduation/Diploma Fee $20
Laboratory, Material, Other Fees ..... See explanation
Late Application for Admission Fee (NON-REFUNDABLE) $25
Late Registration (Flat Fee) $25
Music Fees ..... See explanation
Parking Fee (optional, NON-REFUNDABLE, per semester) $25
PE Class Fee ..... See explanation
Placement Fee ..... See explanation
Registration Fee ..... $ 5
Student Activity Fees (maximum, per semester) $38

Transcripts:
First copy, per request ..... $ 4
Additional copies, per request ..... $ 2

Fee Explanations

All resident and non-resident tuition and student activity fees are approved by the Board of Regents of the University of Alaska. The University reserves the right to change the tuition/fees at any time.

Audit Fee. Fees apply to students auditing any course in the same manner as those enrolled for credit.

Add/Drop Fee. An add/drop fee of $3 is charged for each course section added or dropped. Please note that the $3 fee applies to both lecture and lab sections; therefore, the fee for adding or dropping a lecture section and its accompanying lab section costs a total of $6. The fee will not be levied when changes are necessitated by University cancellation of courses or University rescheduling of classes.

Credit-by-Examination Fee. A non-refundable $15 fee is charged for each examination. For more than three credits, an additional charge of $1 per credit is charged.

Graduate Extended Registration Fee. A graduate student must be registered for each semester/session in which he/she is actively working toward a degree. If no courses are being taken, the student must initiate an extended registration. A fee of $75 must be paid when registering.

Graduation/Diploma Fee. This $20 non-refundable fee accompanies the Application for Diploma which must be submitted to the Office of Records no later than the deadline date published in the class schedule and catalog. Students not completing their degree requirements, after filing their Application for Diploma, are required to re-apply for their diploma and pay the $20 fee.

Laboratory, Material, Other Fees. In addition to the standard tuition, laboratory, materials, or other fees are charged for some courses. These charges are listed in the class schedule.

Late Registration Fee. There is a deadline for registration each semester/session. Students who are allowed to register after that date pay a late registration fee of $25. This fee is refundable only in the event all classes for which the student registered are canceled.

Music Fees. Private music lesson fees are listed in the class schedule. Registration in private music lessons requires the signature of the Chairman of the Music Department.

Parking Fee. All areas on campus except for "Visitor Parking" and "Free Parking" require that a parking decal be appropriately displayed. Decals may be purchased for $25 per semester. Decal fees are non-refundable.

PE Class Fee. All students enrolling in PE classes for credit or non-credit, who do not pay the PE Facility Use Fee will be charged a $10.00 fee. If, after enrolling, the student adds courses that requires paying the Use Fee, no refund will be granted.

Placement Fee. If a student's credentials are not filed with the University's Placement Office before graduation, a $10 charge is made for one year of placement service. Thereafter, $5 is charged for each year the file is used. Students may use the Placement Office services free of charge prior to graduation.

Registration Fee. All regular undergraduate, graduate and special students registering for one or more credits at UAA will be charged a $5 registration fee. Students enrolling in any regular academic course delivered off campus will be required to pay the registration fee.

Student Activity Fee. Activity fees up to $38 per semester/session will be assessed to support student-related activities.

Payment of Fees

All charges, deposits, and fees for the semester/session are due at the time of registration. Students should be prepared to pay the full amount of charges when they register. Tuition and fee charges are subject to review and audit. Any University adjustment to an individual student's fee and tuition totals must be made with thirty days following the close of late registration or after any change in the student's schedule. The student will be notified of any such adjustment by mail. No refunds will be given for $1.00 or less. The University reserves the right to change its tuition/fees at any time.

Senior Citizen Waiver of Tuition

Alaska residents 60 years of age or older may enroll in any course offered by the University of Alaska, Anchorage for which they are properly qualified and for which space is available without tuition charges.

Fees, in addition to the normal tuition, such as lab, material, registration and non-credit are not included in the tuition waiver.

The student activity fees are optional and are not included in the tuition waiver.

All applicants for the senior citizen waiver must complete a Tuition Waiver Request form available at the time of registration.

Financial Obligations

The University of Alaska, Anchorage reserves the right to withhold transcripts, diplomas or final grade reports from students who have not paid all financial obligations to the institution. If a student is delinquent in payment of any amount due the University, registration for succeeding semesters may be withheld. The registration process is not complete until all tuition/fees due the University have been paid.

Refund Policy

Students dropping or withdrawing from courses, or students who are completely dropping/withdrawing from the University must officially do so by submitting a drop/withdrawal form at the Office of Records. Refunds will be processed by the Account-

ing Office according to the policies outlined below. Students must officially drop or withdraw from classes (including those canceled by the University) in order to qualify for a tuition refund.

1. Complete refund of both tuition and fees will be given when a drop is completed prior to the third day of the semester or in the event courses registered for are canceled by the University.
2. Ninety percent refund of tuition only will be given for drops completed on the third day of the semester and prior to the tenth day of the semester.
3. Fifty percent refund of tuition only will be given for drops/withdrawals completed on the tenth day of the semester and prior to the seventeenth day of the semester.
4. No refund will be given for withdrawals made on or after the seventeenth day of the semester.
5. Claim for a refund is processed automatically by the Accounting Office once the appropriate paperwork is completed by the student at the Office of Records. The date of drop/withdrawal, as indicated on the official Add/Drop Receipt, will determine the student's eligibility for a refund. Applications for refund may be refused unless they are made during the semester/session to which they apply. Refunds will not normally be processed until after the late registration period.
6. Students withdrawing as a result of disciplinary action forfeit all rights to a refund of any portion of their tuition and fees.
7. Student activity, laboratory, material, and other fees are only refundable if the drop is completed prior to the third day of the semester.
8. Personal hardship is not construed by the University as adequate justification for a refund not otherwise provided for in refund policies.
9. No refunds will be given for $1.00 or less.


1st ANNUAL
INTERCOLLEGIATE DANCE
FRIDAY
NOV 14th
GARY SLOANS TECHNO
BLUES BAND

ACADEMIC REGULATIONS

Students are responsible for familiarity with University regulations and requirements for graduation.

Academic Advising

The University of Alaska, Anchorage acknowledges that all students have the right to quality academic advising and that it has an obligation to ensure that academic advising is available to all students. The University encourages students to avail themselves of the academic advising program, but recognizes that the final responsibility to actively participate in the advising program rests with the individual student.

The University recognizes that academic success is promoted by close personal relationships between students and faculty. The student is encouraged to seek out information that will enable him or her to become well acquainted with the available options. Assignment of faculty advisors is made through the department of the student's major. All students who have specified a major degree program will be assigned a faculty advisor from the program. All students who are uncertain of a choice for a major will be assigned an interim faculty advisor in the College of Arts and Sciences or other schools or colleges.

Academic Petition

Any deviation from academic requirements and regulations must be approved by academic petition. A petition form, which requires the signatures of the student's advisor, department chairperson, and dean, may be obtained from the Office of Records or from the school or college offices. Petitions to waive General University Requirements must be processed through the appropriate dean; the final decision rests with the Vice Chancellor for Academic Affairs.

Academic Good Standing

UNDERGRADUATE:

A student is in good academic standing when he/she has a cumulative grade point average of 2.0 or higher and a grade point average of 2.0 or higher for the most recently completed semester. The grade point average is computed on credits earned at the University of Alaska, Anchorage only. Individual departments may establish additional criteria for good academic standing for students seeking degrees in these departments. First-semester students are presumed to be in good academic standing during the first semester unless the student has been admitted on probationary status.

GRADUATE:

Requirements for maintaining graduate status are as follows:

1. Graduate students must be registered during each semester/session in

which they are working toward a graduate degree. Temporary leaves of absence may be arranged with the approval of the graduate study committee.
2. Graduate students shall be placed on academic probation for a period not to exceed one academic semester if they do not maintain an overall grade point average of 3.0 in the major, or if, for reasons specified by the graduate study committee and the dean, they are not making satisfactory academic progress.
3. Any graduate student who cannot satisfy the requirement for removal of probation shall be dismissed from the University.
4. Any graduate student who is dismissed may not apply for admission to a graduate program for one calendar year from the date of dismissal.

Full-Time/Part-Time Status

An undergraduate student who registers for 12 or more semester credits will be classified as full-time. A graduate student enrolled in nine or more semester credits or equivalent will be classified as full-time.

SATISFACTORY PROGRESS FOR FULL-TIME STUDENTS

Full-Time Students: Undergraduate (graduate) students 1) must have earned 12 (9) or more semester credits at UAA for the most recently completed semester, or 2) must have earned 24 (18) or more semester credits during the 12 months previous to the semester in which the student is enrolled.

Students new to the University must be enrolled in no fewer than 12 (9) semester credits in their first semester, and no fewer than 20 (15) credits in their first two semesters.

Part-Time Students: A part-time student is considered to be making satisfactory progress when he/she earns at least fifty percent (50%) of all UAA credits attempted during the most recently completed semester.

Part-time students in their second or subsequent semester must also have cumulatively earned at least sixty-five percent (65%) of all UAA credits attempted.

Disclosure of Public Information

Under the Family Educational Rights and Privacy Act of 1974, students are entitled to review their records. Except for public information, no personally identifiable information will be disclosed to agencies off-campus without the written permission of the student. Records are made available for legitimate on-campus professional use on a need-to-know basis. Public information (or directory information) is disclosed on a routine basis unless the student requests, in writing, that such information not be released. Forms to request the public information NOT be released are available in the Office of Records. **These forms must be completed each semester/session, by the last day of late registration.** Public information will not be released during the first ten working days of the semester/session. After that time, information will be released, when appropriate, unless requested in writing not to do so.

The following is considered public information:

1. Name

2. Address, Telephone
3. Home address (permanent)
4. Weight and height of athletic teams
5. Date of birth
6. Dates of attendance and current class standing
7. Major field(s) of study
8. Degrees and awards received, including dates
9. Participation in officially recognized activities

NOTE: If a request not to disclose public information has been received, your name will not be released to national dean's lists, honor societies, newspapers, etc.

Class Standing

Class standing is determined on the basis of total credits earned. Students are classified based on the following credits:

	Credits
Freshman	0-29
Sophomore	30-59
Junior	60-94
Senior	95

Transfer students will be given standing on the basis of the number of credits accepted by the University. Special students are registered without class standing.

Credit/No Credit Option

The credit/no credit option encourages regular degree seeking students to explore areas of interest not related to their academic major. One "free" elective may be taken under this option each semester/session. The instructor will not be informed of the student's status in the course. The student will be given credit toward graduation if he/she performs at a level of "C" or above. If performance falls below that level, the course will not be recorded on the student's transcript. In either case, the course will not be included in any grade point calculations. If the student later changes his/her major and the course becomes a requirement, the course will be accepted by his/her new major department. The student may change from credit/no credit to regular enrollment status or from regular to credit/no credit status, within the published deadlines, by completing the necessary paperwork at the Office of Records. The credit/no credit option is not available for graduate courses.

Pass/Fail

A course may be offered for pass/fail or for a letter grade. This determination is made at the time the course is approved and must apply to the class as a whole. If a class is offered for pass/fail, the fact must be clearly explained by the instructor to the students at the beginning of the class. Pass/fail is not at the discretion of the student. A failing grade carries grade points used in calculating a student's grade point

average. Performance in such a course is included in determining the student's satisfactory progress.

Cheating

Cheating is not tolerated at the University of Alaska, Anchorage and constitutes grounds for dismissal. Cheating as applied to all academic work consists of all those means by which unauthorized assistance is used by a student in the preparation of materials he/she submits as his/her own. Detailed policies and procedures for adjudicating cases of cheating are available from the Office of Records.

Independent/Directed Study

Three options for individual study are available:

A. Independent Study
B. Specified Directed Study
C. Unspecified Directed Study

DEFINITIONS:

A. **Independent Study** courses are those courses in which the course content, learning activities and evaluative criteria are developed primarily by the student with input from the instructor and final approval by the instructor and the dean of the college or school. Independent research is included as independent study. Independent study courses shall bear a course number ending in "97" and shall be offered at the 300, 400, and 600 levels only.
B. **Specified Directed Study** courses are courses identical with regard to title, course objectives, course content and evaluative criteria to courses regularly offered by the school, college, or department, but that are not offered during the current semester/session. Such courses shall bear the regular title and number of the course for which they are intended to substitute in the student's program of study followed by the designation of "Directed Study."
Specified Directed Study courses shall bear the number and title entered in the catalog. They shall be identified by the phrase "Directed Study" to be entered after the regular title.
C. **Unspecified Directed Study** courses are those courses in which the objectives, content, learning activities and evaluative criteria are developed jointly by the student and the instructor with final approval by the instructor and the dean.
Unspecified Directed Study courses shall bear a course number ending in "96" and shall be offered at a level that reflects the prerequisite knowledge and courses.

LIMITS:

A. No more than 12 credits earned in independent study, specified directed study, and unspecified directed study courses may be applied to an undergraduate or graduate degree.

B. No more than 4 credits of independent study, specified directed study, or unspecified directed study may be taken during Fall and Spring semesters. No more than 6 credits may be taken during the Summer session.
C. No specified directed study course can be taken by on-campus students during the semester/session in which the course, for which the specified directed study is intended to substitute, is offered. Students are strongly encouraged to take required courses when they are scheduled to be offered via traditional methods of instruction.
D. Course credit for independent study and unspecified directed study courses is based on the amount of work required for achievement of course objectives. This should be similar to the work required by the instructor in traditional courses.
E. Registration for independent study and specified/unspecified directed study shall conform to the rules and calendar governing enrollment in regularly scheduled courses. THAT IS, STUDENTS AND INSTRUCTORS WILL BE REQUIRED TO ADHERE TO THE ADMISSIONS RULES, LATE REGISTRATION RULES, THE ADD/DROP DEADLINE, AND THE WITHDRAWAL DEADLINE IN FORCE FOR EACH SEMESTER/SESSION.

Class Attendance

If a student fails to attend by the **first class meeting of the second full week of classes**, the instructor has the authority to require that the student be dropped from the course. Space may be given to another student.

1. The instructor will complete a four-part form for each student whose space is given to another student. The original is forwarded to the Office of Records, a copy to the instructor's dean, and the instructor retains a copy. Upon receipt of the form, the student will be officially dropped from the class by the Office of Records.
2. The student who appears in class after his/her space has been given to another student is given a copy of the form. If a student wishes to appeal the instructor's action, he/she would appeal to the instructor's dean immediately.

Regular attendance is expected in all classes. Unexcused absences may result in a student receiving a failing grade. It is the responsibility of the student to establish to the instructor's satisfaction the validity of an excuse for absence and to work out with the instructor acceptable arrangements for making up missed work. The student who never attends the class, and does not officially drop, receives the final grade of "F" which is consistent with current policy.

Veteran's Training

UAA is approved for veteran's training. Veterans interested in information about educational benefits should contact the Office of Admissions and Financial Aid. In compliance with VA requirements, veterans receiving educational benefits must verify their enrollment in writing each month. Failure to verify enrollment by the 15th of each month will result in the termination of VA benefits.

UAA will report to the VA any veteran receiving educational benefits who is not maintaining a semester or cumulative GPA of 2.00 or above (3.00 for a veteran in graduate studies). Failure to maintain the required GPA will result in the termination of VA benefits.

Grading System

The letter grades that appear on the student's permanent academic record are as follows:

A—an honor grade; indicates comprehensive mastery of the required work.
B—indicates demonstration of a high level of performance in meeting the course requirements.
C—indicates a satisfactory level of performance.
D—the lowest passing grade; may not be acceptable to satisfy requirements in certain majors and in graduate programs.
F—indicates failure.
P—indicates passing work in a course taken under pass/fail. Performance in such a course (satisfactory completion or failure) is included in determining the student's satisfactory progress status. For performance comparison only, a grade of "P" is considered to be equivalent to a grade of "C" or higher in undergraduate courses and a grade of "B" or higher in graduate courses.
NC—indicates no credit received for a course.
NS—indicates grade not submitted.
I—incomplete; indicates additional work must be peformed for satisfactory completion of the course. May be given for unavoidable absence or other conditions beyond the control of the student where work already completed is grade "C" or better. Course work must be completed by a specified date not to exceed one year or the "I" becomes an "F".
DF—deferred; indicates that the course requirements cannot be completed by the end of the semester/session, that credit may be withheld without penalty until the requirements of the course are met within an approved time. This designation will be used for courses such as thesis, projects, etc., that require more than one semester/session to complete. It is usually reserved for graduate level courses. A deferred grade will become permanent after two years.
AU—audit; indicates student has enrolled for information instruction only. No academic credit is awarded.
W—indicates withdrawal from the course.
CR—indicates credit earned at or above a grade of "C" in a course taken under the credit/no credit option.
CEU—indicates completion of continuing education units.

Grades which do not carry grade points that are used in calculating GPA are "I", "AU", "CR", "DF", "NC", "NS", "P", "W", "CEU", and grades earned credit-by-examination.

Grade Point Average Computation

The grade point average (GPA) for graduation is computed by dividing the total cumulative grade points earned at UAA by the total credits attempted. Credits accepted in transfer are not used for computation. Letter grades are weighted as follows in compiling a grade-point average: "A"—4.00, "B"—3.00, "C"— 2.00, "D"—1.00, and "F"—0.00. The number of credits is multiplied by the letter value of the grade to give the grade points for each course. The total cumulative grade points is then divided by the total credits attempted.

Grades which do not carry grade points that are used in calculating GPA are: "I", "AU", "CR", "DF", "NC", "NS", "P", "W", "CEU", and grades earned credit-by-examination.

All grades (original and any repeated courses) will be shown on the transcript, but only the last grade achieved for a course will be computed in the grade point average.

All college work attempted including that at other institutions is considered in the determination of a student's eligibility for graduation with honors. Grades earned from all repeated courses are also included in the computation for graduation with honors.

Change of Grade Policy

Grades, other than incomplete and deferred, submitted by the instructor upon completion of a course, are assumed to be the student's final grades, and become part of the student's permanent record. A grade may not be changed unless a legitimate error has been made on the part of the instructor in calculating the grade, and must be approved by the department chairperson and the dean. Corrections of grading errors must be made by the end of the following fall or spring semester.

STUDENT GRADE ACTION PROCEDURES

It is the responsibility of the instructor of each class section to evaluate the overall performance of each student at the end of the class in accord with the grading protocol given to the class at the beginning of the course, preferably in written form, or as modified for all class members in writing at a subsequent date. Faculty attempt to evaluate students in a fair and noncapricious manner in compliance with course requirements which are distributed to students.

The basis for further action for a grade change for the course is a) the instructor made a clerical error in computing the grade; or b) the instructor did not follow the grading protocol as outlined in the course.

Students who question a grade received should follow the procedures listed below:

1. Student with grading problem tries to resolve problem informally with instructor; if unresolved,

2. Student informally appeals to Dean of School or College to resolve problem; if unresolved,
3. Student submits Official Grade Action Form to Vice Chancellor for Academic Affairs who refers case to the Admissions and Standards Committee.
4. The Admissions and Standards Committee recommends action to the Vice Chancellor for Academic Affairs who notifies the student; if unresolved,
5. The student appeals to the University Grievance Committee which reviews the case and recommends to the Chancellor. His decision shall be final.

An Official Grade Action Form must be submitted no later than 30 days after instruction begins for the next regular semester (summer sessions excluded). A student who fails to file an Official Grade Action Form within the above specified deadline forfeits the right for further grade action under this procedure. Official Grade Action Forms are available in each school/college and the Office of Student Development.

Credits by Examination

Advanced Placement

The University of Alaska, Anchorage awards credit for satisfactory performance (a score of 3 or higher), on the College Board Advanced Placement Examinations. These exams are normally completed by students during their senior year in high school.

A student desiring advanced placement credit must request that an official report of his/her scores on the examination be sent to the Office of Records and upon his/her acceptance and enrollment at UAA appropriate credit will be awarded. Students may receive credit for more than one advanced placement examination.

UAA awards Advanced Placement credit according to the following:

ADVANCED PLACEMENT EXAM:	UAA EQUIVALENT:
ART	
Studio Art	4 credits lower-division Art elective
History of Art	Art 261/262
BIOLOGY	Biol 107/108 + 4 credits lower-division Biol. elective
CHEMISTRY	Chem 105
COMPUTER SCIENCE	CS 201/202
ENGLISH	
Language & Composition	Engl 111
Literature & Composition	Engl 121
FRENCH	
Level 3: French Language	Fren 201/202
Level 3: French Literature	Fren 344 + 3 credits upper-division Fren. elective
GERMAN	
Level 3: German Language	8 credits lower-division Humanities elective
HISTORY	
American History	Hist 131/132
European History	Hist 102
LATIN	
Virgil	4 credits lower-division Humanities elective
Catullus–Horace	4 credits lower-division Humanities elective

ADVANCED PLACEMENT EXAM:	UAA EQUIVALENT:
MATHEMATICS	
Calculus AB	Math 107/108/200
Calculus BC	Math 107/108/200/201
MUSIC	
Music Theory	Mus 104
Music Listening & Literature	Mus 122
PHYSICS	
Physics B	Phys 103
Physics C	Phys 211
SPANISH	
Level 3: Spanish Language	Span 201/202
Level 3: Spanish Literature	Span 341/371

College Level Examination Program (CLEP)

GENERAL EXAMINATIONS

1. Credit for CLEP general examinations will be awarded only to admitted, enrolled students or to those students who have previously taken courses at the University of Alaska, Anchorage which resulted in the establishment of an official record.
2. Credits earned through CLEP general exams are considered elective credit.
3. Credit for CLEP general exams will be awarded according to the following schedule:

English	No credit awarded
Math	3 credits for 500 score
Natural Science	6 credits for 500 score
Humanities	6 credits for 500 score
Social Sciences/History	6 credits for 500 score
	21 credits maximum

4. If 6 semester credits have been earned in an area covered by a CLEP general exam, no credit will be awarded for the successful completion of that examination.

CLEP SUBJECT EXAMINATIONS

1. Only admitted enrolled students or those students who have previously taken courses at the University of Alaska, Anchorage which result in the establishment of an official record will be awarded credit.
2. A CLEP subject exam must not duplicate a course for which credit has already been received.
3. Minimum passing scores on the CLEP Subject Examinations will be those minimums recommended by the current "CLEP Scores Interpretation and Use" manual, which are based on national norms. Depending on subject, these norms vary from 46-51. In the case of essay usage, the appropriate

department will determine a passing grade based on the CLEP score plus the essay.
4. Examinations may not be repeated earlier than one year.

DANTES (USAFI) Examinations

Credit may be awarded for successful completion of the Defense Activity for Non-traditional Education Support (DANTES) examinations with departmental approval. These exams were formerly known as United States Armed Forces Institute (USAFI) exams. An official copy of the DANTES (USAFI) transcript must be submitted to the Office of Records.

UAA Credit by Examination (Challenge Examinations)

1. Only admitted and currently enrolled students are eligible to request credit-by-examination. After the request is approved by the instructor and dean, the student pays the fees in the Accounting Office and presents the receipt to the instructor before taking the examination.
2. Determination as to what courses are challengeable rests with the appropriate department.
3. Construction of the challenge examination is the responsibility of the appropriate department.
4. Credit may not be granted by examination for a course that substantially duplicates a course for which credit has been granted.
5. A person who has audited a class may not request credit via departmental examinations for that class until the subsequent academic year.
6. Departmental examinations will be graded pass/fail.
7. A pass grade carries no grade points used in calculating a student's GPA.
8. A fail grade carries grade points used in calculating a student's GPA.

Alternate Means of Earning Credit for English 111

Besides completion of English 111 and transfer of credit from an equivalent course, students may be awarded credit for Engl 111 in four other ways:

1. A student may pass a challenge examination.
2. A student who has recorded a score of 26 or higher on the English component of the ACT test or a score of 55 (550) or higher on the verbal component of the SAT test may elect not to take English 111 in his/her freshman year and to enroll in English 311 in his/her sophomore year or later. If the student then earns a grade of "C" or better, he/she is awarded 3 credits for English 111 as well. Upon completion, the student and his/her advisor must notify the Office of Records.
3. A student who has recorded a score of 3 or higher in the Advanced Placement English test will receive credit for English 111. A student desiring advanced placement credit must request that an official report of his/her scores on the examination be sent to the Office of Records and upon his/her acceptance and enrollment appropriate credit will be awarded.

4. A student who has recorded a score of 60+ in the Test of Standard Written English (TSWE), a component of the SAT Test, will be awarded credit for English 111. Student will be notified at the time of formal acceptance to UAA.

Credit for Engl 111 cannot be met through the College Level Examination Program (CLEP).

Undergraduate Probation and Dismissal

Probationary Admission to UAA may be granted to 1) high school graduates with a high school grade point average of at least 2.00; or 2) college transfer students with a grade point average of at least 1.75. However, the probationary student must have from his department an admission recommendation accompanied by a full-time program of study that has been approved by the dean of his/her college or school. Probationary admission status will be removed after one semester if the student earns a cumulative grade point average of 2.00. If he/she does not earn a cumulative grade point average of 2.00, he/she will be dismissed from the University.

Academic Warning is the University's expression of concern to a student whose semester grade point average is below 2.00. A warning is issued to a student whose semester grade point average is below 2.00 but whose cumulative grade point average is 2.00 or higher.

Academic Probation is the status assigned to a student whose cumulative grade point average is below 2.00.

Continuing Probation is the status assigned to a student who begins a semester on academic probation (but not probationary admission) and, during that semester, earns a grade point average of 2.00 or higher without raising his/her cumulative grade point average to at least 2.00.

Probation and Student Activities

Full-time students in good academic standing are eligible for participation in intercollegiate competition or in extracurricular activities (including, for example, student body offices, cheerleading, debate squads, etc.). Students on academic warning, academic probation or admitted to the University on probationary status may participate in these activities but those on continuing probation may not. Students on probation are advised to keep their participation in activities within limits that will allow them to achieve good academic standing.

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/her cumulative grade point average to at least 2.00; or 2) begins a semester on academic probation and fails to earn a semester grade point average of at least 2.00; or 3) begins a semester on continuing probation and, regardless of the semester grade point average, fails to raise his/her cumulative grade point average to at least 2.00 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 2.00 or higher each semester.

Appeal Process

A student placed on academic probation, continued probation, or dismissed from the University for academic cause has the right to appeal. Appeals must be presented in writing to the Vice Chancellor for Academic Affairs within ten working days following notification of academic status. The appeal shall be heard by an administrative committee convened and chaired by the Vice Chancellor for Academic Affairs. The Committee shall render a final decision on the appeal within 30 days following filing of the appeal. A specific set of procedures and deadlines for the appeal process is a matter of public record in the Office of Records. These deadlines are conveyed to the student at the time of notification of probation or dismissal.

Grounds for appeals shall include only the following: 1) Error in application of the standard. 2) Extreme extenuating circumstances.

The burden of demonstrating that sufficient grounds for the appeal do in fact exist, lies with the student.

Reinstatement

Students who have been dismissed from the University of Alaska, Anchorage may apply for reinstatement only after one full Fall or Spring semester has passed since the effective date of dismissal.

Students dismissed at the end of Spring semester are eligible to apply for reinstatement **during the following Spring semester**. If approved, students can enroll for any subsequent semester.

Students dismissed at the end of the Fall semester are eligible to apply for reinstatement **during the following Fall semester**. If approved students can enroll for any subsequent semester.

Along with the application for reinstatement, students must submit:

A. Evidence of successful academic performance:
   1. Students must provide official transcripts of all academic work since dismissal.
   2. Beginning with students dismissed at the end of Spring 1984, students who apply for reinstatement must have completed a minimum of 9.0 transferable semester credits prior to application for reinstatement.
   3. Student's cumulative GPA since dismissal must be 2.0 or greater.

OR

B. Evidence of change in quality of work and motivation:
   1. Students must show evidence of clear direction of academic goal through written statement.
   2. Students must show evidence of acceptance of responsibility supported in letters of reference.

The Admissions and Standards Committee will consider applications for re-

instatement. To petition the Committee, students must submit an application for reinstatement together with a statement which articulates his/her own assessment of his/her academic situation showing the Committee what circumstances worked against his/her success and what has changed that will foster success.

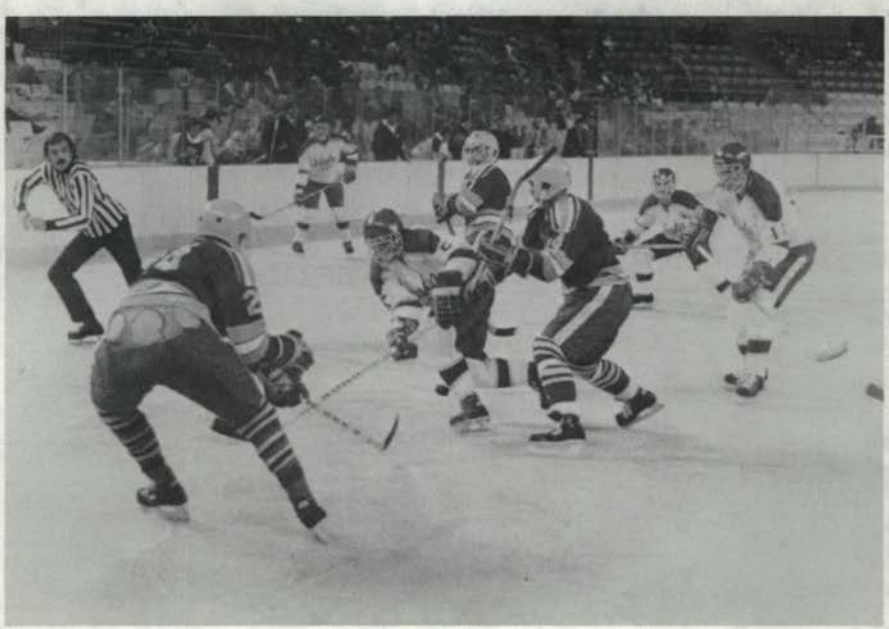
Academic dismissal will result unless a student who has been reinstated following dismissal maintains a GPA of 2.0 or greater each semester.

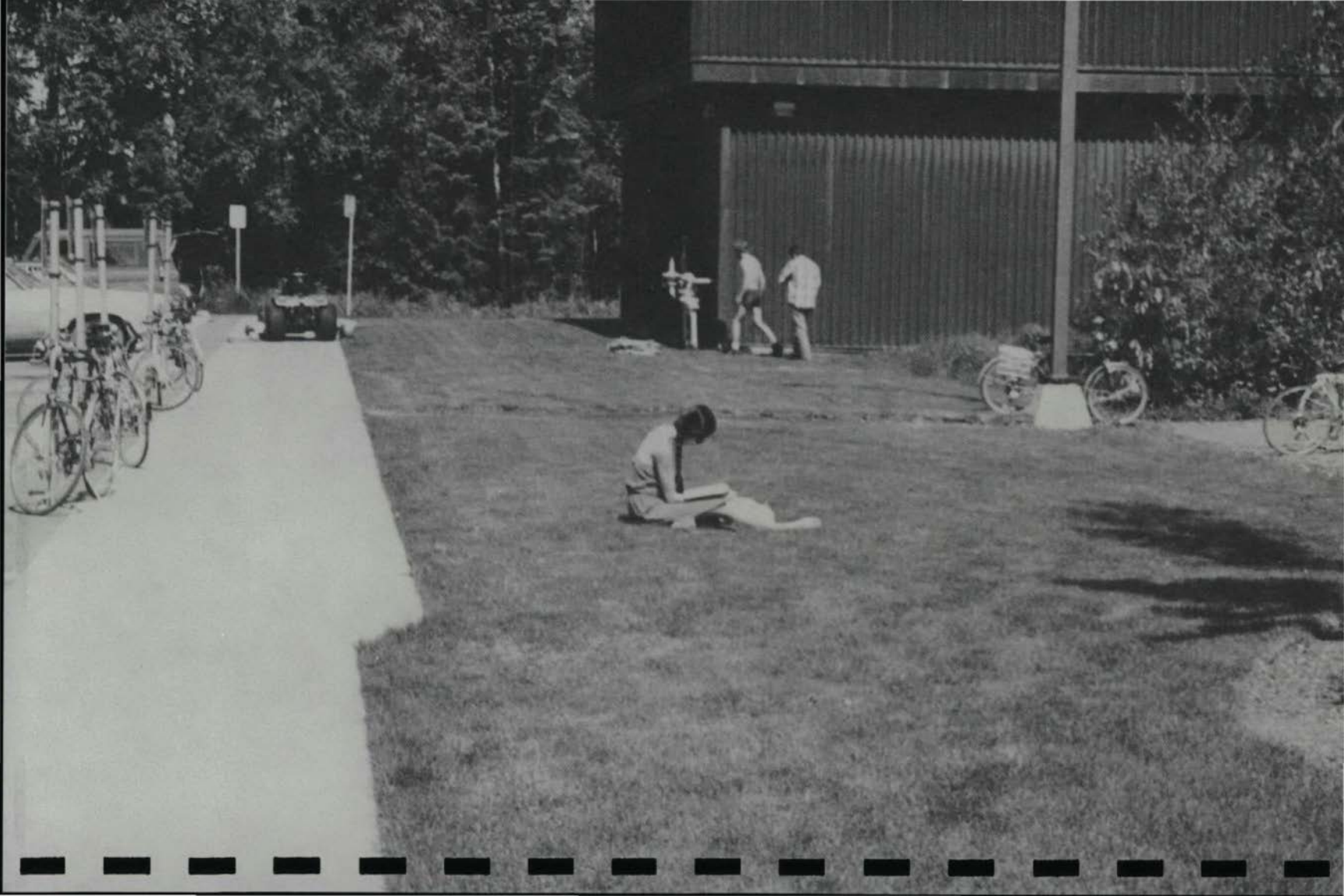
Graduate Probation and Dismissal

Graduate students shall be placed on academic probation for a period not to exceed one academic semester if they do not maintain an overall grade point average of 3.0 in the major, or if, for reasons specified by the graduate study committee and the dean, are not making satisfactory academic progress.

Any student who cannot satisfy the requirements for removal of probation shall be dismissed from the University.

Any student who is dismissed may not apply for reinstatement to a graduate program for one calendar year from the date of dismissal.





DEGREE REQUIREMENTS

General University Requirements

Undergraduate

To receive an undergraduate degree from the University of Alaska, Anchorage a student must satisfy three sets of requirements: 1) General University Requirements; 2) General Education Degree Requirements; and 3) Major Program Requirements. General University Requirements and General Education Degree Requirements are described in this section of the catalog; Major Program Requirements are described within the appropriate school or college section of this catalog.

A minimum of 120 credits, including those accepted by transfer, must be earned for the baccalaureate degree. Some degree programs require completion of more than the minimum. Refer to the degree program as described in the catalog for specific requirements.

At least 48 upper-division credits are required to graduate with a baccalaureate degree from UAA; 24 of which must be earned in residence at UAA.

Students must complete at least 30 of the last 36 credits required for a baccalaureate degree in residence at UAA. In addition, transfer students are required to earn in residence at UAA a minimum of 12 credits in each major field and, where a minor is applicable, a minimum of 3 credits in each minor field.

A cumulative grade point average of 2.0 ("C") must be attained at UAA in order to graduate. Some programs may require a higher UAA GPA in the major. Refer to the degree program as described in the catalog for specific requirements. If a minor is required, a 2.0 ("C") GPA from UAA must be attained.

A student who has been admitted to UAA as a regular undergraduate student in pursuit of a baccalaureate degree may elect to graduate under the General Education Degree Requirements of the catalog in effect during the year of graduation or under the General Education Degree Requirements in effect at the time of acceptance as a regular undergraduate student. If more than seven years elapse after a student is admitted to UAA as a regular student but before the student graduates, that student must graduate under the General Education Degree Requirements in effect during the year of graduation.

Effective with the fall semester of the 1988-89 academic year, all credits (transfer or resident) used to satisfy General University Requirements and General Education Degree Requirements and Electives must have been completed within fifteen (15) years before the completion of any baccalaureate degree awarded by UAA.

All credits (transfer or resident) used to satisfy Major Program Requirements and if applicable, Minor Requirements must have been completed within eight (8) years before the completion of any baccalaureate degree awarded by UAA.

Separate from the process of meeting the General Education Degree Requirements are the processes of declaring a major and satisfying the requirements for that

major. To graduate with a specific major program a student must satisfy the requirements for that major as set forth in the catalog designated by the major department.

The process of changing a major is the same as the process of declaring a major in that the student who changes a major must satisfy the requirements for the new major as set in the catalog designated by the new major department.

A maximum of 32 semester credits completed by correspondence may be applied to a baccalaureate degree. A maximum of 72 semester credits will be accepted from junior and community colleges; cumulative from within and outside the University of Alaska system.

General Education Degree Requirements (37 Credits)

All students who earn a baccalaureate degree from UAA must have completed the University's General Education Degree Requirements. Also listed are courses from which individual major programs have selected more specific requirements. Not every course is applicable to the General Education Degree Requirements of every major. Students must consult the program description for the major to determine that the major's specific General Education Degree Requirements. The categories of the General Education Degree Requirements are as follows:

Credits

1. **Oral Communications Skills** 3
   Spch 111, 241
2. **Written Communication Skills** 6
   Engl 111, 211, 213, 311
3. **Reasoning Skills** 3
   BA 110, CS 105, 106, 107, 108, ES 201, Ling 110, Phil 101
4. **Quantitative Skills** 3
   AS 300, 307, Math 106, 107, 108, 200, 201, 202, 270, 272
5. **Art Area** 3
   Art 160, 261, 262, 367, JPC 367, Mus 122, 221, 222, Thr 111, 311, 312, 411, 412
6. **Humanities Area (at least two disciplines outside the major)** 6
   Engl 121, 201, 202, 306, 307, Fren 101, 102, Hist 101, 102, 131, 132, 341, JPC 215, Phil 201, 211, 212, 301, Span 101, 102
   Note: The courses listed in the Arts Area, except Art 160, Mus 122, and Thr 111, may be taken to fulfill the Humanities Area requirements; however, no courses may be double counted.
7. **Natural Science Area (including one laboratory course)** 7
   Astr 103, 104, Biol 107, 108, 111, 112, 113, 114, 215, 239, 252, 271, Chem 105, 106, 120, 121, Geol 111, 112, Phys 103, 104, 211, 212
8. **Social Science Area (at least two disciplines outside the major)** 6
   Anth 101, 200, 202, 250, Econ 201, 202, JPC 101, Just 110, 250, 330, Ling 101,

PS 101, 102, 311, 312, Psy 111, 150, Soc 101, 106, 201, 202, 222, 342, SWK 106

Common Core of General Education Degree Requirements

The common core of General Education Degree Requirements was developed to enhance academic advising and to ensure transferability and applicability of courses to General Education Degree Requirements for those students transferring from one unit within the University of Alaska to another. The common core encompasses those areas of knowledge common to all baccalaureate degrees within the UA system and thus represents the minimum standards for general education for the baccalaureate degree.

Community college students through the University of Alaska System will benefit from the transfer agreement which has been established. Community college credits applicable toward baccalaureate degree requirements are specifically addressed. The transfer agreement guarantees the transfer of up to 34 credits toward any University of Alaska baccalaureate degree and indicates the distribution: written communication, 6 credits; oral communication, 3 credits; humanities/social sciences, 15 credits; quantitative/natural science, 10 credits. Courses applicable toward these 34 credits are listed in the "Alaska Transfer Guide". The evaluation of University of Alaska community college credit will follow the recommendations which appear in the "Alaska Transfer Guide."

Major Program Requirements

(Described within the schools or colleges.)

Procedure for Establishment of Undergraduate Interdisciplinary Degree Programs

Upon completion of 15 credits at UAA, a student may develop an interdisciplinary curriculum in interdisciplinary studies. The proposed curriculum must differ significantly from established degree programs and must not be a substitute for a regular program, the requirements for which the student is unable to meet. All General University Requirements for the appropriate degree must be met. The proposal must nominate a program director and two or more faculty members to serve as an advisory committee. The program director shall be the chairperson.

To receive a degree in Interdisciplinary Studies from the University of Alaska, Anchorage a student must satisfy General University Requirements, General Education Degree Requirements, and Major Program Requirements. The program plan for a degree is determined by the individual student in consultation with his or her 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 advisory committee. Changes within the approved curriculum may be made only with the approval of the advisory committee and relevant academic dean. The curriculum will not be transferable to other campuses.

The final proposal shall be presented for approval to the relevant academic dean. In the case of interdisciplinary degrees involving more than one school or college, it shall be presented for approval to each relevant academic dean.

PROCEDURE:

1. The student develops a proposal, including the General University Requirements, organizes an advisory committee of three faculty members from the relevant academic disciplines, secures agreement of one of them to serve as chairperson and presents the proposal for committee approval.
2. If the committee supports the proposal, it is forwarded to the relevant academic dean(s). If the proposal, chairperson, and committee are approved, the dean(s) issue(s) a letter of notification to the student with copies to committee members and the Office of Admissions and Financial Aid.
3. The letter of notification includes the decision regarding the proposal, the name of the committee chairperson and members of the committee.
4. A copy of an approved proposal is then forwarded to the Office of Records for establishment of a student file.
5. The student works with the advisory committee and the Office of Records until they certify that all requirements for the interdisciplinary degree are met.

Request for Degree Check

Undergraduate students who have been officially accepted in a major and have accumulated 85 or more semester credits should file a Request for Degree Check with the Office of Records. Upon receipt of the form, a degree check will be completed to inform students of progress made toward their degree. The advisor's signature is required on the Request for Degree Check. Forms are available from the Office of Records.

Graduation with Honors

In order to graduate with honors, an undergraduate student must first have earned a cumulative grade point average in all college work attempted at UAA of 3.5 or higher.

A transfer student must have completed 48 semester hours of credit at UAA and have earned a cumulative grade point average in all college work attempted at UAA of at least 3.5 to be considered for honors. In addition, a transfer student must have a cumulative grade point average in all college work attempted of not less than 3.5 in order to graduate with honors.

All college work attempted including that at other institutions is considered in the determination of a student's eligibility for graduation with honors. Grades earned from all repeated courses are also included in the computation.

Students with cumulative grade point averages of 3.5 will be graduated cum

laude, 3.8 magna cum laude, 4.0 summa cum laude, provided they meet the requirements stated above.

Second Baccalaureate Degree

Any student who holds a baccalaureate degree from a regionally accredited college or university and who wishes to obtain a second baccalaureate degree must complete at least 24 credits at the University of Alaska, Anchorage beyond the first baccalaureate degree. All General University Requirements, including the residency requirements, and the Major Program Requirements must be met for the second degree.

General University Requirements

Graduate

A graduate student must apply and be admitted to a specific degree program and, in addition, must later be admitted to candidacy for that degree and discipline major.

A graduate student must be registered for each semester in which he/she is actively working towards his/her degree (Refer to Extended Registration).

Candidates for a master's degree from the University of Alaska, Anchorage must meet the following requirements:

1. Complete at least thirty (30) approved credits beyond their bachelor's degree. At least three (3) but not more than six (6) of the thirty credits must be for research in programs for which a thesis is not required. Not more than twelve (12) of the thirty credits may be for thesis or research in programs for which a thesis is required.
2. At least one-half of the required credits that are not thesis or research credits must be at the 600 level. Refer to the course numbering system and course descriptions for graduate programs in this catalog.
3. All candidates must pass a written or an oral comprehensive examination. If a thesis is required, the examination will include an oral defense of the thesis.
4. Complete all program requirements.
5. All graduate credits must be earned within a consecutive seven-year period.
6. The thesis document must adhere to general University of Alaska, Anchorage requirements of format. The student's graduate study committee will see that all these are met. The library will make a further inspection for compliance with the requirements that relate to binding and permanence of the document.

The following additional requirements must be met for graduate degrees at the University of Alaska, Anchorage:

1. Students must complete courses taken to correct deficiencies before applying for candidacy. Such courses may not be applied toward the graduate degree.
2. Credits earned through correspondence courses, credit by examination,

and courses graded on a credit/no credit option cannot be used to satisfy graduate degree requirements.

3. Up to nine (9) semester credits earned prior to application for admission to graduate study at the University of Alaska, Anchorage may, with the approval of the students' graduate study committee, be used to satisfy graduate degree requirements.
4. Only 300, 400, and 600 level credits approved by the graduate study committee can be used to satisfy graduate degree requirements.
5. Grades of "C" or lower are not acceptable when earned in courses at the 300 or 400 level. A grade of "C" is the minimally acceptable grade in a 600 level course, provided the student maintains a cumulative grade point average of 3.0.

For specific courses applicable for graduate degrees, refer to course requirements for graduate studies in this catalog.

Procedure for Establishment of Graduate Interdisciplinary Degree Programs

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 graduate degree must be met. One-half of the required credits must be 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 his designee.

To receive a degree in interdisciplinary studies from the University of Alaska, Anchorage a student must satisfy the 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 from one of them to act as graduate advisor, and presents the proposal for committee

approval. (Refer to Graduate Admission and Degree Requirements in this 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 credentials for admission to graduate study to the dean for review. (Refer to Acceptance to Graduate Study in this catalog.)
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 this 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 his designee, appoints the student's Graduate Study Committee and chairperson.

Final Comprehensive Examinations and Theses

When final oral comprehensive examinations and/or a defense of these are required, the Vice Chancellor for Academic Affairs or his designee will appoint an outside examiner to the graduate study committee. The outside examiner is appointed from the faculty of a department outside the one in which the student is seeking a degree. The outside examiner ascertains whether or not the examination is fair and appropriate.

The thesis must meet general University of Alaska, Anchorage requirements of format, under supervision of the student's graduate study committee. The staff of the University of Alaska, Anchorage Library will inspect the thesis to ensure that it complies with binding and other requirements that contribute to its permanence.

Second Master's Degree

Students who have earned a master's degree at the University of Alaska, Anchorage may wish to become candidates for a second master's degree in an analogous discipline. Their graduate study committee will determine the program requirements for the second degree. These requirements must consist of at least twenty-one (21) credits in addition to those earned for the first master's degree.

Students wishing to complete a second master's degree must submit to the Office of Admissions and Financial Aid an Application for Admission, with the appropriate fee, and all supporting documents required by the program.

Application for Diploma

All students are responsible for familiarity with University regulations and requirements. To be eligible for graduation, an Application for Diploma, along with a $20 non-refundable Graduation/Diploma fee, must be submitted to the Office of Records no later than the deadline published in the class schedule and the catalog. The advisor's signature is required on the application form. Applications for Diploma received after the deadline will be processed for graduation the following semester/session. Forms are available from the Office of Records. Students not completing their degree requirements, after filing their Application for Diploma, are required to re-apply for their diploma and pay the $20 Graduation/Diploma fee.

Upon receipt of the Application for Diploma, a degree check will be completed and if all requirements have been met, the degree will be awarded at the end of the semester/session.

Graduation and Commencement

The University of Alaska, Anchorage issues diplomas three times a year: in September following the summer session, in January following the Fall semester, and in June following the Spring semester. **All students must be registered at the University of Alaska, Anchorage in the semester they plan to graduate.**

Students who complete degree requirements and meet the Application for Diploma deadline during the Spring semester are invited to participate in the commencement ceremony in May. Students who complete degree requirements and meet the Application for Diploma deadline during the Summer session and the Fall semester are invited to participate in the commencement ceremony in December.

RESIDENCE CREDIT

Residence credit is defined as UAA credit earned by a student in formal classroom instruction or in individual study or research through the University of Alaska, Anchorage. Transfer credit, formal service school credit, military service credit, credit granted through nationally prepared examinations, credit by examinations earned through locally prepared tests and correspondence study are not considered residence credit.

THE COLLEGE OF ARTS AND SCIENCES

Faculty

Dean: Marvin D. Loflin, Professor (Anthropology)
Associate Dean: Michael J. Hood, Professor (Theatre)

Department of Anthropology

Professors: Kerry D. Feldman, Marvin D. Loflin, William B. Workman (Chairperson)
Associate Professor: Steve J. Langdon

Department of Art

Professor: Josephine H. Cooke
Associate Professors: Ken Gray (Chairperson), Sam Kimura
Assistant Professor: Carline Bouilhet

Department of Biological Sciences

Professors: William J. Keppler, Kristine E. Mann, Stephen A. Norrell
Associate Professors: Jerry D. Kudenov (Chairperson), Richard W. Kullberg, Bjartmar Sveinbjornsson
Adjunct Assistant Professor: Mary K. Schmitt

Department of Chemistry/ Physics

Professor: John P. Harrington
Associate Professors: Daryl A. Douthat, John Kennish, Donald Martins (Chairperson)
Adjunct Assistant Professor: David J. Packey

Department of English

Professor: Thomas F. Sexton (Chairperson)
Associate Professors: James J. Brosamer, Ronald Spatz
Assistant Professors: Charles Beirnard, Robert Crosman, Michael C. Haley, Judith Moore

Foreign Language Program

Associate Professor: Arsenio Rey

Department of History/ Philosophy

Professors: Stephen W. Haycox, William A. Jacobs
Associate Professors: James J. Liszka, Kenneth O'Reilly (Chairperson)

Department of Journalism and Public Communication

Professor: Sylvia Broady (Chairperson)
Assistant Professors: Larry L. Pearson, Richard C. Taylor
Distinguished Professor, Atwood Chair of Journalism (Annual Appointment): Richard Smyser
Adjunct Assistant Professor: Douglas Barry

Department of Mathematical Sciences

(Includes Applied Statistics, Computer Science, and Mathematics)
Professor: Brian D. Wick
Associate Professors: Arthur Bukowski, William L. Clark (Chairperson), William Larry Gordon
Assistant Professors: Charles Bare, Walter J. Briggs, M. Hilary Davies, Leonard M. Smiley
Instructor: Jeffrey Key

Department of Music

Associate Professors: George R. Belden (Chairperson), William T. Whitener
Assistant Professor: Timothy C. Smith

Department of Political Science

Professor: Diddy R. M. Hitchins
Assistant Professor: James W. Muller (Chairperson)

Department of Psychology

Professors: Richard L. Bruce (Chairperson), Stanley W. Johnson, Robert J. Madigan, Todd R. Risley
Associate Professors: Peter Dowrick, Bruno M. Kappes, Chris L. Kleinke, Roberta H. Morgan

Department of Social Work

Associate Professors: Cecilia M. Kleinkauf (Chairperson), Myrna I. Robinson
Assistant Professor: Karen Seccombe
Instructor: Eileen Lally

Department of Sociology

Associate Professor: W. Jack Peterson
Assistant Professor: Sharon K. Araji (Chairperson)

Department of Theatre and Speech

Professors: Leroy Clark (Chairperson), Michael J. Hood
Assistant Professors: Frank Bebey, Frances Lautenberger, John Rindo

Degrees

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

The **Bachelor of Arts** (BA) degree is offered in anthropology, art, biological sciences, computer science, English, history, journalism and public communications, mathematics, music, political science, psychology, sociology, and theatre.

The **Bachelor of Fine Arts** (BFA) degree is offered in art.

The **Bachelor of Music** (BM) degree is offered in performance, elementary education, and secondary education.

The **Bachelor of Science** (BS) degree is offered in anthropology, biological sciences, chemistry, computer science, mathematics, medical technology, natural sciences, psychology, and sociology.

The **Bachelor of Social Work** (BSW) degree is offered in social work.

The **Baccalaureate Minor** is offered in anthropology, art, biological sciences, chemistry, computer science, English, history, journalism and public communications, mathematics, music, political science, psychology, public administration, sociology, theatre.

The **Master of Arts** (MA) degree is offered in English.

The **Master of Arts in Teaching** (MAT) degree is offered in English.

The **Master of Fine Arts** (MFA) degree is offered in creative writing.

The **Master of Science** (MS) degree is offered in biological sciences, counseling psychology.

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

Prospective transfer students, particularly those who have not decided upon a major, should pay special attention to the requirements of programs within the

College of Arts and Sciences regarding the applicability of credits toward the degrees. The transcripts of accepted transfer students will be evaluated by the Office of Records and Student Information and credits accepted for transfer will, where possible, be equated with University of Alaska, Anchorage courses. Community or junior college credits accepted for transfer will apply toward the degrees in the College of Arts and Sciences subject to the transfer of credit regulations.

The Office of Admissions and Financial Aid receives graduate applications for admission until May 1 for the Fall semester and October 1 for the Spring semester for all College of Arts and Sciences graduate programs except as follows:

Applications for the Master of Science degree in Counseling Psychology are accepted until March 1 for the next academic year.

High School Preparation

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

English:	4 years with emphasis on spelling, writing, grammar, and research skills such as preparation of bibliographies.
Mathematics:	B.A. candidates—3 years with emphasis on Algebra I and II, Trigonometry, Geometry, Analysis. B.S. candidates—4 years with emphasis on Algebra I and II, Trigonometry, Geometry, Analysis.
Science:	B.A. candidates—2-3 years with emphasis in Biology, Chemistry, Physics, Geology and/or Earth Science. B.S. candidates—3-4 years with emphasis in Biology, Chemistry, Physics.
Foreign Language:	1-2 years. Suggested languages—German, Russian, Latin, Japanese, French, Spanish, Chinese, and Native Languages.
Social Sciences:	2 years with emphasis in world history, U.S. history, comparative political theory, current events, geography, cultural anthropology, and/or pre-historic archaeology.
Arts:	1-2 years with emphasis in basic and fundamental courses in Music and Art with more advanced courses dependent upon student's particular interest.
Computer Science:	1-2 years. Basic knowledge of computer science recommended for all college bound students.

The College of Arts and Sciences Degree Requirements

To earn a Bachelor of Arts, Bachelor of Science, Bachelor of Fine Arts, Bachelor of Music, or Bachelor of Social Work degree in the College of Arts and Sciences, students must complete the requirements shown below. Fulfillment of these will automatically satisfy the University's General Education Degree Requirements; however, some major programs have restricted the course options applicable within the major. Students should examine the program descriptions for the major and consult with an advisor before making final course selections.

Bachelor of Arts (total credits: 58)

Communication Skills **Credits**

Spch 111 3
Engl 111 3
Engl 211, 213, or 311 3

Reasoning Skills
CS 105, 106, 107, 108, Ling 110, or Phil 101 3

Quantitative Skills
AS 300, Math 107, or 108 3

Comparative Civilizations
Hist 101 and 102 6
Anth 250 3

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

Natural Sciences
Seven credits from the following including two sciences and one credit in lab: Astr 103, 104, Biol 107, 108, Chem 105, 106, 120, 121, Geol 111, 112, Phys 103, 104, 211, 212 7

Arts and Letters
(disciplines other than the one chosen for the humanities sequence)
Art 160, Mus 122, or Thr 111 3
Engl 121 or Phil 201 3

Humanities Sequence
(any sequence not in the major)
Art 261-262, Engl 201-202, Mus 221-222, or Phil 211-212 6

Bachelor of Science (total credits: 58)

Communication Skills **Credits**
Spch 111 3
Engl 111 3
Engl 211, 213, or 311 3

Reasoning Skills
CS 105, 106, 107, 108, Ling 110, or Phil 101 3

Quantitative Skills
AS 300 or 307 3
Math 200 or 272 3-4

Comparative Civilizations
Hist 101 and 102 6
Anth 250 3

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 9

Natural Sciences
Sixteen credits from the following including six credits in two disciplines and two credits in lab: Astr 103, 104, Biol 107, 108, 215, 239 252, 271, Chem 105, 106, 120, 121, Geol 111, 112, Phys 103, 104, 211, 212 16

Arts and Letters
Art 160, Mus 122, or Thr 111 3
Engl 121 or Phil 201 3

Electives

Electives which may be applied toward the BA or BS degrees in the College of Arts and Sciences include all courses (or their evaluated equivalents) which are:

1. listed among the course offerings of the College in the catalog; or
2. applicable to the requirements of majors in the College or approved minors.

If the major department approves, up to 18 credits of electives may be applied to the BA or BS degrees, provided that not more than 6 of the credits are in lower-division vocational/technical courses not offered by the College and that no more than 6 of the credits are in physical education or recreation courses. Courses in addition to the above may, with the written approval of the major department and the dean, be applied to subject requirements but not to credit requirements. Questions concerning the acceptability of transfer credits for meeting these requirements should be directed to the Office of the Dean of the College.

Bachelor of Fine Arts (total credits: 38)

Oral Communication **Credits**
Spch 111 3

Written Communication
Engl 111 and Engl 211 or 213 or 311 6

Reasoning Skills
CS 105, 106, 107, 108, Phil 101 3

Quantitative Skills
AS 300, Math 107, 108 3

Natural Science
Including one lab.
Astr 103, 104, Biol 107, 108, 111, 112, 113, 114, 239, Chem 105, 106 8

Social Science (2 disciplines)
Anth 101, 200, 202, Econ 201, 202, Just 110, JPC 101, PS 101, 102, Psy 111, Soc 101, SWK 106 6

Arts
Mus 122, Thr 111 3

Humanities (2 disciplines)
Engl 121, Phil 201, Hist 101, 102, Engl 201, 202, Mus 221, 222, Phil 211, 212. 6

Bachelor of Music (total credits: 58)

Oral Communication **Credits**
Spch 111 3

Written Communication
Engl 111 3
Engl 211, 213, 311 3

Reasoning Skills
CS 105, 106, 107, 108, Ling 110, Phil 101 3

Quantitative Skills
AS 300, Math 107, 108 3

Natural Sciences
(2 disciplines: one lab.)
Astr 103, 104, Biol 107, 108, Chem 105, 106, 120, 121, Geol 111, 112, Phys 103, 104, 211, 212 7

Social Sciences
Anth 250 3
Anth 101, 202, Econ 201, 202, JPC 101, Just 110, PS 101, 102, Psy 111, Soc 101, SWK 106 15

Arts
Art 160, Thr 111 3

Humanities
Engl 121, Phil 201 3
Hist 101, 102 6
Art 261-262 or Engl 201-202 or Phil 211-212 6

Bachelor of Social Work (total credits: 49)

Oral Communication Skills **Credits**
Spch 111, 241 3

Written Communication Skills
Engl 111 3
Engl 211 or 213 3
BSW requires an additional 3 credits of upper division English Composition selected from Engl 311, 312, or 414 3

Reasoning Skills
BA 110, CS 105, 106, 107, 108, ES 201, Ling 110, Phil 101 3

Quantitative Skills
AS 300 3

Natural Sciences

Biol 107, and 108 or 111 4

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 3

Social Sciences

(At least 3 disciplines outside the major)

Anth 101, 200, 202, 250, Econ 201, 202, JPC 101, Just 110, 250, 330, Ling 101, PS 101, 102, 311, 312, Psy 111, 150, Soc 101, 106, 201, 202, 222, 342, SWK 106 12

Arts

Art 160, 261, 262, 367, JPC 367, Mus 122, 221, 222, Thr 111, 311, 312, 411, 412 3

Humanities

(at least two disciplines outside the major)

Engl 121, 201, 202, 306, 307, Fren 101, 102, Hist 101, 102, 131, 132, 341, JPC 215, Phil 201, 211, 212, 301, Span 101, 102 9

The courses listed in the Arts, except Art 160, Mus 122, and Thr 111, may be taken to fulfill the Humanities requirements; however, no course may be double-counted.

MINORS

A minor from the College of Arts and Sciences will consist of a minimum of eighteen credits, at least six of which will be upper-division. Refer to each discipline for specific courses required.

Anthropology

Anthropology is the study of human diversity on a cross-cultural basis, aimed at achieving both scientific and humanistic educational goals. Anthropology is comprised of four sub-fields: socio-cultural anthropology, biological anthropology, archaeology, and linguistics.

Archaeology looks into the past in an attempt to understand the systematic relationship between people, environment, and cultural behavior.

Socio-cultural anthropology examines cultural systems to discover not only the rich diversity of human adaptation to environments and ways of being human, but also regularities of adaptive strategies and social structures.

Biological anthropology looks at the physical evolution of mankind.

Anthropological linguistics provides an overview of the development of language families, the relationship between culture and language, and methods of recording unwritten languages. This holistic approach to the study of man makes anthropology unique among the behavioral sciences.

BACHELOR OF ARTS
BACHELOR OF SCIENCE

1. Complete the General University Requirements, on pp. 67-74 and the College of Arts and Sciences Degree Requirements on pp. 77-81.
2. Complete 36 credits of Anthropology, half of which must be in upper-division courses.
3. Complete one statistics course (usually AS 300 or 307).
4. Complete courses for major specialty:

Required courses for the major (15 credits):

	Credits
Anth 202—Cultural Anthropology	3
Anth 205—Biological Anthropology	3
Anth 210—Introduction to Anthropological Linguistics	3
Anth 211—Fundamentals of Archaeology	3
Anth 260—Old World Archaeology	3
SELECT 4 OF THE ABOVE COURSES	
Anth 410—History of Anthropology (Required)	3

Select three **ethnographic area** courses from the following (9 credits):

Anth 200—Natives of Alaska	3
Anth 326—Arctic Ethnology	3
Anth 333—Peoples and Cultures of Southeast Asia	3
Anth 335—Native North Americans	3
Anth 435—Northwest Coast Cultures	3

Two of the above course requirements can be selected from the following archaeology courses which have a geographical focus:

Anth 312—North American Archaeology	3
Anth 316—Arctic Archaeology	3

Select two courses from the following **topical/theoretical** courses (6 credits):

Anth 340—Urban Anthropology	3
Anth 351—Culture Dynamics	3
Anth 354—Culture and Ecology	3
Anth 361—Language and Culture	3
Anth 400—Anthropology of Religion	3
Anth 420—Economic Anthropology	3
Anth 440—Structures of an Alaskan Native Language	3
Anth 456—Anthropology and the Law	3
Anth 480—Analytical Techniques in Archaeology	3

Other courses may be petitioned to apply toward the ethnographic area or topical/theory area requirements depending upon the subject matter of the course.

5. A total of six credits in elective Anthropology courses is required. Any course in Anthropology, including Anth 101, and Anth 250, may be applied toward the elective requirement.
6. At least 48 upper-division credits are required to graduate.
7. A total of 120 credits is required for the degree.

SENIOR THESIS OPTION

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

MINOR IN ANTHROPOLOGY

A total of 18 credits in Anthropology is required, with at least six credits being at the upper-division level. Two courses (six credits) must be selected from the following:

	Credits
Anth 101—Introduction to Anthropology	3
Anth 202—Cultural Anthropology	3
Anth 205—Biological Anthropology	3
Anth 210—Introduction to Anthropological Linguistics	3
Anth 211—Fundamentals of Archaeology	3

Anth 260—Old World Archaeology. 3

At least one course must be from either the **ethnographic area** or the **topical/theoretical** area, as specified above for majors in Anthropology.

Courses in Anthropology

ANTH 101 **3 Credits**
INTRODUCTION TO ANTHROPOLOGY (3 + 0)
The fundamentals of the four sub-fields of anthropology, archaeology, cultural anthropology, biological anthropology and linguistics. Recommended for nonmajors. (BA-S)

ANTH 200 **3 Credits**
NATIVES OF ALASKA (3 + 0)
Ethnohistory of Alaska Natives including environmental setting, linguistic subdivisions, cultural variations, and contact with other groups.

ANTH 202 **3 Credits**
CULTURAL ANTHROPOLOGY (3 + 0)
Introduction to the methods, theories, and fundamental concepts of the study of cultural systems. Serves as a foundation for upper-division courses in cultural anthropology.

ANTH 205 **3 Credits**
BIOLOGICAL ANTHROPOLOGY (3 + 0)
An introductory course including the behavior, genetics, classification, and evolution of man and the other primates as well as the distribution, morphological and physiological adaptations of human populations.

ANTH 210 **3 Credits**
INTRODUCTION TO ANTHROPOLOGICAL LINGUISTICS (3 + 0)
Introduction to concepts in anthropological linguistics. This course examines approaches to representing structures of the language of the world and such topics as folk taxonomies, typologies, kinship, communicative interaction, and language change and variation, all in relation to cultures and societies.

ANTH 211 **3 Credits**
FUNDAMENTALS OF ARCHAEOLOGY (3 + 0)
Basic concepts, theories, and methods of archaeology and an overview of its historical development. This course will prepare the student for summer field schools and upper-division courses in archaeology.

ANTH 250 **3 Credits**
THE RISE OF CIVILIZATION (3 + 0)
A survey of the emergence of civilization in human cultural development. Covers development of domestication, urbanization, trade, and state formation in a comparative framework. Emphasis is on non-Western civilizations: China, India, Southeast Asia, Mesoamerica, South America, and Africa.

ANTH 260 **3 Credits**
OLD WORLD ARCHAEOLOGY (3 + 0)
Tracing human developments in Asia, Africa, and Europe from the origins of humanity up to the rise of the first civilizations.

ANTH 312 **3 Credits**
NORTH AMERICAN ARCHAEOLOGY (3 + 0)
Tracing human developments in the New World north of Mexico up to European contact. Anth 211 recommended as prerequisite.

ANTH 316 **3 Credits**
ARCTIC ARCHAEOLOGY (3 + 0)
Origins and development of the prehistoric cultures of northern North America. Anth 211 recommended as a prerequisite.

ANTH 324 **3 Credits**
CULTURE AND PERSONALITY (3 + 0)
Examination of the relationship between culture, social institutions, and psychological variables on a cross-cultural basis. Anth 202 or Soc 101 recommended as prerequisite.

ANTH 326 **3 Credits**
ARCTIC ETHNOLOGY (3 + 0)
Ethnic groups and cultures of the circumpolar area, Siberia to Greenland.

ANTH 333 **3 Credits**
PEOPLES AND CULTURES OF SOUTHEAST ASIA (3 + 0)
Cultural variation and unifying traditions of Southeast Asian peoples; including their pre-history, early cultural influences, effects of European contact, major cultural traditions and selected current issues. Anth 202 recommended as prerequisite.

ANTH 335 **3 Credits**
NATIVE NORTH AMERICANS (3 + 0)
Traditional cultures of native North Americans, effects of contact with Europeans and contemporary adaptations. Anth 202 recommended as prerequisite.

ANTH 340 **3 Credits**
URBAN ANTHROPOLOGY (3 + 0)
Evolution of urban society: the preconditions of urban life technologically, demographically, and organizationally. The development of urban anthropology. A consideration of the major theories related to urban ecology and urbanization in the developing world, with special attention to the impact of migration. Current problems and research methods examined. Prerequisite: Anth 202 recommended.

ANTH 351 **3 Credits**
CULTURE DYNAMICS (3 + 0)
Processes of cultural change with selected case studies, including cultural evolution, diffusion, acculturation, innovation, revitalization movements, modernization and planned change. Anth 202 recommended as prerequisite.

ANTH 354 **3 Credits**
CULTURE AND ECOLOGY (3 + 0)
Anthropological approaches to the relationships between cultural and ecological systems. The notion of culture as an adaptive system and the role of various cultural subsystems in different adaptations. Intensive study of selected cases provides empirical grounding for theoretical formulations. Prerequisite: Anth 202.

ANTH 361 **3 Credits**
LANGUAGE AND CULTURE (3 + 0)
Study of the relationship between language and culture with coverage of such topics as language variation, meaning in culture, taxonomies, and phonemic principles.

ANTH 371 **3 Credits**
SELECTED TOPICS IN ANTHROPOLOGY (3 + 0)
Topic varies. May be taken repeatedly for credit.

ANTH 400 **3 Credits**
ANTHROPOLOGY OF RELIGION (3 + 0)
Descriptive and comparative study of religious phenomena in traditional societies including myth, ritual, magic, witchcraft, shamanism. Anth 202 recommended as prerequisite.

ANTH 403 **3 Credits**
ANTHROPOLOGICAL PERSPECTIVES ON EDUCATION (3 + 0)
Anthropological approaches to education as behavioral transmission. The role of formal and non-formal educational systems in different cultural systems. Anthropological perspectives on "schooling," including extensive use of case study materials. Anth 202 recommended as prerequisite.

ANTH 410 **3 Credits**
HISTORY OF ANTHROPOLOGY (3 + 0)
Development of the science of Anthropology, stressing the leaders in the field and the theories developed. Prerequisite: Anth 202 or permission of instructor.

ANTH 420 **3 Credits**
ECONOMIC ANTHROPOLOGY (3 + 0)
Anthropological approaches to the production, distribution, and consumption of resources in human cultural systems. The organization and operation of preindustrial economics in relation to other cultural subsystems. Internal and external models of economic development. Anth 202 recommended as prerequisite.

ANTH 427 **3 Credits**
CONTEMPORARY ALASKAN ISSUES (3 + 0)
Analysis of contemporary issues among Alaskan populations and approaches taken in resolving them.

ANTH 430 **3 Credits**
FIELD METHODS IN CULTURAL ANTHROPOLOGY (3 + 0)
Methods for field work in cultural anthropology, focusing on both quantitative and qualitative research strategies. Prerequisite: Anth 202.

ANTH 431 **4 Credits**
FIELD METHODS IN ARCHAEOLOGY (1 + 9)
Introduction to the basic techniques of archaeological data recovery and recording, laboratory processing and preliminary analysis of archaeological material. Taught summers in a field situation. May be repeated once for credit. Prerequisite: Permission of instructor.

ANTH 435 **3 Credits**
NORTHWEST COAST CULTURES (3 + 0)
An intensive appraisal of peoples of the Northwest Coast, emphasizing various interpretations of cultural history, cultural variation and cultural contact. Prerequisite: Anth 202 or permission of instructor.

ANTH 440 **3 Credits**
STRUCTURES OF AN ALASKAN NATIVE LANGUAGE (3 + 0)
Survey of the grammar of a native Alaskan language, to include phonology, syntax, and semantics. As feasible, work with a native speaker on selected grammatical problems. Language studies will vary each semester.

ANTH 456/JUST 456 **3 Credits**
ANTHROPOLOGY AND THE LAW (3 + 0)
This course will study cross-cultural variations in forms of social control or law, including traditional Alaskan Native forms. Moving beyond the purely theoretical concerns of law cross-culturally, this course will investigate legal service delivery problems in cross-cultural settings, drawing upon both anthropological knowledge and jurisprudence. Ways for improving legal service delivery systems will be examined.

ANTH 461 **3 Credits**
PHONETICS AND PHONOLOGY (3 + 0)
Study of the sounds and specific organizing principles underlying the phonetics and phonemics of human languages in both articulatory and distinctive feature frameworks. Prerequisite: Permission of instructor.

ANTH 463 **3 Credits**
SYNTAX AND SEMANTICS (3 + 0)
Study of the syntactic and semantic structures of natural languages and the ways form and meaning are represented in grammar in words, sentences, and discourse structures. Some exploration of the concept of a cultural grammar and the ways meanings and beliefs are acquired by people in communicating with each other.

ANTH 480 **3 Credits**
ANALYTICAL TECHNIQUES IN ARCHAEOLOGY (1 + 6)
Methods and techniques of description, classification, and analysis of archaeological data. Laboratory work with archaeological specimens and data is emphasized. May be repeated once for credit. Prerequisite: Permission of instructor.

Applied Statistics

AS 300 **3 Credits**
ELEMENTARY STATISTICS (3 + 0)
Measurement, sampling, measures of central tendency, dispersion, and position, frequency distributions, regression and correlation, probability, binomial and normal distributions, estimation, hypothesis testing, t-, chi-square, and F-distributions.

AS 307 **3 Credits**
PROBABILITY AND STATISTICS (3 + 0)
Probability, counting, random variables, multivariate random variables, discrete distributions, continuous distribution, expectations, descriptive statistics, correlation and regression, estimation, hypothesis testing. Prerequisite: Math 200

AS 308 **3 Credits**
INTERMEDIATE STATISTICS (3 + 0)
Introduction to statistical experimentation and research methods. Contingency tables and chi-square tests of association and independence. Introduction to

Analysis of Variance (ANOVA); one-way and two-way factorial designs. Multiple regression and correlation. Introduction to non-parametric methods including sign test, runs test, Mann-Whitney U-test, etc., SPSS will be used as a tool to aid calculations required for many of the techniques. Each student will be expected to complete a research project as part of the course requirement. Prerequisite: AS 300 or AS 307 or equivalent.

AS 402 **3 Credits**
SCIENTIFIC SAMPLING (3 + 0)
Sampling methods, including simple random stratified and systematic estimation procedures, including ratio and regression method; special area and point sampling procedures; optimum allocation. Prerequisite: AS 300 or AS 307.

AS 601 **3 Credits**
STATISTICAL METHODS (3 + 0)
Introduction to statistical experimentation and research methods, measurement, sampling, measures of central tendency, dispersion, regression and correlation, hypothesis testing, contingency tables, and chi-square tests, ANOVA, multiple regression, and non-parametric methods. SPSS will be used as a tool to aid calculations for many of the techniques. Each student will have a research project as a requirement. Prerequisite: AS 300 or equivalent.

Art

Art gives form to human experience; it expresses the entire range of thought and feeling.

Affirming the belief that knowledge of the arts is an indispensable part of any broad education, the Art Department offers a wide range of experiences designed to encourage independent thinking and creativity and to develop an appreciation of man's artistic achievements from pre-history to the present.

The Art Department discerns three distinct functions for art offerings in Anchorage: training of would-be artists—painters, sculptors, printmakers, craftsmen and designers; training of art teachers for public and private elementary and secondary schools; and supplying supplementary training in the arts and crafts for students who wish to enrich their lives through the study of art but who do not wish a degree.

BACHELOR OF ARTS

1. Complete the General University Requirements on pp. 67-74 and the College of Arts and Sciences Degree Requirements on pp. 77-81.
2. Complete a minimum of 39 credits in art courses. A maximum of 54 credit hours in art courses may be credited toward the degree.
3. Complete the following required art courses.

	Credits
Lower Division	
Art 105—Beginning Drawing	3
Art 205—Intermediate Drawing	3
Art 161—Two-Dimensional Design	3
Art 163—Three-Dimensional Design	3
Art 261-262—History of World Art	6
Art 211—Beginning Sculpture	3
Art 213—Beginning Painting	3
One Elective (Art) chosen from:	
Art 201—Beginning Ceramics	3
Art 207—Beginning Printmaking	3
Art 224—Introductory Photography	3
	Total 27
Upper-Division (300 level and above)	
Complete a sequence of 3 courses in one of six areas	9
Drawing	
Printmaking	
Sculpture	
Ceramics	
Photography	
Upper-Division Art History	3
	Total 12

Art majors with a concentration in Photography are required to have Introductory and Intermediate Photography but are not required to take Beginning Sculpture or the three (3) credit lower-division studio elective. The upper-division sequence in studio will consist of 3 courses in upper-division photography. Art 367—History of Photography will fulfill the upper-division art history requirement.

4. Transfer students who are candidates for the BA degree with a major in Art must complete a minimum of 18 credits in art courses while in residence.
5. At least 48 upper-division credits are required to graduate.
6. A total of 130 credits is required for the degree.

MINOR IN ART

A minor in Art consists of 18 credits, with at least six upper-division, including the following:

Art History (Art 261 or 262)	3
Design (Art 161, 163)	3
Drawing (any course)	3
Studio (any regular studio course)	6
Art History or Studio	3
	Total 18

ART PROGRAM FOR TEACHERS

Students who are preparing to teach Art should consult the dean of the School of Education con-

cerning requirements for an Education minor and attendant certification for teaching.

BACHELOR OF FINE ARTS

The BFA is a professionally oriented degree designed to prepare students for careers in Art. Enrollment in the BFA program is recommended only for those students willing to make the considerable commitment of time and energy necessary to strive for professional competence in their major area. As a complement to the students' involvement, the faculty of the Art Department strive to create an environment in which the students can develop to the fullest of their potential.

Admission to the BFA program, termination from it, and granting of the degree are done at the discretion of the BFA Committee. Students desiring to enter the BFA program must: 1) have been officially admitted to the College of Arts and Sciences; 2) have completed all lower-division art requirements; and 3) have been enrolled at the University of Alaska, Anchorage for one semester. They then may submit a letter to the BFA Committee stating their qualifications and objectives. They may obtain detailed instructions for BFA applications at the Art Department office.

A minimum of 24 upper-division credits in one art discipline including the thesis credits constitutes a major. A nine credit minor should be earned in a second art area. Transfer students must complete a minimum of 24 art credits in residence to be eligible for the degree.

Students in the BFA program are expected to maintain a 3.00 GPA in their major and must also maintain satisfactory academic standing in all courses. However, grades shall not be the sole criteria for judging performance in the program.

Seniors must submit a thesis project to the Art Department's BFA Committee for approval prior to graduation. Normally this project is a one-person exhibition during the senior year. Students receive credit for this by registering for Art 499—Thesis. This course may be repeated once for credit.

DEGREE REQUIREMENTS

1. Complete the General University Requirements on pp. 67-74.
2. Complete the College of Arts and Sciences Degree Requirements for the BFA on pp. 79-80.
3. Major Requirements:

   Complete a minimum of 72 credits in art courses to include the following. (A maximum of 84 credits in art may be credited toward the degree.)

   a. Required art courses at lower-division level as listed in number 3 under BA in Art. 27
   b. Upper-division art history 6
   c. Upper-division major concentration . . . 21
   d. Upper-division minor concentration 9
   e. Upper-division Art electives 6
   f. Thesis project. . . . . 3 or 6

4. At least 48 upper-division credits are required to graduate.
5. A total of 130 credits is required for the degree.

Courses in Art

ART 102 **3 Credits**
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 105 **3 Credits**
BEGINNING DRAWING (2 + 3)
Introduction to basic elements in drawing. Emphasis on a variety of techniques and media.

ART 160 **3 Credits**
ART APPRECIATION (3 + 0)
Designed to stimulate thought and develop an appreciation of all the visual arts. Emphasis is on how art is useful in everyday life, how it speaks, and what it means. No prerequisites.

ART 161 **3 Credits**
TWO-DIMENSIONAL DESIGN (2 + 3)
Fundamentals of form, which includes principles of composition, organization, structure, and the basic color theory.

ART 163 **3 Credits**
THREE-DIMENSIONAL DESIGN (2 + 3)
Employing such materials as paper, card, wood, sheet metal, plastic and wire, and using simple hand and machine techniques this course will explore design in three dimensions. This exploration will be directed by projects that will develop the awareness and skills of the student. The course will seek to stimulate discussion and analysis of three-dimensional perception.

ART 201 **3 Credits**
BEGINNING CERAMICS (2 + 3)
Introduction to the making and firing of clay objects. Study of clay methods of forming decorations, glazing, and firing. Prerequisite: Art 163

ART 205 **3 Credits**
INTERMEDIATE DRAWING (2 + 3)
Exploration of composition and creative interpretation of subjects. Prerequisite: Art 105.

ART 207 **3 Credits**
BEGINNING PRINTMAKING (2 + 3)
Introduction to the concepts and techniques of printmaking. Focusing on the following major processes: collagraphy, linocut, woodcut, wood engraving, intaglio

(etching, engraving, despoint, aquatint) or serigraphy (silkscreen, stencil). Prerequisite: Art 105, 161.

ART 211 **3 Credits**
BEGINNING SCULPTURE (2 + 3)
The fundamental sculptural elements of form, mass, volume, scale, material and surface are explored through assigned projects. The course will acquaint the student artist with the tools, techniques, and materials available to the sculptor. Prerequisite: At least one 100 level studio art course or permission of instructor.

ART 213 **3 Credits**
BEGINNING PAINTING (2 + 3)
Investigation of basic materials and techniques in oil or acrylic painting. Prerequisite: Art 105 or permission of instructor.

ART 224/JPC 203 **3 Credits**
INTRODUCTORY PHOTOGRAPHY (2 + 3)
Basic principles of photography. How the camera functions and the utilization of these functions for artistic expression. Processing and printing black and white film. Laboratory and classroom demonstrations.

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

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

ART 301 **3 Credits**
INTERMEDIATE CERAMICS (2 + 3)
A continuation of basic ceramics with an emphasis on the potter's wheel, glaze calculations and plaster as related to pottery. May be repeated once for credit. Prerequisite: Art 201 or permission of instructor.

ART 305 **3 Credits**
ADVANCED DRAWING (2 + 3)
Development and refinement of individual problems in drawing. May be repeated once for credit. Prerequisite: Art 205 or permission of instructor.

ART 307 **3 Credits**
INTERMEDIATE PRINTMAKING (2 + 3)
Continued development of techniques and creative interpretation in selected graphic areas. May be repeated for credit once. Prerequisite: Art 207.

ART 311 **3 Credits**
INTERMEDIATE SCULPTURE (2 + 3)
Exploration of the sculptural idea will be directed through assigned projects, lectures, demonstrations, field trips, discussions and critiques. Hand and machine tool processes in wood and metal will be available to the student artist. The manifesto for the course is that sculpture is the realization of concepts through sculptural processes. May be repeated for credit once. Prerequisite: Art 211 or permission of instructor.

ART 313 **3 Credits**
INTERMEDIATE PAINTING (2 + 3)
Continued development of expressive skills in painting in any media. Emphasis on pictorial and conceptual problems. May be repeated for credit once. Prerequisites: Art 205 and Art 213.

ART 321 **3 Credits**
PHOTOGRAPHIC DESIGN (2 + 3)
A photographic study of the elements of design. Line, shape, value, texture ad colors are explored two- and three-dimensionally. Photographic solutions stress variations and exploration of concepts and ingenuity in use of materials. Prerequisite: Art 324/JPC 303.

ART 322/JPC 322 **3 Credits**
EXPERIMENTAL PHOTOGRAPHY (2 + 3)
Exploration of various special effects and techniques; emphasis on creativity. May be repeated for credit once. Prerequisite: Art 324/JPC 303 or permission of instructor.

ART 323/JPC 323 **3 Credits**
COLOR PHOTOGRAPHY (2 + 3)
Advanced techniques in color transparencies and color printing; creative use of color. Prerequisite: Art 224/JPC 203.

ART 324/JPC 303 **3 Credits**
INTERMEDIATE PHOTOGRAPHY (2 + 3)
Further development of skills learned in Introductory Photography. Photographic perception or awareness, ideas and concepts, the "fine print" are areas that will be stressed. Assignments with deadlines will be given to develop discipline. Special darkroom techniques will be introduced as a tool for futher investigation. Prerequisite: Art 224/JPC 203 or permission of instructor.

ART 362 **3 Credits**
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 362 or permission of instructor.

ART 363 **3 Credits**
HISTORY OF MODERN ART (3 + 0)
A study of the development of 19th and 20th Century art, aimed at developing understanding and appreciation in the student. Prerequisite: Art 262 or permission of instructor.

ART 364 **3 Credits**
ITALIAN RENAISSANCE ART (3 + 0)
The development of the Renaissance from early Florentine beginnings to the High Renaissance of Venice. Study of the works of such artists as Giotto, Massacio, Michelangelo, Leonardo DaVinci, Titian, etc. Prerequisite: Art 261 or permission of instructor.

ART 365 **3 Credits**
NATIVE ART OF ALASKA (3 + 0)
A study of the art forms of the Eskimo, Indian, and Aleut ranging from pre-history to the present; emphasis on the changes in forms through the centuries.

ART 366 **3 Credits**
HISTORY OF ASIAN ART (3 + 0)
An introduction to the visual arts of East Asiatic cultures from prehistoric to modern times; selected works of painting, sculpture, architecture and other arts studied in relation to the culture in which they were produced. Prerequisite: Art 261.

ART 367/JPC 367 **3 Credits**
HISTORY OF PHOTOGRAPHY (3 + 0)
This course will examine the evolution of photography from 1816 to the present time. This evolution will be considered in terms of style, approach, content and form and will examine the major trends which have dominated the evolution of photography in Europe and America.

ART 370 **3 Credits**
ARTISTS' VIEWS (3 + 0)
A series of lectures and presentations by local artists of their work and their philosophy. A serious, in-depth look at how to look at their work, how an art historian views art, how the artist sees his work, differences between commercial and fine art, and photography as an art.

ART 401 **3 Credits**
ADVANCED CERAMICS (2 + 3)
Advanced wheel work, design of large scale ceramic murals for incorporation into architecture. Study of the practical application of ceramics in the commercial field. Advanced body and glaze calculation. May be repeated for credit once. Prerequisite: Art 301 or permission of instructor.

ART 405 **3 Credits**
EXPERIMENTAL DRAWING (2 + 3)
Further investigation, experimentation and development of ideas using contemporary materials and techniques in drawing. May be repeated for credit once. Prerequisite: Art 305 or permission of instructor.

ART 407 **3 Credits**
ADVANCED PRINTMAKING (2 + 3)
Individual development of techniques and creative processes in printmaking. May be repeated for credit once. Prerequisite: Art 307 or permission of instructor.

ART 411 **3 Credits**
ADVANCED SCULPTURE (2 + 3)
The course is designed to challenge the student artist's sculptural concepts and encourage research at the frontiers of today's sculptural concerns. Response to the assignments can be realized through performance, video and multimedia, as well as the traditional sculpture processes such as stone carving, plaster casting, welding, and wood working. Large scale semester long projects will be encouraged. May be repeated for credit once. Prerequisite: Art 311 or permission of instructor.

ART 413 **3 Credits**
ADVANCED PAINTING (2 + 3)
Experimentation and development of individual ideas and techniques in painting. May be repeated for credit once. Prerequisite: Art 313 or permission of instructor.

ART 418/ED 418 **3 Credits**
METHODS: ART IN THE ELEMENTARY SCHOOL (2 + 3)
Methods of teaching art principles, procedures, and materials for the elementary school level. Students will explore a wide variety of art media basic to elementary art curricula. Throughout the semester, students will be responsible for developing, conducting and evaluating curriculum activities. Prerequisites: Ed 332 and prerequisites thereto.

ART 423/JPC 405 **3 Credits**
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. May be repeated for credit once. Prerequisite: Art 324/JPC 303 or permission of instructor.

ART 424/JPC 402 **3 Credits**
ADVANCED PHOTOGRAPHY (2 + 3)
Designed for individual portfolio development. With instructor approval, students will establish goals and criteria for the development of images that will reflect their own individual expression. May be repeated for credit once. Prerequisite: Permission of instructor.

ART 442/ED 442 **3 Credits**
CURRICULUM AND INSTRUCTION IN SECONDARY ART (3 + 0)
Objectives, scope, sequence, and presentation of art experiences at the secondary level; recommended practices, motivational, and evaluative aspects. Prerequisites: A minimum of 18 hours in required art courses, Ed 313 and 332 and prerequisites thereto.

ART 461 **3 Credits**
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.

ART 481 **3 Credits**
ART SEMINAR (1 + 6)
A special course for students qualified for individual creative projects in various studio areas. Work is done independently of the regularly scheduled classes. Class meets weekly for group discussion and critique of projects. Separate reading assignments in connection with chosen projects. Prerequisites: Students must have completed beginning and intermediate courses in studio area. Permission of instructor required.

Astronomy

ASTR 103 **4 Credits**
INTRODUCTORY ASTRONOMY I (3 + 3)
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, etc., solar system evolution includes laboratory. Prerequisites: High school algebra and trigonometry or equivalent.

ASTR 104 **4 Credits**
INTRODUCTORY ASTRONOMY II (3 + 3)
Introduction to stellar, galactic, extragalactic astronomy. Stars, clusters, galaxies, stellar evolution, the universe as a whole, cosmology, includes laboratory.

Prerequisite: Astr 103; may be taken out of sequence but not recommended.

ASTR 685 **1 Credit**
ADVANCED TOPICS IN ASTRONOMY (1 + 0-0 + 3)
Intensive studies on narrowly defined topics in Astronomy. Emphasis on content as well as on instructional techniques. Prerequisite: Graduate standing or permission of the instructor.

Biological Sciences

Biology is traditionally thought of as the study of living things. Modern biology is certainly that, but perhaps more importantly, it is also the study of how these living things interact with the environment in which they live. The program has been designed to develop a sound understanding of the interrelationships that exist between all living things, without compromising the acquisition of a strong base knowledge and an appreciation of scientific methods.

The Biology program has among its objectives the preparation of individuals for various professional careers in health sciences, environmental sciences and, of course, in the biologically-oriented basic sciences. Various courses of study are available to provide a basis for appropriate career development without compromising the study of biology for its own sake. All biology course sequences, therefore, are developed around a rigorous basic science core curriculum.

BACHELOR OF ARTS

1. Complete the General University Requirements, on pp. 67-74 and the College of Arts and Sciences Degree Requirements on pp. 77-81.
2. Complete a curriculum approved by the Chairman of the Biology program, including the following minimum requirements:

   Biol 107 and 108 or equivalent, Biol 491 and at least 27 additional credits in Biology, at least 15 of which must be upper-division credits, including at least one course each in Botany, Ecology, Genetics, Microbiology, Physiology, and Zoology.
3. Chem 120 and 121 or 105 and 106 8
4. At least 48 upper-division credits are required to graduate.
5. A total of 120 credits is required for the degree.

BACHELOR OF SCIENCE

1. Complete the General University Requirements, on pp. 67-74 and the College of Arts and Sciences Degree Requirements on pp. 77-81.
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 including at least one course each in Botany, Ecology, Genetics, Microbiology, Physiology, and Zoology 41
   b. Chem 105 and 106, and at least 8 credits in Organic Chemistry, including laboratory 16
3. Pre-professional students may substitute Chem 441 and 442 for eight Biology credits and should take eight credits of Physics.
4. At least 48 upper-division credits are required to graduate.
5. A total of 120 credits is required for the degree.

MINOR IN BIOLOGICAL SCIENCES

Complete 20 credits in biology, including Biol 107 and 108 or equivalent, a genetics and an ecology course, and at least six upper-division credits. Those students needing additional breadth in their minor may, in certain circumstances, petition to modify these requirements.

MASTER OF SCIENCE—BIOLOGICAL SCIENCES

Admission Requirements

To be admitted to the Master of Science program, an applicant must:

1. Submit official transcripts of all college level work;
2. Have at least a 3.0 GPA in major undergraduate work;
3. Submit three letters of recommendation;
4. Submit a one-page statement of intent and goals;
5. Submit official verbal, quantitative and advanced (Biology or Chemistry) GRE test scores;
6. Provide an official statement of educational equivalency for a foreign degree or course work.

Acceptance is based on, a) approval by a majority of departmental faculty; b) a faculty member's decision to personally sponsor and direct a prospective graduate student; and c) acceptance

by the graduate admissions committee. It is therefore strongly recommended that prospective students contact at least one faculty member at an early stage in their admissions process.

Applications for the Master of Science degree in Biological Sciences are accepted until May 1 for the Fall semester, and October 1 for the Spring semester. Established standards are continually being refined by the graduate admissions committee, and all students are strongly encouraged to contact the chairman of the committee for updated information.

Degree Requirements

1. Completion of the General University Requirements.
2. Completion of the specific program degree requirements, as shown below.
3. Completion of oral and written comprehensive examinations.
4. Completion of thesis or research defense, as applicable.

Program Degree Requirements

The graduate program in Biological Sciences offers two programs of study leading to the Master of Science degree. One, the thesis option, requires a thesis that is the result of research performed either under the supervision of our faculty or by a qualified and approved adjunct advisor from outside the University. The other, the non-thesis option, requires from three to six credits of research and a research report instead of a thesis. Although there is a choice of options, this decision should be made only after consultation with an advisor, or after initial meetings with each member of the Biology faculty. Additional information is provided in the Graduate Student Guidelines, and is available upon request from the secretary of the Department of Biological Sciences.

The following specified requirements are considered to be minimum, particularly in light of any remedial work viewed necessary by your graduate studies committee. The choice of degree program options may be declared as part of a student's statement of research or study goals during application for admission and can be revised later as circumstances dictate. Specific course requirements will be determined in consultation with the graduate studies committee, and will be incorporated in the program of study.

	Credits
1. MASTER OF SCIENCE—THESIS OPTION	
Thesis and Research	not more than 12
600 level credits	not less than 9
Seminar (Biology 691)	2
Teaching Practicum (Biology 690)	2
Approved credits to total	30 minimum
2. MASTER OF SCIENCE—NON-THESIS OPTION	
Research	3 to 6
600 level credits	not less than 9
Seminar (Biology 691)	2
Teaching Practicum (Biology 690)	2
Approved credits to total	30 minimum

Courses in Biology

BIOL 107 **3 Credits**
FUNDAMENTALS OF BIOLOGY (3 + 0)
Basic principles of living systems chemical and structural bases; major metabolic mechanisms; reproduction and development; genetics; evolution and diversity; environmental relationships; mechanisms for stability of cells, organisms, and populations. An introductory course open to students in all curricula.

BIOL 108 **1 Credit**
FUNDAMENTALS OF BIOLOGY (0 + 3)
Laboratory part of Biol 107. Exercises are designed to illustrate principles and concepts developed in Biol 107. Prerequisite: Concurrent registration or credit in Biol 107.

BIOL 111 **4 Credits**
BIOL 112 **4 Credits**
HUMAN ANATOMY AND PHYSIOLOGY I, II (3 + 3) (3 + 3)
An introduction to human structure and function. The integumentary, skeletal, muscular, nervous, and endocrine systems are considered. Accepted for Biology major credit only by petition.

A continuation of Biol 111. The circulatory, respiratory, digestive, excretory, and reproductive systems are considered. Prerequisite: Biol 111 or permission of instructor.

BIOL 113 **3 Credits**
LECTURES IN HUMAN ANATOMY AND PHYSIOLOGY (3 + 0)
An introduction to human structure and function. The integumentary, skeletal, muscular, nervous, and endocrine systems are considered. Accepted for Biology majors only by petition. This course does not have a lab session with it and does not satisfy the course requirements for Nursing Science majors.

BIOL 114 **3 Credits**
LECTURES IN HUMAN ANATOMY AND PHYSIOLOGY (3 + 0)
A continuation of Biol 113. The circulatory, respiratory, digestive, excretory, and reproductive systems are considered. This course does not have a lab session with it and does not satisfy the course requirements for Nursing Science majors. Prerequisite: Biol 111 or 113 or permission of instructor.

BIOL 215 **4 Credits**
FUNDAMENTALS OF ZOOLOGY (3 + 3)
General introductory zoology with an emphasis on the morphology, ecology, and evolution of major vertebrate

and invertebrate phyla. Prerequisites: Biol 107 and 108, Chem 105, or permission of instructor. Spring.

BIOL 239 **4 Credits**
PLANT FORM AND FUNCTION (3 + 3)
Structure, function, ecology, and evolutionary patterns of the major groups of plants. Prerequisites: Biol 107 and 108.

BIOL 240 **4 Credits**
INTRODUCTORY BACTERIOLOGY FOR HEALTH SCIENCES (3 + 3)
General introductory bacteriology and virology with emphasis on those areas relating to Health Sciences, including host parasite interactions, host defense mechanisms, and epidemiology. Recommended for associate and baccalaureate health science programs. Accepted for Biology major credit only by petition. Prerequisites: Concurrent enrollment in Chem 121 and Biol 112, or 8 hours in Biology and Chemistry, or permission of instructor.

BIOL 241 **3 Credits**
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 **4 Credits**
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.

BIOL 271 **4 Credits**
PRINCIPLES OF ECOLOGY (3 + 3)
Relationships between organisms and their environments. Community and population dynamics will be stressed. Prerequisites: Biol 107 and 108; Chem 105.

BIOL 308 **3 Credits**
PRINCIPLES OF EVOLUTION (3 + 0)
An introduction to the mechanisms of, and evidence for, the evolution of living systems. The coding and transmission of genetic information in populations, population variability, change and stabilization. Prerequisites: Biol 107 and 108, 252, 271 or permission of instructor.

BIOL 309 **3 Credits**
BIOGEOGRAPHY (3 + 0)
Ecological basis and historical patterns of the distribution of plants and animals on a world-wide basis. Current theories regarding origins of these distributions are examined. Prerequisites: Biol 107 and 108, 215 and 239, or permission of instructor.

BIOL 327 **3 Credits**
PARASITOLOGY (2 + 3)
The life history and ecology of parasites of medical significance and economic importance, including diagnosis and control. Emphasis on North American parasites.

BIOL 340 **5 Credits**
GENERAL MICROBIOLOGY (3 + 6)
Biology of prokaryotic organisms and viruses, their relationships to other organisms and to the ecosystem. Prerequisites: 16 hours in Biology. Spring.

BIOL 352 **3 Credits**
HUMAN GENETICS (3 + 0)
An introduction to human genetics with emphasis on medical and social aspects. Included will be the genetics of normal traits in man, biochemical and cytogenetic diagnosis of hereditary diseases, and genetic screening and counseling. Accepted for Biology major degree requirement in Genetics only by petition; may be used as elective credit for upper-division Biology. Prerequisite: Biol 252 or permission of instructor.

BIOL 361 **3 Credits**
CELL BIOLOGY (3 + 0)
Detailed structure, including ultrastructure, and function of the cell. Isolation, composition, and biochemical properties of cell organelles. Prerequisites: Biol 252 and Chem 321 and 322 or permission of instructor.

BIOL 362 **3 Credits**
CELL BIOLOGY LABORATORY (1 + 6)
A laboratory course designed to give experience in cell and tissue culture, analysis of subcellular components, and techniques involving nucleic acids and proteins. Prerequisite: Biol 361 or permission of instructor.

BIOL 375 **3 Credits**
TERRESTRIAL ECOSYSTEMS OF THE WORLD (3 + 0)
A survey of the major terrestrial ecosystems of the world from the tropical rain forest to the Arctic tundra. Geographic distribution, climate and topography will be described as will the structure and functions of the ecosystem including biomass, productivity, and susceptibility. Prerequisites: Biol 107, 108, 271.

BIOL 378 **3 Credits**
MARINE BIOLOGY (3 + 0)
The marine environment; biology and distribution of marine plants and animals; fisheries, aquaculture and pollution. Prerequisites: Biol 107 and 108.

BIOL 401 **30 Credits**
MEDICAL TECHNOLOGY
Twelve-months medical technology internship at an approved hospital school, including work in clinical chemistry, hematology, microbiology, serology, parasitology, and histologic techniques. Prerequisites: Senior standing the Medical Technology Program and acceptance at an approved school of Medical Technology.

BIOL 403 **4 Credits**
MICROTECHNIQUE (2 + 6)
Demonstration and use of tissue techniques including procurement, preservation, embedding, sectioning, staining, microscopy, photography, and illustration. Prerequisites: Biol 107 and 108 plus 12 additional credits in Biology, or permission of instructor. Offered as demand warrants.

BIOL 416 **4 Credits**
PLANT PHYSIOLOGY (3 + 3)
A broad survey of plant physiology with emphasis on the whole plant response to environmental conditions.

Prerequisite: Biol 239, Chem 105, or graduate standing, or permission of instructor.

BIOL 418 **3 Credits**
NEUROBIOLOGY (3 + 0)
A study of nervous system functions at the cellular level; emphasis on physiology of excitable membranes and synapses. Prerequisites: Math 200, Chem 105 and 106, Biol 107 and 108, one year of Physics, or permission of instructor.

BIOL 425 **5 Credits**
INVERTEBRATE ZOOLOGY (3 + 6)
Functional anatomy and evolutionary adaptations of invertebrate animals. Prerequisites: At least 16 credits of Biology, including Biol 107 and 108.

BIOL 435 **2 Credits**
ALASKA FRESHWATER FISH (1 + 3)
Identification of juvenile and adult Alaskan fish and the adaptations of freshwater fish to seasonal stream and lake habitat components. Survival, behavior and movements of various life stages of representative Alaskan fish species in respect to stream and lake habitats will be analyzed.

BIOL 439 **3 Credits**
PLANT ECOLOGY FIELD COURSE (1 + 6)
The interactions between plants and their environment. Theory and methodology for studying the responses of plants to various environmental conditions. Normally given during the summer. Prerequisites: Biol 239, Chem 105, Graduate standing or permission of instructor.

BIOL 442 **4 Credits**
QUANTITATIVE TECHNIQUES IN MICROBIOLOGY (1 + 9)
Quantitative techniques in Bacteriology and Virology. Cell and plaque counting, quantitative measurement of microbial activity and bioassay. Advanced techniques in microscopy. Prerequisite: Biol 340 or graduate standing or permission of instructor.

BIOL 443 **4 Credits**
ENVIRONMENTAL AND ECOLOGICAL BACTERIOLOGY (2 + 6)
The role of microorganisms in the environment. Aquatic, marine, and soil microbiology and the microbiology of waste treatment, pollution, and natural decomposition and nutrient cycling processes. Prerequisites: Biol 340 and one course in Ecology.

BIOL 461 **3 Credits**
MOLECULAR BIOLOGY (3 + 0)
A 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. Prerequisite: Biol 361 or permission of instructor.

BIOL 471/CHEM 471 **3 Credits**
IMMUNOCHEMISTRY (3 + 0)
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.

BIOL 475 **3 Credits**
NORTHERN ECOSYSTEMS (3 + 0)
Analysis of the taiga and tundra ecosystems. The geography, climate and soils of tundra and taiga. Biomass and productivity of these systems, their role in the global carbon cycle, their new and traditional uses, and their susceptibility to human disturbance. Prerequisites: Biol 107 and 108, 271.

BIOL 479 **4 Credits**
PLANTS AND THEIR ENVIRONMENT (3 + 3)
Morphological, anatomical, and physiological adaptations of plants to environmental conditions characteristically encountered in the various biomes on earth. Offered alternate Fall semesters.

BIOL 487 **5 Credits**
COMPARATIVE ANATOMY OF VERTEBRATES (3 + 6)
Functional anatomy, ecology, and evolution of chordates. Prerequisites: Biol 215 or permission of instructor. Spring.

BIOL 488 **5 Credits**
VERTEBRATE DEVELOPMENTAL ANATOMY (3 + 6)
Analysis of vertebrate morphogenesis and introduction to the casual factors of development. Prerequisite: Biol 487. Offered alternate Fall semesters.

BIOL 490 **1 Credit**
INSTRUCTIONAL PRACTICUM: LABORATORY (0 + 3)
Supervised practical experience in one Biology laboratory section. Planning, presentation of material, achievement testing, and correlation with lecture under the direct supervision of department faculty. May be repeated once for credit. Prerequisite: Permission of instructor.

BIOL 491 **1 Credit**
SEMINAR (1 + 0)
Topical subjects in biology presented by faculty and undergraduate students.

BIOL 602 **2 Credits**
SYSTEMATIC BIOLOGY (2 + 0)
Classification, systematics, and taxonomy of organisms. Prerequisites: Biol 308, 425, 487. Offered as demand warrants.

BIOL 618 **3 Credits**
ADVANCED NEUROBIOLOGY (3 + 0)
Study of nervous system function at the cellular level with emphasis on quantitative description of electrical behavior of nerve membrane. Lectures concurrent with Biol 418. In addition to meeting the requirements of that course, students will study theory of electro-physiology instrumentation and will prepare a research paper detailing a current topic in excitable membrane function, including a review of recent literature and proposal for further experiments. Not available for credit to students who have completed Biol 418.

BIOL 625 **4 Credits**
ADVANCED INVERTEBRATE ZOOLOGY I (2 + 6)
Functional morphology, evolutionary adaptations and phylogeny of the invertebrates with an emphasis on feeding, respiration, circulation, excretion, and digestion. Prerequisites: Biol 425 or permission of instructor.

BIOL 626 **4 Credits**
ADVANCED INVERTEBRATE ZOOLOGY II (2 + 6)
Functional morphology, evolutionary adaptations and phylogeny of the invertebrates with an emphasis on skeletal systems, locomotion, nervous systems, and reproduction. Prerequisites: Biol 425 or Biol 625 or permission of instructor.

BIOL 641 **3 Credits**
MICROBIAL PHYSIOLOGY (3 + 0)
The principal types of autotrophic and heterotrophic microbial metabolism. Photosynthesis, nitrogen fixation, metabolism of iron, and sulfur bacteria. Fermentation, respiration, biosynthetic pathways. Prerequisites: Biol 442 or Biol 642, or Chem 444 or permission of instructor.

BIOL 642 **4 Credits**
ADVANCED QUANTITATIVE TECHNIQUES IN MICROBIOLOGY (1 + 9)
Lecture and laboratories concurrent with Biol 442. In addition to meeting all requirements for Biol 442, graduate students will be required to develop an experimental protocol using the techniques learned and to present seminars on the theoretical basis of those techniques. Not available to students who have completed Biol 442.

BIOL 661 **3 Credits**
ADVANCED MOLECULAR BIOLOGY (3 + 0)
Lectures concurrent with Biol 461. In addition to meeting all requirements for Biol 461, graduate students will be required to research the literature on a current topic in molecular biology, to submit an extensive paper summarizing their findings including designs for future experiments on the subject, and to give a seminar on the same topic. Not available for credit to students who have completed Biol 461.

BIOL 663 **3 Credits**
MOLECULAR BIOLOGY OF CANCER (3 + 0)
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 the current literature, by means of research, term papers, discussions, and seminars. Prerequisites: Biol 361 or 461 or permission of instructor.

BIOL 676 **4 Credits**
ADVANCED PHYSIOLOGICAL PLANT ECOLOGY (3 + 3)
Lecture and laboratories concurrent with Biol 479. In addition to meeting all requirements for Biol 479, graduate students will be required to carry out research using techniques learned in the course and to present seminars on the results as well as theoretical background. Not available for credit to students who have completed Biol 479.

BIOL 678 **4 Credits**
ADVANCED MARINE BIOLOGY (2 + 6)
Distribution, locomotion, feeding, reproduction, and physiology of marine organisms with an emphasis on local marine invertebrate species. Prerequisites: Biol 378, 425, or permission of instructor.

BIOL 679 **2 Credits**
CURRENT TOPICS IN MARINE BIOLOGY (2 + 0)
Current topics in Marine Biology to be presented by graduate students or faculty. May be repeated for credit.

BIOL 685 **1 Credit**
ADVANCED TOPICS IN BIOLOGY (1 + 0-0 + 3)
Intensive studies on narrowly defined topics in Biological Sciences. Emphasis on content as well as on instructional techniques. Prerequisite: Graduate standing or permission of instructor.

BIOL 690 **1 Credit**
INSTRUCTIONAL PRACTICUM (0 + 3)
Practical experience in one science laboratory section. Planning, presentation of lectures, laboratory testing and correlation with lecture materials coordinated with science faculty. May be repeated once for credit. Prerequisite: Permission of instructor.

BIOL 691 **1 Credit**
SEMINAR (1 + 0)
Topical subjects in biology presented by faculty and graduate students.

Chemistry

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

The undergraduate courses in chemistry offered at UAA are designed primarily to provide a broad knowledge of the field as a part of the program of liberal education offered by the College of Arts and Sciences. They are also designed to provide a substantial foundation in chemistry for students interested in post-graduate studies in chemistry or the other sciences, preparation for professional degrees, teaching, or a career in government or industry. Students majoring in chemistry will meet basic course requirements in inorganic, analytical, organic, physical chemistry and biochemistry.

The biochemistry option is designed for students who would prefer a more biologically-oriented approach to chemistry. During the past 25 years biochemistry has become a central scientific discipline linking the chemical, physical, and biological sciences. By applying the concepts and methods of chemistry to the problems of biology, biochemists have made great progress in explaining life in chemical terms.

BACHELOR OF SCIENCE

1. Complete the General University Requirements, on pp. 67-74 and the College of Arts and Sciences Degree Requirements on pp. 77-81.

2. Complete the following major specialty requirements:

	Credits
Chem 105-106—General Chemistry	8
Chem 212—Quantitative Analysis	5
Chem 321-322—Organic Chemistry	8
Chem 331-332—Physical Chemistry	8
Chem 402—Advanced Inorganic Chemistry	3
Chem 434—Instrumental Methods	4
Chem 491—Seminar	2
Chem 498—Individual Research	6
Math 200-201-202—Calculus	12
Math 302—Ordinary Differential Equations	3
Phys 212-212—General Physics	8

3. At least 48 upper-division credits are required to graduate.
4. A total of 120 credits is required for the degree.

BIOCHEMISTRY OPTION:

1. Complete the General University Requirements, on pp. 67-74 and the College of Arts and Sciences Degree Requirements on pp. 77-81.
2. Complete the following major specialty requirements:

	Credits
Chem 105-106—Chemistry	8
Chem 212—Quantitative Analysis	5
Chem 321-322—Organic Chemistry	8
Chem 434—Instrumental Methods	4
Chem 441-442—Principles of Biochemistry	8
Chem 461-462—Biophysical Chemistry	6
Chem 491—Seminar	2
Chem 498—Individual Research	3
Math 200-201-202—Calculus	12
Phys 103-104 or 211-212—Basic or General Physics	8
Upper-Division Biology Credits	9

3. At least 48 upper-division credits are required to graduate.
4. A total of 120 credits is required for the degree.

MINOR IN CHEMISTRY

A minor in chemistry requires completion of 20 credits in chemistry including: Chem 105, 106, 212, 321, 322.

Courses in Chemistry

CHEM 105 **4 Credits**
CHEM 106 **4 Credits**
GENERAL CHEMISTRY (3 + 3) (3 + 3)

An introduction to inorganic chemistry for science majors which includes atomic and molecular structure, chemical equations and calculations, states of matter, solutions, acids and bases, kinetics and equilibrium, oxidation reduction reactions and thermodynamics. Chem 106 also includes the principles and methods of qualitative analysis of the elements. Prerequisite: High school chemistry.

CHEM 120 **4 Credits**
SURVEY OF CHEMISTRY (3 + 3)

A course designed to introduce health science students to the chemistry of biological systems. Covers units of measurement, atomic and molecular structure, chemical bonding, radioactivity, oxidation-reduction reactions, solutions, acids, bases, buffers, and an introduction to organic chemistry. Prerequisite: High school chemistry or permission of instructor.

CHEM 121 **4 Credits**
ELEMENTARY BIOCHEMISTRY (3 + 3)

A survey of the fundamental principles of biochemistry, including structure and function of proteins, carbohydrates, lipids, and nucleic acids; the metabolic generation of energy, biosynthesis, expression of genetic information, and selected topics in molecular physiology. Prerequisite: Chem 120.

CHEM 212 **5 Credits**
QUANTITATIVE ANALYSIS (3 + 6)

General principles of chemical analysis, including introduction to volumetric and gravimetric methods, theory, problems, and laboratory. Prerequisites: Chem 105-106.

CHEM 321 **4 Credits**
CHEM 322 **4 Credits**
ORGANIC CHEMISTRY (3 + 4) (3 + 4)

A theoretical and laboratory course designed to study the important classes of carbon compounds. Modern techniques of isolation, structural determination, and methods of synthesis will be emphasized. Prerequisites: Chem 105-106 or 120-121.

CHEM 331 **4 Credits**
CHEM 332 **4 Credits**
PHYSICAL CHEMISTRY (3 + 3) (3 + 3)

A quantitative study of the kinetic theory of gases and principles of chemical thermodynamics with application to solutions, phase equilibrium and chemical equilibrium, atomic and molecular structure, electrochemistry, and chemical kinetics. Prerequisites: Chem 105-106, Math 200, and Physics 211-212. May not be taken out of sequence.

CHEM 402 **3 Credits**
ADVANCED INORGANIC CHEMISTRY (3 + 0)

A study of the theoretical aspects of structure and bonding in inorganic compounds; coordination compounds of the transition elements as well as the principles of crystal field and ligand field theory. Prerequisites: Chem 331-332.

CHEM 421 **3 Credits**
ADVANCED ORGANIC CHEMISTRY (3 + 0)

Theoretical interpretation of the physical and chemical properties of organic molecules; molecular orbital theory; spectroscopy of organic molecules; photochemical processes. Prerequisites: Chem 321-322.

CHEM 434 **3 Credits**
INSTRUMENTAL METHODS (2 + 6)

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. Prerequisites: Chem 105-106, Chem 212.

CHEM 441 **4 Credits**
CHEM 442 **4 Credits**
PRINCIPLES OF BIOCHEMISTRY (3 + 3) (3 + 3)

A study of the structure and function of proteins, carbohydrates, fats, vitamins, coenzymes, and nucleic acids, the degradative and biosynthetic metabolic pathways involving these biomolecules, replication of genetic information, regulation of gene expression, and protein biosynthesis. Other topics to be discussed include enzyme kinetics, photosynthesis, muscle biochemistry, active transport, and hormone action. Prerequisites: Chem 321-322 or permission of instructor. May not be taken out of sequence.

CHEM 450 **4 Credits**
ENVIRONMENTAL CHEMISTRY (3 + 3)

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. The course is an introduction to Environmental Chemistry for all science majors. Prerequisite: Junior or Senior standing in Biology, Chemistry or Engineering.

CHEM 461 **3 Credits**
CHEM 462 **3 Credits**
BIOPHYSICAL CHEMISTRY (3 + 0) (3 + 0)

Theoretical study of the hydrodynamic, thermodynamic, and optical properties and techniques used to elucidate structure, conformation, and function of biological macromolecules.

CHEM 471/BIOL 471 **3 Credits**
IMMUNOCHEMISTRY (3 + 0)

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.

CHEM 490 **1 Credit**
INSTRUCTIONAL PRACTICUM: LABORATORY (0 + 3)

Supervised practical experience in one Chemistry laboratory section. Planning, presentation of material, achievement testing, and correlation with lecture shall be under the direct supervision of department faculty. This course is required of graduate students and open to others with instructor approval only. It may be repeated once for credit. Permission of instructor.

CHEM 491 **1 Credit**
SEMINAR (1 + 0)

Topical subjects in chemistry and biochemistry presented by faculty and undergraduate students.

CHEM 634 **4 Credits**
ADVANCED INSTRUMENTAL METHODS (2 + 6)

Lectures concurrent with Chem 434 (Instrumental Methods). In addition to meeting all requirements for Chem 434, 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. Not available for credit to students who complete Chem 434. Prerequisites: Chem 105-106, Chem 212.

CHEM 641 **2 Credits**
METABOLISM AND FATE OF ANTHROPOGENIC COMPOUNDS (2 + 0)

An advanced topics course in biochemistry; oxidative and reductive metabolism of a variety of anthropogenic compounds, the roles of hydration and conjugation reactions, pharmocokinetics, and chemical carcinogenesis will be covered in this course. Roles of enzyme and membrane structure in determining the fate of compounds will also be considered. Prerequisite: Permission of instructor.

CHEM 642 **2 Credits**
ENZYME STRUCTURE AND MECHANISM (2 + 0)

An advanced topic course in biochemistry multisubstrate reaction kinetics, King-Altman analysis and product inhibition patterns will be applied to the relationship of protein structure and catalytic mechanism. Prerequisites: Chem 442 or permission of instructor.

CHEM 643 **2 Credits**
STRUCTURE AND FUNCTION OF BIOLOGICAL MEMBRANES (2 + 0)

An advanced topics course in biochemistry; structural characterization of cellular membranes, and the role in transport, bioenergetic, photosynthesis, and modulation of enzyme activity. Prerequisite: Chem 442 or permission of instructor.

CHEM 650 **2 Credits**
TOXIC METAL AND ORGANIC CHEMICALS IN THE ENVIRONMENT (2 + 0)

An advanced topics course in environmental chemistry; distribution, environmental effects and current analytical techniques associated with trace metals and organics from natural and anthroprogenic sources. Role in both acute and long term toxic effects will be considered. Prerequisite: Chem 434 or Chem 450.

CHEM 661 **3 Credits**
ADVANCED BIOPHYSICAL CHEMISTRY (3 + 0)

Lectures concurrent with Chem 461 (Biophysical Chemistry). In addition to meeting all requirements for Chem 461, graduate students will be required to research the literature on a current topic in biophysical chemistry, to submit a research paper summarizing their findings including designs for future experiments on the subject, and to give a seminar on this topic. Not available for credit to students who complete Chem 461.

CHEM 662 **3 Credits**
ADVANCED BIOPHYSICAL CHEMISTRY (3 + 0)

Lectures concurrent with Chem 462 (Biophysical Chemistry). In addition to meeting all requirements for Chem 462, graduate students will be required to research the literature on current topics in the area of biophysical techniques, to submit a research paper sum-

marizing their findings including designs for future experiments on the subject, and to give a seminar on the topic. Not available for credit to students who complete Chem 462.

CHEM 663 **2 Credits**
OXYGEN TRANSPORT PROTEINS (2 + 0)
An advanced course in Biophysical Chemistry; focus will be on the structure-function relationship of oxygen transport proteins including vertebrate and invertebrate hemoglobins, hemocyanins and hermerythrin. Prerequisite: Permission of instructor.

CHEM 685 **1 Credit**
ADVANCED TOPICS IN CHEMISTRY (1 + 0-0 + 3)
Intensive studies on narrowly defined topics in Chemistry. Emphasis on content as well as on instructional techniques. Prerequisite: Graduate standing or permission of the instructor.

CHEM 691 **1 Credit**
SEMINAR (1 + 0)
Topical subjects in chemistry and biochemistry presented by faculty and graduate students.

Computer Science

The Mathematical Sciences Department offers courses covering the major areas of computer science. These courses constitute the basis for an undergraduate major which prepares students for a variety of professional and technical careers in business, industry, and government or for graduate work leading to advanced degrees. In addition, the department offers an undergraduate minor and service courses for students from other fields who will use computer science as a tool in their own areas. Students interested in computer science will be advised with respect to computer science courses by the department so they may profitably pursue their academic and professional interests.

Requirements for a major in computer science are specified in two alternative forms. The program under the business option is the more broadly based and provides preparation for a wide range of careers in business and management information processing. This option requires a minor in either business management or accounting. The scientific option is more specifically oriented towards preparing a student for a career in scientific or engineering programming as well as for graduate training in computer science.

B.A. (BUSINESS OPTION) IN COMPUTER SCIENCE

B.S. (BUSINESS OPTION) IN COMPUTER SCIENCE

1. Complete the General University Requirements, on pp. 67-74 and the College of Arts and Sciences Degree Requirements on pp. 77-81.
2. Complete the following courses: CS 101, CS 102, CS 210, CS 301, CS 302, CS 315, CS 316, CS 360, CS 414, CS 470, Math 270, Math 272, Acct 201, Acct 202, AS 300, AS 308, BA 325, BA 335, BA 343, BA 377, Engl 311 or Engl 312.
3. Complete two additional Computer Science courses (at least one upper-division).
4. In addition to the major in Computer Science, students will obtain a minor in Accounting or Business within the School of Business and Public Affairs by completing the following additional courses:

   Accounting: Any nine upper-division credits in Accounting.
   Business: All of the following:
   1. BA 462—Administrative Policy
   2. BA 480—Organizational Theory
   3. BA 489—Corporation Management and Planning
5. The program, including electives, must be developed with an academic advisor from the College of Arts and Sciences and be approved by the Chairperson of the Department of Mathematical Sciences.
6. At least 48 upper-division credits are required to graduate.
7. A total of 128 credits is required for the B.A. degree.
8. A total of 125 credits is required for the B.S. degree.

B.S. (SCIENTIFIC OPTION) IN COMPUTER SCIENCE

1. Complete the General University Requirements, on pp. 67-74 and the College of Arts and Sciences Degree Requirements on pp. 77-81.
2. Complete the following courses: CS 101, CS 105, CS 201, CS 202, CS 210, CS 330, CS 310, CS 381, CS 430, CS 470, AS 307, AS 308, AS 402, Math 200, Math 201, Math 202, Math 302, Math 314, Math 321, BA 377, Phys 211, 212.
3. Complete fifteen additional upper-division credits in CS/Math (at most, six credits in mathematics).
4. The program, including electives, must be developed with an academic advisor from the College of Arts and Sciences and be approved by the Chairperson of the Department of Mathematical Sciences.

5. At least 48 upper-division credits are required to graduate.
6. A total of 127 credits is required for the degree.

MINOR IN COMPUTER SCIENCE

A minor in Computer Science with the **Business Option** requires completion of CS 101, CS 102, Acct 201, CS 210, Acct 202, CS 301, CS 302, in addition to six approved credits of Computer Science at the 300 level or higher and two Business courses selected from the following: BA 325, BA 335, BA 343, and BA 377. (CS 102 may be satisfied by the completion of two courses in programming languages other than COBOL.)

A minor in Computer Science with the **Scientific Option** requires completion of CS 101, CS 105, or ES 201, Math 272 or Math 200, AS 300 or AS 307, CS 201 and 202, CS 210, in addition to six approved credits of Computer Science at the 300 level or higher and the completion of the Natural Science requirement for the BS degree within the College of Arts and Sciences Degree Requirements.

Courses in Computer Science

CS 100 **3 Credits**
INTRODUCTION TO COMPUTERS (3 + 0)
An introductory course in computers and computing intended for non-computer science majors and minors. Includes an introduction to programming languages such as BASIC or LOGO. Emphasis is on vocabulary and concept development needed to be an effective computer user. Not to be taken for credit by computer science majors or minors.

CS 101 **3 Credits**
INTRODUCTION TO DATA PROCESSING (3 + 0)
A broad survey of computer science intended for students who are pursuing majors or minors in computer science or related fields such as engineering. While the fundamentals of computer problem solving and programming in a higher-level programming language such as BASIC or Pascal are discussed and applied, the emphasis is on concepts and vocabulary associated with computers and their general use in business data processing. Prerequisites: Two years of high school algebra or equivalent.

CS 102 **3 Credits**
SURVEY OF PROGRAMMING LANGUAGES (3 + 0)
An introduction to the significant features of popular programming languages (BASIC, FORTRAN, COBOL, PASCAL). Primary course objective is development of language skills to the extent the student can better understand the problems, procedures, and techniques of software development and can identify existing computer programs and to be able to logically argue which language is most suitable for a particular application or organization. Includes an introduction to machine and assembler language concepts. Programming assignments in each language. Prerequisite: Two years of high school algebra or equivalent. Not to be taken for credit by students who have completed courses for credit in more than one of the four languages (BASIC, FORTRAN, COBOL, and PASCAL).

CS 105 **3 Credits**
FORTRAN PROGRAMMING (3 + 0)
Training and practice in writing programs in FORTRAN language. Emphasis on problem solving with a computer analysis, flowcharting, testing and debugging, documentation. Prerequisites: Two years of high school algebra and high school trigonometry or equivalent with a grade of "C" or better.

CS 106 **3 Credits**
BASIC PROGRAMMING (3 + 0)
Practice and use of algorithmic approach to logical reasoning using graphic display of algorithms in flowchart form and coding instructions in BASIC language. Prerequisites: One year of high school algebra or equivalent with a grade of "C" or better.

CS 107 **3 Credits**
PASCAL PROGRAMMING (3 + 0)
Training and practice in writing programs in PASCAL language. Emphasis will be on problem solving with the computer: analysis, flowcharting, testing/debugging, and documentation. Note: a student may apply no more than three credits from CS 107 and CS 201 toward graduation requirements for a baccalaureate degree. Prerequisites: Two years of high school algebra or equivalent.

CS 108 **3 Credits**
INTRODUCTION TO COBOL (3 + 0)
Training and practice in writing programs in COBOL language. Emphasis will be on problem solving with a computer, analysis, testing and debugging, and documentation. Not to be taken for credit by computer science majors or minors in the Business Option.

CS 109 **3 Credits**
PL/1 PROGRAMMING (3 + 0)
Training and practice in writing programs in PL/1 language. Emphasis on problem solving with the computer: analysis, flowcharting, testing/debugging, and documentation. Prerequisites: Two years of high school algebra or equivalent and one introductory programming language course such as BASIC or FORTRAN.

CS 201 **3 Credits**
PROGRAMMING CONCEPTS I (3 + 0)
An introduction to programming and problem solving and to the programming language PASCAL. Prerequisites: CS 105 or CS 106 or permission of instructor.

CS 202 **3 Credits**
PROGRAMMING CONCEPTS II (3 + 0)
An introduction to data structures and algorithm development using PASCAL. Prerequisites: CS 201 or CS 107 with permission of instructor.

CS 210 **3 Credits**
SOFTWARE AND HARDWARE CONCEPTS (3 + 0)
Basic concepts of computer systems and computer architecture. Includes discussion of memory, I/O units, CPU, machine assembler languages, and components

and structure of operating systems. Prerequisites: CS 101 and one programming language course.

CS 300 **3 Credits**
ASSEMBLER LANGUAGE PROGRAMMING (3 + 0)
Review of basic computer organization. An extensive treatment of specific assembler language, including macros. Prerequisite: CS 210.

CS 301 **3 Credits**
PROGRAM DEVELOPMENT (3 + 0)
An introduction to business applications programming and problem solving. Emphasis will be on the fundamentals of structured program design, development testing, implementation, and documentation of common business-oriented applications using COBOL. Prerequisites: CS 102 or equivalent. Corequisite: Acct 201.

CS 302 **3 Credits**
PROGRAM DEVELOPMENT II (3 + 0)
A continuation of CS 301. Emphasis will be on structured methodology of program design, development testing, implementation, and documentation of common business-oriented applications using COBOL. Prerequisite: CS 301. Corequisite: Acct 202.

CS 310 **3 Credits**
NUMERICAL METHODS (3 + 0)
An introduction to the theory and practice of computation with special emphasis on methods useful with digital computers. Topics include matrix calculations and the solution of systems of linear equations, the solution of nonlinear equations, interpolation and approximation, numerical differentiation and integration, and solution of differential equations. Prerequisites: CS 105, Math 302, Math 314.

CS 315 **3 Credits**
SYSTEMS ANALYSIS METHODS (3 + 0)
Overview of the system life development cycle. Emphasis on current system documentation through the use of both classical and structured tools/techniques for describing process flow, data flows, data structures, file designs, input and output designs, and program specifications. Discussion of the information gathering and reporting activities and of the transition from analysis to design of standard business applications programs. Prerequisites: CS 301, Acct 202.

CS 316 **3 Credits**
STRUCTURED SYSTEMS ANALYSIS AND DESIGN (3 + 0)
Advanced study of structured systems development. Emphasis on strategies and techniques of structured analysis and structured design for producing logical methodologies for dealing with complexity in the development of information systems. Prerequisite: CS 315.

CS 320 **3 Credits**
STRUCTURED SYSTEMS ANALYSIS AND DESIGN (3 + 0)
The use and implementation of assemblers, macro assemblers, linkers, loaders, and other systems programs. Exercises in designing and writing various systems programs. An introduction to process, memory, device, and file management in batch, multiprocessing, and timeshared operating systems. Prerequisites: CS 300 and Math 306 recommended.

CS 330 **3 Credits**
DATA STRUCTURES AND ALGORITHMS (3 + 0)
Data structures and algorithms for their manipulation. Arrays, tables, stacks, queues, trees, linked lists, sorting, searching, and hashing. Prerequisites: CS 202 and CS 210.

CS 331 **3 Credits**
PROGRAMMING LANGUAGE STRUCTURES (3 + 0)
A study of the syntax and semantics of widely differing programming languages. Syntax specification, block structure, binding, data structures, operators and control structures. Comparison of several languages such as ALGOL, FORTRAN, LISP, SNOBOL, and PASCAL. Programming assignments in each language. Prerequisites: CS 202, CS 330 recommended.

CS 340 **3 Credits**
TOPICS IN COMPUTER SCIENCE FOR TEACHERS (3 + 0)
A consideration of topics in computer science useful in curriculum enrichment in elementary and secondary education. May be repeated as topics vary. Does not count toward a computer science major.

CS 341 **3 Credits**
TOPICS IN COMPUTER SCIENCE FOR EDUCATIONAL ADMINISTRATION (3 + 0)
A consideration of topics in computer science useful in educational administration. Such topics as criteria for computer hardware and software selection in an educational environment, exposure to available software packages for class scheduling and space utilization, and other relevant topics of interest to school administrators. May be repeated as topics vary. Does not count towards a computer science major.

CS 350 **3 Credits**
APPLIED ALGEBRA (3 + 0)
Prepares students of computer science and computer engineering for the discrete mathematical aspects of the computer. Various mathematical systems and their applications to computer science are studied. Practical problems and applications relating to computer arithmetic, computer design, and switching theory. Topics include: groups, Polya theory of enumeration, applications of group theory to computer design, group codes, semigroups, finite-state machines, rings and fields, linear finite-state machines, and Boolean algebra with applications to computer design. Prerequisites: CS 202, CS 210, Math 306.

CS 360 **3 Credits**
DATABASE PROGRAM DEVELOPMENT (3 + 0)
Introduction to application program development in a database environment with an emphasis on loading, modifying, and querying with the database using a host language (COBOL). Discussion and application of data structures, index and direct file organizations, models of data including hierarchical, network and relational. Discussion of storage devices, data administration, data analysis, design, and implementation. Prerequisites: CS 315. Corequisite: CS 316.

CS 381 **3 Credits**
OPTIMIZATION TECHNIQUES (3 + 0)
Nature of computer based optimization methods. General and special purpose methods of optimization,

such as classical optimization, linear programming, separable programming, integer programming, goal programming, quadratic programming, chance-constrained programming, transportation, and assignment problems. Emphasis on problem recognition, formulation, solution, and interpretation using computer software packages. Prerequisites: Math 321 and AS 307.

CS 385 **3 Credits**
COMPUTER GRAPHICS (3 + 0)
Study of the devices and techniques for the use of computers in generating graphical displays. Includes display devices, display processing, transformation systems, interactive graphics, 3-dimensional graphics, graphics system design and configuration, low and high level graphics languages, and applications. Prerequisites: CS 202, CS 210.

CS 401 **3 Credits**
SOFTWARE ENGINEERING (3 + 0)
Software design as an engineering discipline. Project planning, proposal writing, and management. Program design, verification, and documentation. Additional topics from security, legal aspects of software, validation. Prerequisites: CS 202, CS 210 and Senior standing.

CS 402 **3 Credits**
SOFTWARE ENGINEERING ECONOMICS (3 + 0)
An examination of the primary factors that influence software cost and alternative methods of software development cost estimation useful in evaluating alternatives using various economic criteria. Prerequisites: CS 401 or Senior standing.

CS 405 **3 Credits**
ARTIFICIAL INTELLIGENCE (3 + 0)
Heuristic programming. Heuristic methods: state space, problem reduction, game playing, general problem solver, learning machines. Prerequisites: Math 306, CS 330, CS 331.

CS 410 **3 Credits**
DECISION SUPPORT SYSTEMS (3 + 0)
An analysis of the highest level of information support systems which serve the manager user. Decision support systems (DSS) provide quantitative-based information derived from one or more data bases within and/or external to an organization and used to aid managers in the decision-making process. The primary course objective is to examine the theoretical foundations of decision support systems and to examine the key issues related to success in the development and operation of DSS in organizations. Prerequisites: CS 101, BA 377, and permission of instructor.

CS 411 **3 Credits**
DESIGN AND ANALYSIS OF ALGORITHMS (3 + 0)
Introduction to analysis and complexity of algorithms. Searching/sorting algorithms, polynomial matrix algorithms, graph theoretic algorithms. Introduction to complexity theory. Prerequisites: Math 306, CS 330, CS 350.

CS 413 **3 Credits**
EDP AUDIT AND CONTROLS (3 + 0)
Introduction to the fundamentals of EDP auditing. Primary objectives are to emphasize the importance of EDP controls and to gain an appreciation of and motivation for proper data processing practices and management. Topics include: flow charting, internal control, transaction cycles, computer hardware and software, computer crime, basic auditing concepts, and systems studies. Prerequisites: CS 210, CS 315.

CS 414 **3 Credits**
INFORMATION SYSTEMS PLANNING AND MANAGEMENT (3 + 0)
Introduction to the financial, technical, and strategic information systems planning processes. Emphasis on information systems and their relationships within the organization, on the means of systems selection including staffing and financing, and on the overall management requirements needed to plan, organize and control user services. Prerequisites: CS 210, BA 377, BA 325, and BA 335.

CS 430 **3 Credits**
COMPUTER MODELING AND SIMULATION TECHNIQUES (3 + 0)
Applications and rationale. Design and analysis of discrete simulation models. Generation of random sequences and stochastic variates. Simulation languages (GPSS-FORTRAN). Prerequisites: AS 402, Math 321/ES 301, and CS 105/ES 201. CS 381 recommended or concurrent enrollment.

CS 448 **3 Credits**
SYSTEM ARCHITECTURE (3 + 0)
Hardware and operating systems and their interaction. I/O, interrupts, memory management, concurrent processing, deadlock, modularity, system balancing, scheduling, protection, introduction to communications and networks. Prerequisites: CS 320, CS 350.

CS 470 **3 Credits**
APPLIED SOFTWARE DEVELOPMENT PROJECT (3 + 0)
Application of computer programming and system development concepts, principles, and practices to a comprehensive system development project. The student is required to analyze, design, and document a realistic system of moderate complexity under the supervision of his/her committee chairman. Independent study with grade determined by project which the student presents (and defends) to his/her committee. Course requirement may be waived if candidates have at least twelve months of full-time (or part-time equivalent) direct experience in computer-based information systems. This waiver requires the candidate to document this experience and to obtain the signature of a responsible person who can verify both the candidate's work experience and professional qualifications through personal knowledge or access to the necessary information. Holders of the CDP designations are automatically waived from this course requirement. Prerequisites: Permission of the CS faculty and Senior standing.

English

English offers a blend of the practical and the cultural. The study of composition emphasizes that effective writing comes from intellectual ac-

tivity and imaginative discoveries, not from conformity to rules. The ability to express oneself with clarity and precision is of the highest importance in professional life.

English majors develop their skills in reading, writing, speaking, and using creative imagination.

The curriculum aims to build a respect for letters without idolizing them and a respect for education without placing a terminal value upon it. The total offerings of the Department are designed to enable the student to learn not only of his/her heritage but also of himself/herself. It is truly liberal education—one that helps each student to find himself/herself as an individual but more importantly helps him/her to lose himself in interests, causes, and ideas larger and more enduring than he/she.

BACHELOR OF ARTS

1. Complete the General University Requirements for an undergraduate degree on pp. 67-74 and the College of Arts and Sciences BA Degree Requirements on pp. 77-81.
2. Complete the English Core Requirements listed below.

Credits

English Core (15 credits)
- Engl 201—Masterpieces of World Literature I 3
- Engl 202—Masterpieces of World Literature II 3
- Engl 351—Poetry 3
- Engl 424—Shakespeare 3
- Engl 435—History of Criticism 3

3. Complete one of the following English Emphases.

Traditional Emphasis (21 credits)
- Engl 310—Ancient Literature OR
- Engl 315—Medieval Literature OR
- Engl 320—Renaissance Literature OR
- Engl 325—Neoclassical Literature OR
- Engl 330—Literature of Romanticism 3
- Engl 340—Modern Literature: 1850-1890 OR
- Engl 341—Modern Literature: 1890-1920 OR
- Engl 342—Modern Literature: 1920-1950 OR
- Engl 343—Modern Literature: 1950 to Present 3
- Engl 361—The Novel OR
- Engl 363—The Short Story OR
- Engl 371—Prose: Non-Fiction OR
- Engl 381—Drama OR
- Engl 383—Film Interpretation 6
- Engl 475—Modern Grammar OR
- Engl 476—History of English Language. . 3
- Upper-division English Electives 6

Teaching Emphasis (24 credits)
- Engl 310—Ancient Literature OR
- Engl 315—Medieval Literature OR
- Engl 320—Renaissance Literature OR
- Engl 325—Neoclassical Literature OR
- Engl 330—Literature of Romanticism OR
- Engl 340—Modern Literature: 1850-1890 OR
- Engl 341—Modern Literature: 1890-1920 OR
- Engl 342—Modern Literature: 1920-1950 OR
- Engl 343—Modern Literature: 1950 to Present 3
- Engl 352—The Composition of Poetry OR
- Engl 362—The Composition of Prose Fiction OR
- Engl 372—The Composition of Prose Non-Fiction OR
- Engl 382—The Composition of Drama OR
- Engl 414—Research Writing 3
- Engl 361—The Novel OR
- Engl 363—The Short Story OR
- Engl 371—Prose: Non-Fiction OR
- Engl 381—Drama OR
- Engl 383—Film Interpretation 3
- Engl 421—Chaucer OR
- Engl 426—Milton 3
- Engl 475—Modern Grammar 3
- Engl 476—History of English Language. . 3
- Engl 487—Standard Written English 3
- Engl 485 is also required for secondary certification. For additional requirements in the certification program, students must consult with an advisor in the School of Education.

Creative Writing Emphasis (21 credits)
- Engl 310—Ancient Literature OR
- Engl 315—Medieval Literature OR
- Engl 320—Renaissance Literature OR
- Engl 325—Neoclassical Literature OR
- Engl 330—Literature of Romanticism OR
- Engl 340—Modern Literature: 1850-1890 OR
- Engl 341—Modern Literature: 1890-1920 OR
- Engl 342—Modern Literature: 1920-1950 OR
- Engl 343—Modern Literature: 1950 to Present 3
- Engl 352—The Composition of Poetry OR
- Engl 362—The Composition of Prose Fiction OR

Engl 372—The Composition of Prose: Non-Fiction OR
Engl 382—The Composition of Drama
At least 3 credits in each of two courses . . 6
Engl 361—The Novel OR
Engl 363—The Short Story OR
Engl 371—Prose: Non-Fiction OR
Engl 381—Drama OR
Engl 383—Film Interpretation 6
Upper-division English Electives 6

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

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

MINOR IN ENGLISH

Complete the following 18 credits in English.

Engl 201—Masterpieces of World Literature I 3
Engl 202—Masterpieces of World Literature II 3
Engl 351—Poetry 3
Engl 424—Shakespeare 3
Engl 435—History of Criticism 3
Upper-division English Electives 3

MASTER OF ARTS

Admission Requirements:

1. To be admitted to the MA program, an applicant must:
   a. have earned a bachelor's degree with an undergraduate grade-point average of at least 3.0 in the major;
   b. have submitted scores of the GRE General Aptitude Test and the Advanced Test in Literature in English.

2. Conditional Admission may be granted prior to receipt of GRE scores.

3. No more than 9 post-baccalaureate credits completed prior to applying for graduate admission may be applied to the degree.

Candidacy Requirements:

1. To be advanced to candidacy for the MA degree, a student must:
   a. have been unconditionally admitted to the MA program;
   b. have completed at least 8 resident credits;
   c. have maintained a grade point average of at least 3.0 in the major.

2. No more than two-thirds of the credits applied to the degree may have been completed prior to the submission of a candidacy application.

Degree Requirements:

1. To meet the requirements for the MA degree a student must:
   a. have been advanced to candidacy for the MA degree;
   b. completed all General University Requirements (see pp. 67-74);
   c. complete at least 30 credits in approved English courses;
   d. complete at least 6 credits in graduate-level Period studies (English 610 through 643) and 6 credits in graduate-level Genre studies (English 651, 661, 663, 681).

2. A comprehensive examination on the candidate's coursework is required.

3. Completion of either the Thesis Option or the Non-thesis Option is required. Under the Thesis Option the program will include at least six credits in English 699 and a thesis defense. Under the Non-thesis Option other course work will be substituted for the thesis credits and an examination on a reading list and a literary period will be substituted for the defense.

MASTER OF ARTS IN TEACHING

Degree Requirements: English

This degree is designed to serve baccalaureate graduates who have qualified or who can qualify for the Alaska secondary school certificate; who intend to make secondary school classroom teaching their career, and who wish to take additional work in their teaching major as well as in education. A minimum of 30 hours is required. An advisory committee, appointed by the Dean of the College, will require a minimum of 15 hours (nine of them on the graduate level) of English courses taken at the University. Candidates for the degree must submit scores of the Graduate Record Examination and the GRE Specialty Examination in English.

MASTER OF FINE ARTS—CREATIVE WRITING

Admission Requirements

In addition to meeting the University's graduate admission requirements, applicants must submit a portfolio of their work to the English Department at the time they apply for admission. Admission is contingent upon evaluation of the portfolio.

Degree Requirements

Credits

1. Composition Courses: Engl 652 (Poetry), 662 (Fiction), 682 (Drama). At least two genres must be studied 12

2. Genre Courses: Engl 351 (Poetry), 361 (Novel), 363 (Short Story), 381 (Drama), 383 (Film). If the student has earned credit for any of these courses, approved upper-division and graduate level course work will be substituted 9
3. 600-level literature elective 3
4. Thesis. A book-length creative work 9
5. Electives: Upper-division and graduate level courses which complement the thesis project. 12
6. Successful defense of the thesis to include an essay that puts the thesis in "critical perspective."

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Courses in English

ENGL 111 **3 Credits**
METHODS OF WRITTEN COMMUNICATION (3 + 0)
Instruction in writing expository prose, including principles of order and clarity. Close analysis of appropriate texts. Library paper required. Prerequisite: a score of 35 or above on the SAT Test of Standard Written English; or a score of 14 or above on the ACT English Usage Test.

ENGL 121 **3 Credits**
THE STUDY OF LITERATURE (3 + 0)
An introductory course for non-majors. Material includes selections from poetry, drama, and prose fiction. Focus is on literature as an art which expresses and gives form to human experience. Prerequisite: Engl 111.

ENGL 201 **3 Credits**
ENGL 202 **3 Credits**
MASTERPIECES OF WORLD LITERATURE I AND II (3 + 0)
An introductory course for majors and non-majors. Emphasis is on appreciation and understanding of literature, formation of critical vocabulary, and development of standards of literary judgment. Selected masterpieces from ancient times through the Renaissance (I) and from the Renaissance to the present (II). Prerequisite: Engl 111.

ENGL 211* **3 Credits**
INTERMEDIATE EXPOSITION WITH MODES OF LITERATURE (3 + 0)
Instruction in writing through close analysis of literature. Research paper required. Prerequisites: Engl 111 and Sophomore standing.

ENGL 213* **3 Credits**
INTERMEDIATE EXPOSITION (3 + 0)
Instruction in writing through close analysis of expository prose from the social and natural sciences. Research paper required. Prerequisites: Engl 111 and Sophomore standing.

* NOTE: Neither English 211 nor English 213 is to be considered or used to the exclusion of the other as a prerequisite for any other course or for any particular course of study. A student who has taken one of these courses and who declares or changes a major will not be required to take the other course.

ENGL 304 **3 Credits**
SURVEY OF BRITISH WOMEN WRITERS (3 + 0)
Selective study of women writing in England from the Middle Ages through the twentieth century in both traditional literary genres and as theorists on women's issues. Prerequisites: Engl 201, Engl 202 or permission of instructor.

ENGL 306 **3 Credits**
SURVEY OF AMERICAN LITERATURE: FROM THE COLONIAL PERIOD TO THE CIVIL WAR (3 + 0)
Comprehensive study of American thought as reflected in its major writers, including works representative of American Calvinism, Rationalism, Transcendentalism, and Romanticism.

ENGL 307 **3 Credits**
SURVEY OF AMERICAN LITERATURE: FROM THE CIVIL WAR TO THE PRESENT (3 + 0)
Comprehensive study of American thought as reflected in its major writers, including works representative of Realism, Naturalism, Stream-of-Consciousness, and Surrealism.

ENGL 310 **3 Credits**
ANCIENT LITERATURE (3 + 0)
Literature primarily of the Greeks and Romans in English translation. Prerequisites: Engl 201, 202, or permission of the instructor.

ENGL 311 **3 Credits**
ADVANCED EXPOSITION (3 + 0)
Instruction in writing for students who wish to develop proficiency in organizing and composing essays on factual material in which they have genuine interest. Research paper required. Course will fulfill the second half of the requirement in written communication (i.e., it may replace Engl 211 or Engl 213). Prerequisites: Engl 111, Junior standing, and permission of instructor.

ENGL 312 **3 Credits**
TECHNICAL WRITING (3 + 0)
Instruction in writing situations, tasks, and modes; the rhetorical and stylistic techniques; and the methods of gathering and documenting print resources likely to be used by professionals in the technologies and sciences. Prerequisites: Engl 111 and Junior standing.

ENGL 315 **3 Credits**
MEDIEVAL LITERATURE (3 + 0)
A selective survey of primarily Western literature from the fifth century through the fifteenth. Representative authors and genres. Prerequisites: Engl 201, 202 or permission of instructor.

ENGL 320 **3 Credits**
RENAISSANCE LITERATURE (3 + 0)
A selective survey of primarily Western literature from the fifteenth century through about the middle of the seventeenth. Representative authors and genres. Prerequisites: Engl 201, 202 or permission of instructor.

ENGL 325 **3 Credits**
NEOCLASSICAL LITERATURE (3 + 0)
Poetry and prose of the seventeenth and eighteenth centuries in Europe and America. Prerequisites: Engl 201, 202 or permission of instructor.

ENGL 330 **3 Credits**
LITERATURE OF ROMANTICISM (3 + 0)
A study of the Romantic movements in Europe and the United States from the late 1700's to approximately 1865. Prerequisites: Engl 201, 202 or permission of instructor.

ENGL 340 **3 Credits**
MODERN LITERATURE: 1850-1890 (3 + 0)
The contributions of major writers such as Flaubert, De Maupassant, Zola, Dostoevski, Tolstoy, Tennyson, Browning, Dickens, Whitman, Dickinson, Twain, and James. Prerequisites: Engl 201, 202 or permission of instructor.

ENGL 341 **3 Credits**
MODERN LITERATURE: 1890-1920 (3 + 0)
The contributions of major writers such as Ibsen, Chekhov, Crane, Cather, Lowell, Sandburg, Frost, Hardy, Yeats, Galsworthy, Lawrence, Shaw, and Proust. Prerequisites: Engl 201, 202 or permission of instructor.

ENGL 342 **3 Credits**
MODERN LITERATURE: 1920-1950 (3 + 0)
The contributions of major writers such as Mann, Kafka, Gide, Sartre, Woolf, Eliot, Pound, Fitzgerald, Hemingway, O'Neill, and Williams. Prerequisites: Engl 201, 202 or permission of instructor.

ENGL 343 **3 Credits**
MODERN LITERATURE: 1950 TO PRESENT (3 + 0)
A study of major works written since 1950 including selections from American, European, Asian, and African writings. Prerequisites: 201, 202 or permission of instructor.

ENGL 351 **3 Credits**
POETRY (3 + 0)
An intensive study of the forms and techniques used by poets. Prerequisites: Engl 201, 202 or permission of instructor.

ENGL 352 **3 Credits**
THE COMPOSITION OF POETRY (3 + 0)
Practice in the writing of various poetic structures and close analysis of each student's work. Repeatable course. May be taken up to three times for degree credit. Prerequisites: Engl 201, 202 or permission of instructor.

ENGL 361 **3 Credits**
THE NOVEL (3 + 0)
The development of the novel with primary emphasis on major novelists such as Fielding, Richardson, Smollett, Sterne, Dickens, Zola, Dostoevski, Tolstoy, Joyce, James, Faulkner, and Sartre. Prerequisites: Engl 201, 202 or permission of instructor.

ENGL 362 **3 Credits**
THE COMPOSITION OF PROSE FICTION (3 + 0)
Practice in the writing of various fictional structures and close analysis of each student's work. Repeatable course. May be taken up to three times for degree credit. Prerequisites: Engl 201, 202 or permission of instructor.

ENGL 363 **3 Credits**
THE SHORT STORY (3 + 0)
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. Prerequisites: Engl 201, 202 or permission of instructor.

ENGL 371 **3 Credits**
PROSE: NON-FICTION (3 + 0)
A study of the chief forms of prose non-fiction, formal and informal essay, biography, letter, journal, review. Prerequisites: Engl 201, 202 or permission of instructor.

ENGL 372 **3 Credits**
THE COMPOSITION OF PROSE: NON-FICTION (3 + 0)
Writing non-fiction: formal and informal essay, biography, letter, journal, and review. Critique of student productions. Repeatable course. May be taken up to three times for degree credit. Prerequisites: Engl 201, 202 or permission of instructor.

ENGL 381 **3 Credits**
DRAMA (3 + 0)
An intensive study of the forms and techniques used by dramatists, including significant criticism from Aristotle to the present. Prerequisites: Engl 201, 202 or permission of instructor.

ENGL 382 **3 Credits**
THE COMPOSITION OF DRAMA FOR STAGE AND SCREEN (3 + 0)
Study and practice of various dramatic structures for stage and screen and close analysis of each student's work. Repeatable course. May be taken up to three times for degree credit. Prerequisites: Engl 201, 202 or permission of instructor.

ENGL 383 **3 Credits**
FILM INTERPRETATION (3 + 0)
An analysis of the unique "language" and elements of the film medium. Historical and contemporary examples of documentary, short subject, and feature film will be studied.

ENGL 414 **3 Credits**
RESEARCH WRITING (3 + 0)
Technical, specialized exposition, documentation, and research. Concentration on language, style and audience in scholarly articles. Papers in students' field prepared for conference. Students should have a definite project in mind before enrolling. Prerequisites: Engl 211, 213, or 311.

ENGL 421 **3 Credits**
CHAUCER (3 + 0)
Major poetry, with emphasis on *The Canterbury Tales* and survey of Chaucerian criticism. Prerequisites: Engl 201, 202 or permission of instructor.

ENGL 424 **3 Credits**
SHAKESPEARE (3 + 0)
Major works, including significant Shakespearean criticism. Prerequisites: Engl 201, 202 or permission of instructor.

ENGL 426 **3 Credits**
MILTON (3 + 0)
Major poetry and prose, and survey of Miltonian criticism. Prerequisites: Engl 201, 202 or permission of instructor.

ENGL 429 **3 Credits**
MAJOR 20TH-CENTURY AUTHORS (3 + 0)
One author, specified in the semester schedule when offered. Prerequisites: Engl 201, 202 or permission of the instructor.

ENGL 435 **3 Credits**
HISTORY OF CRITICISM (3 + 0)
Critical theory from its classical origins to the present. Prerequisites: Engl 201, 202 or permission of instructor.

ENGL 436 **3 Credits**
TYPES OF MODERN CRITICISM (3 + 0)
A spectrum of the major types of criticism practiced in the twentieth century. Prerequisites: Engl 201, 202 or permission of instructor.

ENGL 437 **3 Credits**
STYLE AND STYLISTICS (3 + 0)
A systematic study of the techniques which characterize good prose and poetry and of the theoretical principles underlying the techniques. Prerequisites: Engl 211 or 311.

ENGL 475 **3 Credits**
MODERN GRAMMAR (3 + 0)
An inductive modern linguistic analysis of English emphasizing transformational grammar. Recommended for students in Education with a teaching major or minor in English. Prerequisite: Ling 101 or permission of instructor.

ENGL 476 **3 Credits**
HISTORY OF ENGLISH LANGUAGE (3 + 0)
Origins and development of the English language from prehistoric times to the present. Ling 101 is desirable but not required.

ENGL 477 **3 Credits**
LINGUISTICS AND LITERATURE (3 + 0)
An analysis of various forms of literature, using the techniques of modern linguistics. Prerequisites: Ling 101 and Engl 201, 202 or permission of instructor.

ENGL 485/ED 406 **3 Credits**
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 486 **3 Credits**
ADOLESCENT LITERATURE (3 + 0)
Reading and evaluation of literature for middle and high school students. Prerequisites: Engl 201, 202 or permission of instructor.

ENGL 487 **3 Credits**
STANDARD WRITTEN ENGLISH (3 + 0)
Subjects to be covered include the principles of traditional grammar, standard usage, and rhetoric. Prerequisites: Engl 211, 213, or 311.

ENGL 606 **3 Credits**
OLD ENGLISH (3 + 0)
Emphasis is on acquiring a basic understanding of the nature and structure of the Old English language. Selected prose and verse readings introduce Anglo-Saxon literature and culture.

ENGL 610 **3 Credits**
STUDIES IN ANCIENT LITERATURE (3 + 0)
Advanced study of particular topics in the literature of ancient societies. May be repeated once for degree credit with a change of subtitle.

ENGL 615 **3 Credits**
STUDIES IN MEDIEVAL LITERATURE (3 + 0)
Advanced study of particular topics in medieval western literature. May be repeated once for degree credit with a change of subtitle.

ENGL 620 **3 Credits**
STUDIES IN RENAISSANCE LITERATURE (3 + 0)
Advanced study of particular topics in the literature of the European Renaissance. May be repeated once for degree credit with a change of subtitle.

ENGL 625 **3 Credits**
STUDIES IN NEOCLASSICAL LITERATURE (3 + 0)
Advanced study of particular topics in the literature of the late seventeenth and eighteenth centuries. May be repeated once for degree credit with a change of subtitle.

ENGL 630 **3 Credits**
STUDIES IN LITERATURE OF ROMANTICISM (3 + 0)
Advanced study of particular topics in the literature of the romantic period. May be repeated once for degree credit with a change of subtitle.

ENGL 640 **3 Credits**
STUDIES IN MODERN LITERATURE: 1850-1890 (3 + 0)
Advanced study of particular topics in the literature of the period 1850-1890. May be repeated once for degree credit with a change of subtitle.

ENGL 641 **3 Credits**
STUDIES IN MODERN LITERATURE: 1890-1920 (3 + 0)
Advanced study of particular topics in the literature of the period 1890-1920. May be repeated once for degree credit with a change of subtitle.

ENGL 642 **3 Credits**
STUDIES IN MODERN LITERATURE: 1920-1950 (3 + 0)
Advanced study of particular topics in the literature of the period 1920-1950. May be repeated once for degree credit with a change of subtitle.

ENGL 643 **3 Credits**
STUDIES IN MODERN LITERATURE: 1950 TO THE PRESENT (3 + 0)
Advanced study of particular topics in the literature of the period 1950 to the present. May be repeated once for degree credit with a change of subtitle.

ENGL 651 **3 Credits**
STUDIES IN POETRY (3 + 0)
Advanced study of particular poetic forms, techniques, schools, or traditions. May be repeated once for degree credit with a change of subtitle.

ENGL 652 **3 Credits**
STUDIES IN WRITING POETRY (3 + 0)
Advanced study and practice of the forms and techniques of poetry with close analysis of each student's work. May be repeated for degree credit.

ENGL 661 **3 Credits**
STUDIES IN THE NOVEL (3 + 0)
Advanced study of particular novel forms, techniques, schools, or traditions. May be repeated once for degree credit with a change of subtitle.

ENGL 662 **3 Credits**
STUDIES IN WRITING FICTION (3 + 0)
Advanced practice in the writing of various fictional forms with close analysis of each student's work. May be repeated for degree credit.

ENGL 663 **3 Credits**
STUDIES IN THE SHORT STORY (3 + 0)
Advanced study of the formal requirements and varieties of the short story genre. May be repeated once for degree credit with a change of subtitle.

ENGL 681 **3 Credits**
STUDIES IN DRAMA (3 + 0)
Advanced study of dramatic forms, techniques, schools and traditions. May be repeated once for degree credit with a change of subtitle.

ENGL 682 **3 Credits**
STUDIES IN WRITING DRAMA FOR STAGE AND SCREEN (3 + 0)
Advanced study and practice of various dramatic structures of stage and screen with close analysis of each student's work. Emphasis will be on the process of developing work for production. May be repeated for degree credit.

ENGL 685 **1 Credit**
ANCHORAGE WRITING PROJECT WORKSHOP (1 + 0)
A series of one-credit graduate courses focusing on specific aspects of teaching writing. Together with a Summer Institute, these courses constitute the Anchorage Writing Project Teacher Training Program. Enrollment is restricted to Anchorage Writing Project teachers.

ENGL 686/ED 663 **1-5 Credits**
WRITING AND LEARNING: ANCHORAGE WRITING PROJECT SUMMER INSTITUTE
An intensive course designed to introduce students to the writing process. Focus will be on teaching techniques, including student writing response groups, writing to assist learning, personal experience writing, cognitive organization, oral language, sentence combining, and grammar. Students will be required to participate in preliminary and post institute meetings.

ENGL 687 **3 Credits**
ENGLISH TEACHING ASSISTANT INTERNSHIP (1.25 + 3.5)
Internship in teaching freshman composition, including an orientation to composition theory and practice, supervised classroom teaching. Students will participate in the orientation and teach two sections of English 111. Prerequisite: Admission to the Teaching Assistant Program.

ENGL 688/ED664 **1-3 Credits**
WRITING AND 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. Prerequisite: 3 credits of Engl 686 or ED 663.

Foreign Language

Self-Study is offered by means of audio cassettes and associated pedagogical materials in several languages. The languages in which self-study credit is obtainable will be listed in the published class schedules. The study of a language through self-study is recommended only for those students who are highly motivated and capable of consistent effort without the reinforcement of a traditional classroom.

FL 101 **3 Credits**
SELF-STUDY (3 + 0)
Introduction to a foreign language, vocabulary, grammar, and dialogues. Self-study foreign language course using audio-cassettes and associated pedagogical materials. Oral facility stressed with reading skills acquired only incidentally. Little or no writing.

FL 102 **3 Credits**
SELF-STUDY (3 + 0)
Introduction to a foreign language, vocabulary, grammar, and dialogues. Self-study foreign language course using audio-cassettes and associated pedagogical materials. Oral facility stressed with reading skills acquired only incidentally. Little or no writing. Prerequisite: FL 101.

French

FREN 101 **5 Credits**
FREN 102 **5 Credits**
ELEMENTARY FRENCH I AND II (5 + 0) (5 + 0)
Introduction to the French language. Vocabulary and grammar. Practice in understanding, speaking, reading, and writing French. Oral practice is emphasized. Prerequisite for Fren 102: Fren 101.

FREN 201 **3 Credits**
FREN 202 **3 Credits**
INTERMEDIATE FRENCH I AND II (3 + 0) (3 + 0)
This course reviews the fundamentals of the French language, including the four components essential to the acquisition of any language: grammar, vocabulary, flu-

ency, and accent. Because language is a reflection of culture, the course combines both and incorporates colloquial French expressions and behaviors. The focus is on preparing the student to communicate freely with a French speaker by strengthening the student's ability to speak, listen, read, and write. Prerequisites: Fren 101 and 102 or equivalent. Besides Fren 101 and 102, Fren 201 is required for Fren 202.

FREN 344 **3 Credits**
CONTEMPORARY FRENCH LITERATURE (3 + 0)
Study of contemporary French literature for intermediate level students, concentrating on short works and selections of plays written in the 1960's. Strong emphasis on French culture and society as portrayed in the readings. Prerequisites: Fren 100 and 200 levels or equivalent.

Geology

GEOL 111 **4 Credits**
PHYSICAL GEOLOGY (3 + 3)
Introduction to Physical Geology: A study of the earth, its materials, and processes that affect changes upon and within it. Laboratory work in the use of topographic maps and the recognition of rocks and minerals.

GEOL 112 **4 Credits**
HISTORICAL GEOLOGY (3 + 3)
An introduction to the principles of historical geologic interpretation, the development of the geologic time scale, the stratigraphic record and its interpretation, plate tectonics, the fossil record and its utilization, biostratigraphy, and the evolution of the North American continent through geologic time. Prerequisite: Geol 111.

GEOL 261 **3 Credits**
GENERAL GEOLOGY FOR ENGINEERS (2 + 3)
Applied Geology: Study of common rocks and minerals, landforms, erosion, transport, deposition of geologic materials, and engineering applications of geology.

History

History as a subject in its broadest sense is all that human beings have thought and done. Knowledge of history is the principal means by which humans discover and preserve their collective identity, for through such knowledge, we gain a glimpse of our potential and a clear view of our limitations.

History as an intellectual discipline examines and interprets the documentary records of human activity, records that are often fragmentary and incomplete. As a discipline, history is both a science and an art; it requires an intricate balance of scientific technique and creative imagination to weave fragments of evidence into an intelligent account of human experience. For this reason, history remains a challenging, rewarding, and often sobering intellectual experience.

BACHELOR OF ARTS

1. Complete the General University Requirements, on pp. 67-74 and the College of Arts and Sciences Degree Requirements on pp. 77-81.
2. Complete the following 12 credits of foundation courses: Hist 101, 102, 131, and 132.
3. Complete 18 credits of upper-division History electives, to include Hist 477.
4. Complete 6 credits of History electives, any level.
5. Complete Phil 421.
6. At least 48 upper-division credits are required to graduate.
7. A total of 120 credits is required for the degree.

MINOR IN HISTORY

Complete Hist 101 and 102 or Hist 131 and 132 and 12 credits of History electives, 9 of which must be upper-division.

Courses in History

HIST 101 **3 Credits**
WESTERN CIVILIZATION I (3 + 0)
The origins of western civilization in the ancient Near East and the subsequent development through 1650. The major political, social, economic, and intellectual developments will be emphasized.

HIST 102 **3 Credits**
WESTERN CIVILIZATION II (3 + 0)
A survey of the developments in western civilization from 1650 to the present. The major social, political, economic, and intellectual characteristics of western society will be stressed.

HIST 131 **3 Credits**
HISTORY OF THE U.S. I (3 + 0)
Discovery and exploration, Colonial Period, American Revolution. The Constitution, Federal Period, Jeffersonian-Jacksonian Democracy, the West, Sectionalism, Slavery and Abolitionism, American Culture, and the Civil War.

HIST 132 **3 Credits**
HISTORY OF THE U.S. II (3 + 0)
Reconstruction of the south, the far west, growth of industry and labor, "Gilded Age," Imperialism, Progressivism, World War I, "Roaring Twenties," The Great Depression, Isolationism and World War II, Cold War, modern American society, Vietnam and after.

HIST 310 **3 Credits**
EUROPE: 1500 TO 1789 (3 + 0)
The Reformation and the War of Religion, the Thirty Years War, the rise of the European Nation-States, the Scientific Revolution and the Enlightenment. Prerequisite: Hist 102 or permission of instructor.

HIST 312 **3 Credits**
EUROPE: 1789-1870 (3 + 0)
French Revolution and Napoleonic Empire, the Concern of Europe, German and Italian Unification, Romanticism and the New Enlightenment, the Industrial Revolution. Prerequisite: Hist 102 or permission of instructor.

HIST 314 **3 Credits**
EUROPE: 1870-1945 (3 + 0)
The Bismarckian system and its breakdown; the First World War; the Russian Revolution; Fascism and National Socialism; the Great Depression; the Second World War. Prerequisite: Hist 102 or permission of instructor.

HIST 316 **3 Credits**
EUROPE SINCE 1945 (3 + 0)
Germany and the problems of the peace, the Soviet Union and eastern Europe, the Cold War, economic problems and the recovery. European integration and the development of the Common Market, NATO and the Warsaw Pact. Prerequisites: Hist 102 or permission of instructor.

HIST 341 **3 Credits**
HISTORY OF ALASKA (3 + 0)
Introduction to background of Alaska and its relationship to America and the world, including anthropological aspects of native groups, land bridge theory, Russian discovery, occupation and management, Orthodoxy, purchase, American organization and development, gold rushes, Congressional definition and federalism, native claims history, statehood, oil and the disposition of Alaska lands. Prerequisite: Junior standing.

HIST 342 **3 Credits**
HISTORY OF RUSSIAN AMERICA (3 + 0)
The history of Russian expansion to and development of the American Pacific Northwest and Alaska, with native ethnography and ethnology: 1648-1867. Note: Not a substitute for Hist 341. Will substitute for Hist 341 only in combination with Hist 343. Prerequisite: Junior standing.

HIST 343 **3 Credits**
HISTORY OF AMERICAN ALASKA (3 + 0)
The history of American expansion to and development of Alaska, including political, economic, social and cross-cultural aspects. Note: does not substitute for Hist 341; will substitute for Hist 341 only in combination with Hist 342. Prerequisite: Junior standing.

HIST 360/ECON 360 **3 Credits**
MODERN ECONOMIC HISTORY (3 + 0)
A survey of the economic history of the modern era (1600 to present). Emphasis will be placed on Western Europe and the United States. Additional coverage will be given to Japan, the Soviet Union and one Third World Nation. Prerequisites: Hist 102 and Econ 201 or permission of instructor.

HIST 401 **3 Credits**
THE HISTORY OF WARFARE (3 + 0)
A study of the history of warfare from the classical age to the present. The following topics are examined: the relationship between war and social, political, and economic organization; the evolution of weapons systems; the growth of modern professional and mass armies; the "laws" of war; the development of modern strategic and tactical thought; and the impact of the atomic age. Prerequisites: Hist 101 and 102 or permission of instructor.

HIST 402 **3 Credits**
THE SECOND WORLD WAR (3 + 0)
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 post war settlements are also emphasized. Prerequisites: Hist 102 or permission of instructor.

HIST 412 **3 Credits**
SOCIAL AND INTELLECTUAL HISTORY OF THE MIDDLE AGES (3 + 0)
Survey of the Social and Intellectual History of Europe from the 5th to 15th centuries.

HIST 414 **3 Credits**
MEDIEVAL ENGLAND (3 + 0)
An examination of English history from the decline of Roman Britain until the end of the Middle Ages. Particular attention will be given to the Anglo-Saxon incursions, the Norman invasion, and the political, cultural, and economic developments of the twelfth-fourteenth centuries.

HIST 415 **3 Credits**
THE HISTORY OF CHRISTIANITY (3 + 0)
A survey of selected aspects of the history of Christianity. Special emphasis will be placed on topics in intellectual and institutional history. Treatment will be primarily limited to western Christianity. Prerequisites: Hist 101, 102 or permission of instructor.

HIST 418 **3 Credits**
TUDOR AND STUART ENGLAND (3 + 0)
The history of England from accession of Henry VII down 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 Revolution, and the establishment of parliamentary government. Prerequisites: Hist 101 or permission of instructor.

HIST 425 **3 Credits**
SOVIET UNION (3 + 0)
Russian history—from the origins of the Bolshevik revolution and concentrating on Lenin and his contribution to Marxism; the struggle between Trotsky and Stalin; Stalinization (purges and collectivization of agriculture); World War II and the Cold War; detente; and the arms race. Prerequisites: None

HIST 431 **3 Credits**
COLONIES AND REVOLUTION (3 + 0)
Settlement of British America, social, political, economic and ideological development of American colonies, prelude to revolution, the American Revolution, drafting of the Constitution, and the Federalist era. Prerequisites: Hist 131 and 132 or permission of instructor.

HIST 434 **3 Credits**
EARLY NATIONAL PERIOD, 1800-1850 (3 + 0)
Jeffersonian policies and ideology; struggle with England and the war of 1812; transcontinental treaties and the Monroe Doctrine; the age of Jackson and westward

expansion; the era of reform; the Mexican War. Prerequisites: Hist 131 and 132 or permission of instructor.

HIST 445 **3 Credits**
TWENTIETH CENTURY U.S. SOCIAL AND LABOR HISTORY (3 + 0)
A survey of class, race, and ethnicity in modern America. Special attention will be given to labor and the problem of poverty. Prerequisites: Hist 132 or permission of instructor.

HIST 450 **3 Credits**
TWENTIETH CENTURY AMERICA (3 + 0)
United States from the progressive movement to the present day, with emphasis on domestic developments. Prerequisites: Hist 132 or permission of instructor.

HIST 451 **3 Credits**
POPULISTS AND PROGRESSIVES: AMERICA, 1877-1917 (3 + 0)
The development of the reform state, from the rise of the People's party to the Progressive Era presidencies of Roosevelt, Taft, and Wilson. Prerequisites: Hist 132 or permission of instructor.

HIST 452 **3 Credits**
AMERICA IN WAR AND PEACE, 1917-1945 (3 + 0)
An examination of Americans responding to the crises of war and depression. Prerequisites: Hist 132 or permission of instructor.

HIST 453 **3 Credits**
AMERICA SINCE 1945 (3 + 0)
Topics will include the growth of presidential power; McCarthyism, the FBI, and civil liberties; the rise of the national security state; civil rights and antiwar movements of the 1960's and Watergate. Prerequisites: None.

HIST 455 **3 Credits**
THE NATIONAL SECURITY STATE: AMERICA AND THE WORLD IN THE 20TH CENTURY (3 + 0)
An examination of the motivating forces behind modern American foreign policy. Special emphasis will be placed on intervention, the rise and eventual dominance of liberal internationalism, and the role of covert action in the foreign policy-making process. Prerequisites: None.

HIST 465 **3 Credits**
EARLY AMERICAN CULTURE (3 + 0)
Primary American ideas and values in their formative period, including Puritanism, democracy, equality, right of self-governance, education, free enterprise, self-criticism, and manifest destiny. Prerequisites: Hist 131 and 132 or equivalent.

HIST 466 **3 Credits**
MODERN AMERICAN CULTURE (3 + 0)
Primary American ideas and values in their maturity, including free enterprise, social gospel, evolution, individualism, success, freedom, criticism, and heroism. Prerequisites: Hist 131 and 132 or equivalent.

HIST 477 **3 Credits**
SENIOR SEMINAR (3 + 0)
A course in research methodology intended for history majors and others, normally taken in the senior year of study. Students will prepare a major research paper, utilizing primary research material, under the direction of department faculty.

HIST 478 **3 Credits**
STUDIES IN EARLY AMERICAN HISTORY (3 + 0)
An examination of selected fundamental topics in early American history. Areas will be studied as student need and faculty expertise indicate. Sub-title varies; may be repeated for credit with a different sub-title. Prerequisites: Hist 131 or permission of instructor.

HIST 479 **3 Credits**
STUDIES IN MODERN AMERICAN HISTORY (3 + 0)
This course is intended to provide an intensive examination of selected fundamental topics in modern American history. Specific areas will be treated as student need and faculty expertise indicate. Sub-title varies; may be repeated for credit with a different sub-title. Prerequisites: Hist 131 and 132 or permission of instructor.

HIST 486 **3 Credits**
STUDIES IN MODERN EUROPE (3 + 0)
This course is a study of selected important topics in modern European history. These include World War I, European Fascism and National Socialism, European Marxism, and World War II. The course will be offered as student need and faculty expertise indicate. Sub-title varies; may be repeated for credit with a different sub-title. Prerequisite: Hist 102 or permission of instructor.

Humanities

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

Journalism and Public Communications

The Department of Journalism and Public Communications offers undergraduate programs leading to the degree of Bachelor of Arts.

A student takes a core program of professional courses totaling 21 credits and selects one of five areas of concentration for an additional 15 credits. These areas of concentration, or options, are in journalism, telecommunications and film, public relations and advertising, photography or in a combination.

The core program and the various options are designed to provide students with basic knowledge about gathering information, assessing it, processing it, and presenting it.

Because of the exacting requirements for the successful communicator, broad scholarship is emphasized. In addition to professional courses, study is required in as many possible other fields, such as anthropology, economics, history, language, philosophy, political science, psychology, sociology, and the sciences, so that the student may attain the background which is indispens-

able to leadership in public communications. Graduates of the department are prepared for rapid professional development and polish upon entering a career in public communications.

Students planning to take public communications classes should know how to type as all writing classes require use of a typewriter or VDT and work prepared for most classes must be typed.

BACHELOR OF ARTS

1. Complete the General University Requirements, on pp. 67-74 and the College of Arts and Sciences Degree Requirements on pp. 77-81.
2. Complete core courses for the major (21 credits).
3. Complete a minimum of 15 credits in one Area of Concentration.
4. Complete with a "C," or better, any course that is a prerequisite before proceeding to the advanced course.
5. At least 48 upper-division credits are required to graduate.
6. A total of 120 credits is required for the degree.

Credits

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

Areas of Concentration

(Select no more than 15 credits in one area)

Journalism—Option I
- JPC 212—Editing . . . 3
- JPC 215—History of Mass Communication . . . 3
- JPC 300—Photojournalism . . . 3
- JPC 301—Advanced Newswriting . . . 3
- JPC 324—Graphics and Publication Design . . . 3
- JPC 341—Broadcast Journalism Production . . . 3
- JPC 400—Practicum . . . 1-3
- JPC 401—Specialized Writing . . . 3
- JPC 440—The Press: Issues and Answers . . . 3
- JPC 450—Internship in Journalism . . . 3
- JPC 490—Selected Topics in Communication . . . 3

Public Relations and Advertising—Option II
- JPC 212—Editing . . . 3
- JPC 215—History of Mass Communication . . . 3
- JPC 320—Introduction to Public Relations . . . 3
- JPC 324—Graphics and Publication Design . . . 3
- JPC 328—Advertising Campaign . . . 3
- JPC 330—Advanced Public Relations . . . 3
- JPC 400—Practicum . . . 1-3
- JPC 401—Specialized Writing . . . 3
- JPC 440—The Press: Issues and Answers . . . 3
- JPC 451—Internship in Public Relations or Advertising . . . 3
- JPC 490—Selected Topics in Communication . . . 3

Telecommunications and Film—Option III
- JPC 215—History of Mass Communication . . . 3
- JPC 310—Audio Production . . . 3
- JPC 316—Production for Film and Television . . . 3
- JPC 325—Writing for Film and Television . 3
- JPC 341—Broadcast Journalism Production . . . 3
- JPC 350—Directing for Film and Television . . . 3
- JPC 400—Practicum . . . 1-3
- JPC 416—Telecommunication in Society . 3
- JPC 440—The Press: Issues and Answers . . . 3
- JPC 452—Internship in Telecommunication . . . 3
- JPC 490—Selected Topics in Communication . . . 3

Photography—Option IV
- JPC 215—History of Mass Communication . . . 3
- JPC 300—Photojournalism . . . 3
- JPC 303—Intermediate Photography . . . 3
- JPC 322—Experimental Photography . . . 3
- JPC 323—Color Photography . . . 3
- JPC 367—History of Photography . . . 4
- JPC 400—Practicum . . . 1-3
- JPC 402—Advanced Photography . . . 3
- JPC 440—The Press: Issues and Answers . . . 3
- JPC 453—Internship in Photography . . . 3
- JPC 490—Selected Topics in Communication . . . 3

General Communication—Option V
As a fifth option, students may take a cross section of the above courses upon justification to and approval of advisor.

MINOR IN JOURNALISM AND PUBLIC COMMUNICATIONS

Complete JPC 101, 111, 201 and at least 9 additional JPC credits (6 or more upper-division) excluding internships.

Courses in Journalism and Public Communications

JPC 101 **3 Credits**
INTRODUCTION TO MASS COMMUNICATION (3 + 0)
A survey of the media of mass communication and their functions in modern society: newspapers, magazines, photography, motion pictures, radio and television, advertising, and public relations.

JPC 111 **3 Credits**
UNDERSTANDING AURAL AND VISUAL COMMUNICATION (3 + 0)
Aural and visual literacy and appreciation. The course studies how sounds and images are used to inform, entertain, persuade and transmit culture. Radio, film and television programs are analyzed: how they are made, their processes and how they affect individuals and society.

JPC 201 **3 Credits**
NEWSWRITING (2 + 3)
Structure of news stories, various news leads and feature stories; gathering and evaluating information for simple news stories; writing stories. Prerequisites: JPC 101, Engl 211 or 213 or 311, typing ability, and permission of instructor.

JPC 203/ART 224 **3 Credits**
INTRODUCTORY PHOTOGRAPHY (2 + 3)
Basic principles of photography. How the camera functions and the utilization of these features for artistic expression. Processing and printing of black and white film. Laboratory and classroom demonstrations.

JPC 212 **3 Credits**
EDITING (3 + 0)
Editing copy, writing headlines and captions, cropping and sizing pictures. Prerequisite: JPC 201.

JPC 215 **3 Credits**
HISTORY OF MASS COMMUNICATION (3 + 0)
Development of the print, film, and broadcast communication media from their beginnings to the present, and their roles as institutions in American society.

JPC 300 **3 Credits**
PHOTOJOURNALISM I (2 + 3)
Ways and techniques behind creating effective photos and photo essays for newspapers, magazines, and television. Learning to recognize, develop and create photo stories; how to coordinate words and photos and to lay them out on a page. Exploration of photo editing techniques. Presentation procedure for finished material to potential markets. Prerequisite: JPC 203/Art 224.

JPC 301 **3 Credits**
ADVANCED NEWSWRITING (2 + 3)
Advanced newsgathering and writing techniques covering a wide scope of subjects. Emphasis is on reporting in the community under conditions approximating those of a newsroom. Prerequisite: JPC 201.

JPC 303/ART 324 **3 Credits**
INTERMEDIATE PHOTOGRAPHY (2 + 3)
Further development of skills learned in Introductory Photography. Photographic perception or awareness. Ideas and concepts, the "line print" are areas that will be stressed. Assignments with deadlines will be given to develop discipline. Special darkroom techniques will be introduced as a tool for further investigation. Prerequisite: Art 224/JPC 203 or permission of instructor.

JPC 310 **3 Credits**
AUDIO PRODUCTION (2 + 3)
Techniques of sound production. Survey of the history and formats of radio. Audio production techniques are introduced for radio, television, film, and sound/slide presentations. Students produce documentary, dramatic or commercial studio projects. Prerequisite: JPC 111.

JPC 316 **3 Credits**
PRODUCTION FOR FILM AND TELEVISION (2 + 3)
Principles and techniques of video and film production; concepts, script, production planning, camera, audio, lighting, and editing. Portable color video cameras and videotape editing systems are used to teach the basic principles common to both film and television production. Prerequisite: JPC 111.

JPC 320 **3 Credits**
INTRODUCTION TO PUBLIC RELATIONS (3 + 0)
Function of public relations and its role in society. Principles, history and practice of public relations in business, educational institutions, social welfare organizations, government and military services; process of influencing and public opinion; responsibilities of the public relations practitioner to his principals, media and public.

JPC 322/ART 322 **3 Credits**
EXPERIMENTAL PHOTOGRAPHY (2 + 3)
Exploration of various special effects, techniques; emphasis on creativity. May be repeated once for credit. Prerequisite: JPC 303/Art 324, or permission of instructor.

JPC 323/ART 323 **3 Credits**
COLOR PHOTOGRAPHY (2 + 3)
Advanced techniques in color transparencies and color printing; creative use of color. Students will provide specified graphic arts tools. Prerequisite: JPC 203/Art 224.

JPC 324 **3 Credits**
GRAPHICS AND PUBLICATION DESIGN (2 + 3)
Understanding of design principles, graphics, typography and layout for various types of publications, and study of print production methods. Practice is combined

with theory. Students provide specified graphics arts tools. Permission of instructor required.

JPC 325 **3 Credits**
WRITING FOR FILM AND TELEVISION (3 + 0)
Study and practice in writing for film and television, including dramatic, docu-dramatic, educational and documentary forms. The course will concentrate on the development of basic visualization skills for writers and techniques in proposal, concept, treatment and scriptwriting.

JPC 326 **3 Credits**
PRINCIPLES OF ADVERTISING (3 + 0)
Theory and practice of advertising; including strategy, media use, creation and production of advertisements and measurement of advertising effectiveness.

JPC 328 **3 Credits**
ADVERTISING CAMPAIGN (3 + 0)
Planning and execution of advertising campaign, marketing and consumer research, organization and function of advertising agencies, selection of media, etc. Prerequisite: JPC 326.

JPC 330 **3 Credits**
ADVANCED PUBLIC RELATIONS (3 + 0)
Use of controlled and uncontrolled (public) media to achieve motivation of target audiences; case studies and typical problems, planning and preparation of communication materials; application of public relations concepts and techniques. Prerequisites: JPC 320, and JPC 201, 212, or permission of the instructor.

JPC 341 **3 Credits**
BROADCAST JOURNALISM PRODUCTION (2 + 3)
Focus on all phases of broadcast news from laboratory practice in gathering and editing to contemporary trends and issues in broadcast journalism; laboratory experience involves tapes and films; all work done against absolute deadlines. Prerequisite: JPC 201, JPC 310, JPC 316.

JPC 350 **3 Credits**
DIRECTING FOR FILM AND TELEVISION (2 + 3)
Film and video authorship; individual projects. The course emphasizes the role of director as author, and stresses advanced techniques in dramatic or documentary student projects. Prerequisite: JPC 316.

JPC 367/ART 367 **3 Credits**
HISTORY OF PHOTOGRAPHY (3 + 0)
This course will examine the evolution of photography from 1816 to the present time. This evolution will be considered in terms of style, approach, content and form and will examine the major trends which have dominated the evolution of photography in Europe and America.

JPC 400 **1-3 Credits**
PRACTICUM (1-3 + 0-6)
Combines practical application of theories, concepts, and practices with classroom instruction. Production experience may be in areas of journalism, telecommunications, public relations or advertising, and photography. Variable credits determined by instructor. No more than six credits may be applied to the requirements for graduation. Permission of instructor required.

JPC 401 **3 Credits**
SPECIALIZED WRITING (3 + 0)
A course for students interested in writing in-depth news background and feature articles for publication in newspapers and/or magazines. Information gathering from a variety of selected fields. Includes discussion of story ideas, writing techniques and marketing procedures for free-lance work. Prerequisite: JPC 301 or permission of instructor.

JPC 402/ART 424 **3 Credits**
ADVANCED PHOTOGRAPHY (2 + 3)
Designed for individual portfolio development. With instructor approval, students will establish goals and criteria for the development of images that will reflect their own individual expression. Prerequisite: Permission of instructor. May be repeated once for credit.

JPC 405/ART 423 **3 Credits**
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. Prerequisites: JPC 303/ART 324 or permission of the instructor. May be repeated once for credit.

JPC 413/JUST 413 **3 Credits**
COMMUNICATIONS LAW (3 + 0)
Legal rights, privileges, and regulations of press, radio, television, and films; libel, contempt, copyright, rights of privacy; decisions of regulatory bodies.

JPC 416 **3 Credits**
TELECOMMUNICATION IN SOCIETY (3 + 0)
The social effects of the new electronic media. Investigate how the new technologies such as videotape/videodisc, video text/teletext, cable and interactive media, influence relationships between the individual and society.

JPC 435 **3 Credits**
COMMUNICATION 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

JPC 440 **3 Credits**
THE PRESS: ISSUES AND ANSWERS (3 + 0)
A comprehensive study of how effectively the press (print and electronic) responds today to its obligations in the varied and demanding society it is duty-bound to serve.

JPC 450 **3 Credits**
INTERNSHIP IN JOURNALISM (0 + 9)
Professional work experience in appropriate areas of Journalism. Open to qualified students receiving faculty recommendation.

JPC 451 **3 Credits**
INTERNSHIP IN PUBLIC RELATIONS OR ADVERTISING (0 + 9)
Professional work experience in appropriate areas of public relations or advertising. Open to qualified students receiving faculty recommendation.

JPC 452 **3 Credits**
INTERNSHIP IN TELECOMMUNICATION (0 + 9)
Professional work experience in appropriate areas of telecommunication. Open to qualified students receiving faculty recommendation.

JPC 453 **3 Credits**
INTERNSHIP IN PHOTOGRAPHY (0 + 9)
Professional work experience in appropriate areas of photography. Open to qualified students receiving faculty recommendation.

JPC 490 **3 Credits**
SELECTED TOPICS IN COMMUNICATION (3 + 0)
Focus on current topics related to a specific area of communication. Specific topics to be announced. May be repeated for credit. A maximum of 3 credits may be applied to the 36 credit minimum for the JPC major.

Library Science

LS 101 **3 Credits**
LIBRARY SKILLS
An independent study course in college library skills and some resources and facilities common to academic libraries in general and to the University Library in particular. No class sessions are held; the student works at his individual rate and on his own time schedule.

LS 302 **1 Credit**
INFORMATION SOURCES IN THE HUMANITIES
Introduction of methods of library research requiring use of bibliographies, reference books, indexes and abstracts for the Humanities disciplines, including Philosophy, Religion, the Arts, Language, and Literature.

LS 303 **1 Credit**
INTRODUCTION TO U.S. GOVERNMENT DOCUMENTS
This course introduces materials and methods of library research with use of Federal publications.

LS 305 **1 Credit**
INFORMATION SOURCES IN THE SOCIAL SCIENCES
This course introduces methods of library research with the use of bibliographies, reference books, computer data bases, indexes and abstracts for the Social Sciences including history, geography, economics, business, sociology, anthropology, psychology, and education.

LS 306 **1 Credit**
INFORMATION SOURCES IN SCIENCE (1 + 0)
Introduction to literature research in the physical, natural, engineering and health sciences. Techniques for utilizing indexes, abstracts, handbooks, and other reference tools in the various disciplines will be taught. Sources specific or particularly relevant to Alaska will be covered.

LS 410 **3 Credits**
INTRODUCTION TO ARCHIVES ADMINISTRATION
This course is an introduction to the basic principles of archives and manuscripts administration. Course includes: discussions of principles and terminology, records appraisal and management, the arrangement of description of collections, conservation, security and outreach. Prerequisite: Graduate or upper level students with concentration in the Humanities or the Social Sciences.

Linguistics

LING 101 **3 Credits**
THE NATURE OF LANGUAGE (3 + 0)
A beginning course in the study of language. An introduction to the systematic analysis of human language and the description of its grammatical structure, distribution, and diversity.

LING 110 **3 Credits**
REASONING THROUGH GRAMMAR CONSTRUCTION (3 + 0)
A course in nonquantitative symbol manipulation which deals with the formal symbol system underlying natural languages. Problems representing the patterns in natural language data are solved in grammar construction exercises.

Mathematics

The well-trained mathematician is needed in many sectors of the community including business, government, and education. Depending upon the mathematics electives chosen, the Bachelor of Science degree in mathematics is a strong basis from which to seek employment upon graduation or to pursue postgraduate studies.

The first three years of the recommended mathematics program offered at UAA give students an excellent foundation for any career involving mathematics. In the fourth year of study, the student may choose mathematics electives.

The University's students have taken and done well on the prestigious national William Lowell Putnam examination. The Department of Mathematical Sciences has two computer laboratories: one consisting of microcomputers and the other, terminals to a Digital PDP/44 computer. Also, students have access to three VAX and a Honeywell computer.

BACHELOR OF ARTS

BACHELOR OF SCIENCE

1. Complete the General University Requirements, on pp. 67-74 and the College of Arts and Sciences Degree Requirements on pp. 77-81.
2. Complete the following courses: Math 200,

201, 202, 302, 303, 314, 321, 324, 410 or 422, and AS 307.

3. Complete three additional courses applying advanced mathematical techniques selected according to the student's interests. One of these courses must be a computer language course.
4. The program including electives must be developed with an academic advisor from the College of Arts and Sciences and be approved by the Mathematics chairperson.
5. At least 48 upper-division credits are required to graduate.
6. A total of 120 credits is required for each degree.

BA DEGREE REQUIREMENTS FOR A MAJOR IN MATHEMATICS WITH A TEACHING CERTIFICATE

1. Complete the following courses: Math 200, 201, 202, 303, 305, 314, 420; AS 307.
2. Complete all requirements for the teaching certificate.
3. Complete three additional courses applying advanced mathematical techniques selected according to the student's interest. One of these courses must be a computer language course.
4. The program including electives must be developed with an academic advisor from the College of Arts and Sciences and be approved by the Mathematics chairperson.
5. Complete the General University Requirements on pp. 67-74 and the College of Arts and Sciences Degree Requirements on pp. 77-81.
6. At least 48 upper-division credits are required to graduate.
7. This degree may require at least 136 credits to complete.

MINOR IN MATHEMATICS

A minor in Mathematics requires completion of Math 200, 201, 202, in addition to 6 approved upper-division Math credits.

Courses in Mathematics

MATH 106 **6 Credits**
COLLEGE ALGEBRA AND TRIGONOMETRY (6 + 0)

Review of high school algebra, determinants, matrices, topics in the theory of equations, systems of equations, inequalities, curve sketching, probability, application, and plane trigonometry with emphasis on the analytical and periodic properties of trigonometric functions. Covers logarithms, binomial theorem, and mathematical induction. Prerequisite: Two years of high school algebra with a grade of "C" or better.

MATH 107 **3 Credits**
COLLEGE ALGEBRA (3 + 0)

Review of high school algebra, determinants, matrices, topics in the theory of equations, systems of equations, inequalities, curve sketching, probability and applications. Logarithms, binomial theorem, and mathematical induction. Prerequisites: Two years of high school algebra with a grade of "C" or better.

MATH 108 **3 Credits**
TRIGONOMETRY (3 + 0)

Plan trigonometric functions, negative angles, solving right triangles, solving oblique triangles, graphs of the trigonometric functions, and DeMoivre's Theorem. Prerequisites: Two years of high school algebra with a grade of "C" or better, or Math 107.

NOTE: A student may apply no more than 6 credits from any combination of Math 106, 107 and 108 toward the graduation requirements for a baccalaureate degree.

MATH 200 **4 Credits**
CALCULUS (4 + 0)

Review of functions and analytic geometry, limits, derivatives of trigonometric and rational algebraic functions, curve sketching, basic integration of power functions, the definite integral, and applications of differentiation and integration. Prerequisites: either Math 106 or Math 107 and Math 108.

MATH 201 **4 Credits**
CALCULUS (4 + 0)

Differentiation and integration of exponential, logarithmic and trigonometric functions. Parametric equations, arc length, polar coordinates, techniques of integration, and infinite series. Applications of the above. Prerequisite: Math 200 or equivalent.

MATH 202 **4 Credits**
CALCULUS (4 + 0)

Vectors, partial differentiation and multiple integration. Prerequisite: Math 201 or equivalent.

MATH 246 **3 Credits**
MODERN MATH CONCEPTS FOR ELEMENTARY SCHOOL (3 + 0)

Covers the following topics and their importance in the elementary classroom: Measurement (basic and metric), Computer Programming, Calculators, Problem Solving Sequences, Geometry (Plane and Solid), Graphing, Probability and Statistics. Included are use of appropriate materials for teaching these topics. Prerequisite: Math Competency Test, offered by the School of Education.

MATH 270 **3 Credits**
APPLIED FINITE MATHEMATICS FOR THE MANAGERIAL SCIENCES (3 + 0)

Linear equations and inequalities, algebra of matrices, introductory linear programming, logarithms and exponential functions. Applications emphasizing the relationships of these mathematical concepts to quantitative

decision-making in managerial sciences. Prerequisite: Two years high school algebra or equivalent.

MATH 272 **3 Credits**
CALCULUS FOR THE MANAGERIAL SCIENCES (3 + 0)
Functions and graphs, differentiation, exponential and logarithmic functions, antidifferentiation and integration, functions of several variables. Applications of these mathematical concepts. Prerequisite: Math 270 or Math 107 or equivalent.

MATH 302 **3 Credits**
ORDINARY DIFFERENTIAL EQUATIONS (3 + 0)
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, applications. Prerequisite: Math 202.

MATH 303 **3 Credits**
INTRODUCTION TO MODERN ALGEBRA (3 + 0)
Introduction to sets, groups, rings, and fields. Prerequisite: Math 202.

MATH 305 **3 Credits**
GEOMETRY (3 + 0)
Topics selected from such fields as Euclidean and non-Euclidean plane geometry, affine geometry, projective geometry, topology. Prerequisite: Math 202.

MATH 306 **(3 + 0)**
FINITE MATHEMATICAL STRUCTURES (3 + 0)
Introduction to graph theory and combinatorial analysis. Problem solving techniques include generating functions, recurrence relations and network flows. Develops the type of mathematical thinking used in computer science and operations research. Prerequisite: Math 201 or permission of instructor.

MATH 310 **3 Credits**
NUMERICAL ANALYSIS (3 + 0)
Direct and iterative solutions of systems, of equations, interpolation, numerical differentiation and integration, numerical solutions or ordinary differential equations, error analysis. Prerequisite: Math 202.

MATH 314 **3 Credits**
LINEAR ALGEBRA (3 + 0)
Linear equations, finite dimensional vector spaces, matrices, determinants, linear transformations, characteristic values. Inner product spaces. Prerequisite: Math 201.

MATH 321 **4 Credits**
ANALYSIS OF SEVERAL VARIABLES (4 + 0)
Vector calculus, exterior calculus, optimization techniques, integration with applications. 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.

MATH 324 **3 Credits**
ADVANCED CALCULUS (3 + 0)
Investigations of the limit concept with special reference to functions on the real line, sequences, and series of real numbers and integration of continuous functions. Prerequisite: Math 202.

MATH 371 **3 Credits**
PROBABILITY (3 + 0)
Probability spaces, conditional probability, random variables, continuous and discrete distributions, expectation, moments, moment generating functions, and characteristic functions. Prerequisite: Math 202.

MATH 403 **3 Credits**
INTRODUCTION TO REAL ANALYSIS (3 + 0)
Sets, real numbers, functions, topology of metric spaces mappings. Prerequisite: Math 324.

MATH 406 **1-4 Credits**
TOPICS IN APPLIED MATHEMATICS (1 + 0-4 + 0)
The mathematical methods underlying treatment of specific real-world problem areas. The applications will vary and course credit level will be determined at time of offering. Methods will be analytical, statistical, discrete, and algebraic in combination. This course is primarily for senior-level Math, CS, Science, and Engineering students, and may be taken more than once for credit. Prerequisite: Permission of instructor.

MATH 407 **3 Credits**
MATH 408 **3 Credits**
MATHEMATICAL STATISTICS (3 + 0) (3 + 0)
Distribution of random variables and functions of random variables, interval estimation, point estimation, sufficient statistics, order statistics, and tests of hypotheses. Prerequisite: Math 202.

MATH 410 **3 Credits**
INTRODUCTION TO COMPLEX ANALYSIS (3 + 0)
Analytic Function, Cauchy's Theorem. Sequences and series. Prerequisite: Math 202.

MATH 420 **3 Credits**
FOUNDATIONS OF MATHEMATICS (3 + 0)
This course is designed to acquaint prospective secondary teachers with the history of the development of mathematical concepts in algebra, geometry, number theory, analytical geometry and calculus from ancient times. Modern trends in secondary school mathematics and interrelationship with other disciplines and modern technology will be emphasized. Prerequisite: Math 202.

MATH 422 **3 Credits**
PARTIAL DIFFERENTIAL EQUATIONS (3 + 0)
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 chosen by instructor. Prerequisite: Math 302.

MATH 487 **1-3 Credits**
MATHEMATICS PRACTICUM (0 + 3)
Provides to upper-division mathematics majors the experience of teaching mathematics. Student will be responsible for a 3-hour per week mathematics laboratory. No more than three credits can be applied to a degree. Prerequisites: Math 202 and permission of instructor.

MATH 601 **3 Credits**
ABSTRACT ALGEBRA (3 + 0)
Topics in groups, rings, fields, linear algebra, modules, categories, and Galois Theory. Prerequisites: Math 303 and Math 314.

MATH 604 **3 Credits**
ELEMENTARY NUMBER THEORY (3 + 0)
Study of integers and their properties. This study will include congruencies, diophantine equations, distribution of primes, quadratic reciprocity, and algebraic numbers. Prerequisite: Math 303.

MATH 607 **3 Credits**
MATHEMATICAL STATISTICS (3 + 0)
Probability, discrete and continuous random variables, multivariate probability distributions, estimators and their properties, limit theorems, hypothesis testing, linear models, analysis of variance, nonparametric statistics. Prerequisites: Math 407 and Math 408.

MATH 611 **3 Credits**
MATHEMATICAL MODELING (3 + 0)
Techniques for constructing mathematical models to simulate real world processes. May involve the use of computers.

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.

Music

Music majors will be required to participate in at least one ensemble each semester they are enrolled, whichever is most appropriate to the student's performance area. Piano majors will receive ensemble credit by enrolling in the Piano Chamber Music and Accompanying class.

Attendance at recitals and concerts provides students with a variety of musical experiences which expand their regular curriculum. Therefore, attendance is mandatory for all majors. Recital attendance is a serious consideration at the time of review for advancement to upper-division standing.

Furthermore, each Music Major's Recital Attendance record will affect by one letter grade the semester private lesson grade or that of the class most directly related to applied music, i.e., Master Class, Chamber Music, Ensembles.

BACCALAUREATE DEGREES IN MUSIC

At the end of the sophomore year, all music majors must demonstrate a satisfactory level of proficiency of performance in their applied major in order to advance to upper-division courses in music. A student may elect to continue study at the 200 level in attempting to pass requirements for admission to upper-division study.

A piano proficiency (Mus 153—Functional Piano) jury examination must be successfully completed by the end of the music major's second year in the program. This examination will consist of 1) performance of a work equivalent in difficulty to a Bach two-part invention, or Clementi or Kuhlau sonatina; 2) sight reading of a four-part Chorale by Bach; 3) harmonization and transposition of a simple melody.

Students who desire to enroll in music theory courses will complete a placement examination and be allowed to enter at their appropriate level.

All applied music students enrolled in Mus 161 who desire to advance to upper levels must take jury finals.

All applied music students enrolled in Mus 162 through Mus 462 are required to perform in jury finals at the end of each semester.

All music majors are required to perform in at least one student recital each semester of study.

BACHELOR OF ARTS

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

1. Complete the General University Requirements, on pp. 67-74 and the College of Arts and Sciences Degree Requirements on pp. 77-81.
2. Complete the following major requirements.

	Credits
Mus 131-132—Basic Theory	6
Mus 133-134—Sightsinging and Ear Training	4
Mus 153—Functional Piano (can be passed successfully within the first four semesters)	1
Mus 161-462—Private Lessons (on major instrument)	4
Mus 221-222—History of Music	6
Mus 231-232—Advanced Theory	6
Mus 233-234—Sightsinging and Ear Training	4
Mus 251—Basic Conducting	2
Mus 307—Ensembles	10
Mus 331—Form and Analysis	3
Mus 472—Master Class	0-8

3. At least 48 upper-division credits are required to graduate.
4. A total of 130 credits is required for the degree.

BACHELOR OF MUSIC—PERFORMANCE

The Bachelor of Music in Performance offers intense specialization for those desiring professional training in music—the vocal and instrumental major.

1. Complete the General University Requirements on pp. 67-74.
2. Complete the College of Arts and Sciences Degree Requirements for the BM degree on pp. 77-81.
3. Complete the following major requirements.

	Credits
Required Music Courses:	
Mus 131-132—Basic Theory	6
Mus 133-134—Sightsinging and Ear Training	4
Mus 153—Functional Piano (can be passed successfully within the first four semesters)	1
Mus 161-462—Private Lessons (on major instrument)	16
Mus 221-222—History of Music	6
Mus 231-232—Advanced Theory	6
Mus 233-234—Sightsinging and Ear Training	4
Mus 251—Basic Conducting	2
Mus 307—Ensembles	16
Mus 472—Master Class	0-16

Ten upper-division credits to be selected from the following courses:

Mus 331—Form and Analysis	3
Mus 351—Choral Conducting	2
OR	
Mus 352—Instrumental Conducting	2
Mus 431—Counterpoint	3
Mus 432—Orchestration	3
Mus History or Literature Electives	5-6

4. At least 48 upper-division credits are required to graduate.
5. A total of 129-145 credits is required for the degree.

A half recital is required in the junior year and a full recital in the senior year. The student, in both recitals, must demonstrate the ability to perform satisfactorily in public a program of artistic merit.

BACHELOR OF MUSIC—ELEMENTARY EDUCATION

The Bachelor of Music—Elementary Education degree offers thorough preparation in teacher training with sufficient time to develop excellence in performance areas.

1. Complete the General University Requirements on pp. 67-74.
2. Complete the College of Arts and Sciences Degree Requirements for the BM degree on pp. 77-81. Must include Psy 111.
3. Complete the following major requirements:

	Credits
Required Music Courses:	
Mus 131-132—Basic Theory	6
Mus 133-134—Sightsinging and Ear Training	4
Mus 153—Functional Piano	1
Mus 161-462—Private Lessons (on major instrument)	8
Mus 221-222—History of Music	6
Mus 231-232—Advanced Theory	6
Mus 233-234—Sightsinging and Ear Training	4
Mus 251—Basic Conducting	2
Mus 307—Ensembles	16
Mus 315—Music Methods and Techniques	10
Mus 331—Form and Analysis	3
Mus 351—Choral Conducting	2
OR	
Mus 352—Instrumental Conducting	2
Mus/Ed 409—Music in the Elementary School	3
Mus 432—Orchestration	3
Mus 472—Master Class	0-8
Required Education Courses:	
Ed 201—Orientation to Education	3
Ed 212—Human Development and Learning	3
Ed 313—Educational Psychology	3
Ed 332—Tests and Measurements	3
Ed 420—Developing Communication Competencies	12
Ed 423—History, Philosophy, & Sociology of Education	3
Ed 452E—Student Teaching—Elementary	12

4. At least 48 upper-division credits are required to graduate.
5. A total of 171-179 credits is required for the degree.

A half recital on the student's major instrument is required in the second year.

BACHELOR OF MUSIC—SECONDARY EDUCATION

The Bachelor of Music—Secondary Education degree offers the student extensive training in general education and also proficiency in developing and directing music programs at the secondary level. During the course of his studies the student is also given sufficient time to develop excellence in performance areas.

1. Complete the General University Requirements on pp. 67-74.
2. Complete the College of Arts and Sciences

Degree Requirements for the BM degree on pp. 77-81.

3. Complete the following major requirements:

	Credits
Required Music Courses:	
Mus 131-132—Basic Theory	6
Mus 133-134—Sightsinging and Ear Training	4
Mus 153—Functional Piano (can be passed successfully anytime within the first four semesters)	1
Mus 161-462—Private Lessons (on major instrument)	8
Mus 221-222—History of Music	6
Mus 231-232—Advanced Theory	6
Mus 233-234—Sightsinging and Ear Training	4
Mus 251—Basic Conducting	2
Mus 307—Ensembles	16
Mus 315—Music Methods and Techniques	10
Mus 331—Form and Analysis	3
Mus 351—Choral Conducting	2
OR	
Mus 352—Instrumental Conducting	2
Mus/Ed 405—Methods of Teaching Music	3
Mus 432—Orchestration	3
Mus 472—Master Class	0-8
Required Education Courses:	
Ed 201—Orientation to Education	3
Ed 212—Human Development and Learning	3
Ed 313—Educational Psychology	3
Ed 332—Tests and Measurements	3
Ed 410—Methods for Reading in the Secondary School	3
Ed 417—Language Across the Curriculum	3
Ed 419—Exceptionalities: Culture/Learning	3
Ed 423—History, Philosophy, & Sociology of Education	3
Ed 452S—Student Teaching—Secondary	12

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

5. A total of 168-176 credits is required for the degree.

A half recital on the student's major instrument is required in the senior year.

MINOR IN MUSIC

Mus 104 and 131 or 132	6
Mus 122 or 221 or 222	3
Mus 307	4
Mus 161-462	2
Mus 313 or 315 or 472 (to include 6 or more upper-division credits)	3

Courses in Music

MUS 104 **3 Credits**
FUNDAMENTALS OF MUSIC (3 + 0)
Introduction to the basic materials of music. Study of intervals, scales and key signatures, rhythm, and meter. Keyboard orientation. Basics of sightsinging and ear training (offered only in the summer).

MUS 122 **3 Credits**
MUSIC: THE ART OF LISTENING (3 + 0)
Expansion of the student's understanding and enjoyment of various musical styles. The course investigates the basic elements of music and surveys trends in popular, jazz, classical, and folk music.

MUS 131 **3 Credits**
BASIC THEORY I (3 + 0)
The organization of musical materials with emphasis on diatonic functional harmony. Introduction to part writing and to keyboard skills. Should be taken concurrently with Mus 133.

MUS 132 **3 Credits**
BASIC THEORY II (3 + 0)
Continuation of Mus 131 with emphasis on part writing and melody harmonization. Non-harmonic tones and simple modulation. Development of keyboard skills. Should be taken concurrently with Mus 134. Prerequisite: Mus 131 or permission of instructor.

MUS 133 **2 Credits**
SIGHTSINGING AND EAR TRAINING I (2 + 0)
The development of basic skills in hearing and reading music. The study of intervals, chords, and common metrical patterns. Should be taken concurrently with Mus 131.

MUS 134 **2 Credits**
SIGHTSINGING AND EAR TRAINING II (2 + 0)
Continuation of Mus 133 with emphasis on rhythmic, melodic and harmonic dictation. Should be taken concurrently with Mus 132. Prerequisite: Mus 133 or permission of instructor.

MUS 153 **1 Credit**
FUNCTIONAL PIANO (1 + 0)
Instruction designed to help music majors obtain the performance, sight-reading, and harmonization-transposition skills needed to pass the Piano Proficiency Examination. Prerequisites: Music Majors—Mus 131 or equivalent or concurrent enrollment in Mus 131.

MUS 161 **1-2 Credits**
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.

MUS 162 **1-2 Credits**
PRIVATE LESSONS (.5 + 2-1 + 4)
Continuation of Mus 161. Prerequisite: Permission of instructor.

MUS 221 **3 Credits**
HISTORY OF MUSIC I (3 + 0)
Music before 1750: studies in stylistic developments and structure from the Medieval, Renaissance, and Baroque eras within their historical context.

MUS 222 **3 Credits**
HISTORY OF MUSIC II (3 + 0)
Music since 1750: studies in stylistic developments and structure from the Classical, Romantic, and Twentieth Century eras within their historical context.

MUS 231 **3 Credits**
ADVANCED THEORY I (3 + 0)
Continued study of part writing and melody harmonization. Modulation to related keys, secondary dominants and introduction to chromatic harmony. Free style harmonization. Binary and ternary forms. Should be taken concurrently with Mus 233. Prerequisite: Mus 132 or permission of instructor.

MUS 232 **3 Credits**
ADVANCED THEORY II (3 + 0)
Continuation of Mus 231. Chromatic harmony and higher numbered chords. Introduction to 20th Century harmony. Keyboard harmonization of melodies. Should be taken concurrently with Mus 231. Prerequisite: Mus 231 or permission of instructor.

MUS 233 **2 Credits**
SIGHTSINGING AND EAR TRAINING III (2 + 0)
The development of advanced skills in hearing and reading music. Introduction to modulation and chromaticism. More complex rhythmic patterns. Should be taken concurrently with Mus 231. Prerequisite: Mus 134 or permission of instructor.

MUS 234 **2 Credits**
SIGHTSINGING AND EAR TRAINING IV (2 + 0)
Continuation of Mus 233. Should be taken concurrently with Mus 232. Prerequisite: Mus 233 or permission of instructor.

MUS 251 **2 Credits**
BASIC CONDUCTING (2 + 0)
Introduction to principles of conducting. Prerequisite: Mus 132 or permission of instructor.

MUS 261 **1-2 Credits**
PRIVATE LESSONS (.5 + 2-1 + 4)
Continuation of Mus 162. Prerequisite: Permission of instructor.

MUS 262 **1-2 Credits**
PRIVATE LESSONS (.5 + 2-1 + 4)
Continuation of Mus 261. Prerequisite: Permission of instructor.

MUS 307A **2 Credits**
PIANO CHAMBER MUSIC AND ACCOMPANYING (2 + 0)
Important course for pianists, especially designed to train them in the area of chamber music and in the art of accompanying. May be repeated for credit.

MUS 307B **2 Credits**
UNIVERSITY SINGERS (0 + 4)
The rehearsal and performance of chamber vocal literature from the Renaissance up to, and including 20th century contemporary literature. Ensemble credit for vocal majors. Prerequisite: New members by audition. May be repeated for credit.

MUS 307C **2 Credits**
UNIVERSITY WIND ENSEMBLE (2 + 0)
In-depth study of the rehearsal and performance of original band music and transcriptions from the Renaissance up to and including 20th Century Literature. Prerequisite: New members by audition. May be repeated for credit.

MUS 307D **2 Credits**
PERCUSSION ENSEMBLE (2 + 0)
The study and performance of percussion chamber music including 20th century literature for percussion as well as transcriptions of earlier music. Prerequisite: New members by audition. May be repeated for credit.

MUS 307E **2 Credits**
STRING ENSEMBLE (2 + 0)
The rehearsal and performance of works in the standard string repertoire from the Baroque era to the present. Prerequisite: New members by audition. May be repeated for credit.

MUS 313 **1-3 Credits**
OPERA WORKSHOP (0 + 3, 6 or 9)
The study, rehearsal, production, and performance of selected works from the standard operatic repertoire. May be repeated for credit.

MUS 315 **2 Credits**
MUSIC METHODS AND TECHNIQUES (2 + 0)
Instruction in voice and the basic instruments of band and orchestra as part of the teacher training program.
Brass
Woodwinds
Strings
Voice
Percussion

MUS 331 **3 Credits**
FORM AND ANALYSIS (3 + 0)
Structural principles and stylistic analysis of music of the 18th and 19th centuries. Prerequisite: Mus 232 or permission of instructor.

MUS 351 **2 Credits**
CHORAL CONDUCTING (2 + 0)
Principles of conducting and interpretation with vocal ensembles. Prerequisite: Mus 232 or permission of instructor.

MUS 352 **2 Credits**
INSTRUMENTAL CONDUCTING (2 + 0)
Principles of conducting and interpretation with instrumental ensembles. Prerequisite: Mus 232 or permission of instructor.

MUS 361 **1-2 Credits**
PRIVATE LESSONS (.5 + 2-1 + 4)
Continuation of Mus 262. Prerequisite: Permission of instructor.

MUS 362 **1-2 Credits**
PRIVATE LESSONS (.5 + 2-1 + 4)
Continuation of Mus 361. Prerequisite: Permission of instructor.

MUS 405/ED 405 **3 Credits**
METHODS OF TEACHING MUSIC (3 + 0)
Methods and problems of teaching music in junior and senior high schools with emphasis on the general Music Program. Prerequisites: Admission to Teacher Certification, 100 semester hours, Mus 232 and Ed 332 and prerequisites thereto, or permission of instructor.

MUS 409/ED 409 **3 Credits**
MUSIC IN THE ELEMENTARY SCHOOL (3 + 0)
Principles, procedures, and materials for teaching music to children at the elementary level. Prerequisites: Ed 313 and prerequisites thereto.

MUS 420 **3 Credits**
MUSIC IN THE MEDIEVAL AND RENAISSANCE PERIODS (3 + 0)
Investigation of the musical developments in Europe from 600 to 1600. Evolution of the motet, medieval and Flemish. Structures of the canti fermi. Sacred and secular monody and choralpolyphony from Gregorian Chant through Palestrina. Survey of cross-cultural influences in regard to the church, the schools: Notre Dame, Burgundian, Flemish, etc. Vocal and instrumental notation. Intensive listening and reading. Prerequisite: Mus 222 or permission of instructor.

MUS 421 **3 Credits**
MUSIC IN THE BAROQUE PERIOD (3 + 0)
Style of the music from about 1600 to 1750. Examination of style and performance practices in opera, oratorio, cantata, and other vocal forms of the period. Development of the keyboard instruments; organ, harpsichord, spinet, clavichord, virginals, and piano. Historic consideration of the instrumental evolution: strings, winds, and brasses. Cross-cultural influences: art, literature, and painting. Intensive listening and reading of contemporary documents in translation. Consideration of modern performance of old music. Prerequisite: Mus 222 or permission of instructor.

MUS 422 **3 Credits**
MUSIC IN THE CLASSICAL PERIOD (3 + 0)
Musical styles from 1720 through 1830 as exemplified by the works of Bach's sons, Haydn, Mozart, Beethoven, and others of the period. Examination of the development of sonata and concerto forms, as well as opera and chamber music. Style studies of representative examples from the works of Haydn, Mozart, and Beethoven. Musical developments in Italy, England, France, Germany, and Austria. Prerequisite: Mus 122 or permission of instructor.

MUS 423 **3 Credits**
MUSIC IN THE ROMANTIC PERIOD (3 + 0)
Study of musical trends in the 19th century. Romanticism, Nationalism, Italian Opera, the Wagnerian Drama, the Art Song for voice and piano, the character piece for piano, and the symphonic poem for orchestra, as exemplified by representative works, chosen from the music of Schubert, Berlioz, Mendelssohn, Schumann, Chopin, Liszt, Wagner, Brahms, Verdi, Tchaikowsky, and others. Related readings in other aspects of the Romantic movement. Prerequisite: Mus 222 or permission of instructor.

MUS 424 **3 Credits**
MUSIC IN THE TWENTIETH CENTURY (3 + 0)
Important manifestations and trends in music since 1900. Style studies of significant works from the modern and contemporary repertoire. Prokofieff, Stravinsky, Hindemith, Schoenberg, Bartok, the avant-garde, etc. Prerequisite: Mus 222 or permission of instructor.

MUS 431 **3 Credits**
COUNTERPOINT (3 + 0)
Study of contrapuntal techniques of the sixteenth and eighteenth centuries. Writing in appropriate vocal and instrumental forms. Prerequisite: Mus 232 or permission of instructor.

MUS 432 **3 Credits**
ORCHESTRATION (3 + 0)
Principles and practices of composing and transcribing music for various instrumental ensembles, including band and orchestra. Prerequisite: Mus 232 or permission of instructor.

MUS 461 **1-2 Credits**
PRIVATE LESSONS (.5 + 2-1 + 4)
Continuation of Mus 362. Prerequisite: Permission of instructor.

MUS 462 **1-2 Credits**
PRIVATE LESSONS (.5 + 2-1 + 4)
Continuation of Mus 461. May be repeated for credit. Prerequisite: Permission of instructor.

MUS 472 **2 Credits**
PIANO MASTER CLASS (2 + 0)
Performance, comparative analysis and discussion of the piano literature, and close examination of its styles and periods (early Baroque through 20th Century). Lecture course on the technical and interpretive aspects of the pianistic literature, evolution and development of both the instrument and the technique from their origins to the present, cross-cultural influences in regard to styles, movements, schools, etc. Illustrated by the performance of related pianistic works. Mandatory at all times for piano performance majors. 8 credits minimum required for piano majors in Music Education. May be repeated for credit.

MUS 472 **2 Credits**
VOICE MASTER CLASS (2 + 0)
Performance and discussion of the vocal literature and close examinations of its styles and periods. Opportunity for student vocalists and listeners to respectively expose themselves in a semi-public situation which is necessary to their performing ability and to build their senses of analysis and criticism. Mandatory for all voice majors at all times and in all music degrees. May be repeated for credit.

Natural Sciences

In today's highly technical world, an interdisciplinary understanding of the sciences is highly desirable, if not requisite, for opportunities for advanced study or career upward mobility. There

is no area of modern science that does not draw heavily on the basic tenets of at least one other science.

Although it is possible to follow the traditional majors in sciences, a more realistic approach is to allow for an interdisciplinary curriculum that emphasizes the interaction of the sciences. The Natural Science program provides such an alternative and is becoming recognized as the preferred academic preparation for the career objectives of increasing numbers of students.

The health science option was specifically developed for health science practitioners who would like to obtain a strong supportive background in biological and chemical sciences. It is particularly valuable for those wanting career mobility into other health sciences.

BACHELOR OF SCIENCE

1. Complete the General University Requirements, on pp. 67-74 and the College of Arts and Sciences Degree Requirements on pp. 77-81.
2. Follow a four-year curriculum developed in consultation with a faculty advisor from the College of Arts and Sciences.

Curriculum is according to study plan developed in consultation with your faculty advisor. It must include at least 50 science credits from at least two sciences in addition to one year from each of three sciences areas (Biol 107-108 or equivalent, Chem 105-106, and Phys 103-104). At least 35 upper-division credits in science are required.

SUGGESTED PROGRAM ELECTIVES

While it is true that any science credits may be used to meet the program credit hour requirements, it is necessary that your advisor approve the courses listed in your program of study. There is no minimum number of additional credits required from any science area, provided you do earn some credits from at least two disciplines, and that there are at least 35 upper-division credits.

Possible combinations include the following:
Biology and Chemistry
Biology/Psychology/Statistics
Mathematics and Chemistry

Acceptable science credits from the following may be taken at UAA, or in transfer from other accredited institutions:
Natural Resource Management
Environmental Sciences
Wildlife Management
Oceanography
Health Sciences
Engineering
Geography
Applied Statistics
Mathematics
Psychology

PREPROFESSIONAL (MEDICINE, DENTISTRY, VETERINARY MEDICINE) DEGREES

The University of Alaska, Anchorage offers several programs designed to meet all admission requirements for most professional schools. Since there is no specified preprofessional degree, students usually major in one of the sciences, such as Biological Sciences, Chemistry, or Natural Sciences. The Natural Science Degree is most flexible and can be used to meet admission requirements of specific professional schools. The degrees available in the Departments of Biological Sciences and Chemistry can be utilized as preprofessional courses of study while offering the potential for alternate careers in a wide range of science related areas. Students interested in a preprofessional course of study should contact chairpersons or coordinators of one of the programs named above.

HEALTH SCIENCES OPTION

Students who have completed an associate or baccalaureate degree in the health sciences (i.e., nursing, dental hygiene, etc.) may elect to follow the program shown below. (In all cases, the General University Requirements and the College of Arts and Sciences Degree Requirements must be met.)

	Credits
Transfer credit from health science program up to	65
Biology sequence	16
Biol 487—Comparative Anatomy of Vertebrates	
Biol 488—Vertebrate Development Anatomy	
Biol 340—General Microbiology	
Biol 361—Cell Biology	
Chemistry sequence	16
Organic Chemistry, Biochemistry I, II	
Additional science electives, including AS 307 or Math 200	17-18

Philosophy

PHIL 101 **3 Credits**
INTRODUCTION TO LOGIC (3 + 0)

An analysis of argumentation and informal fallacies; an introduction to deductive logic; and an examination of evidence, proof and testability in the sciences.

PHIL 201 **3 Credits**
INTRODUCTION TO PHILOSOPHY (3 + 0)
An introduction to the traditional topics of Western philosophy: truth, knowledge, the nature of being, good and evil. The course will examine these subjects from a systematic point of view, drawing on the whole spectrum of Western philosophers.

PHIL 211 **3 Credits**
HISTORY OF PHILOSOPHY I (3 + 0)
An introduction to the great thinkers of the Greek, Latin, Medieval and Renaissance periods in Western civilization; a comparative examination of the cosmological, religious, ethical, political and scientific ideas which shaped, intellectually, each of these epochs.

PHIL 212 **3 Credits**
HISTORY OF PHILOSOPHY II (3 + 0)
An introduction to the great thinkers of the 17th century scientific revolution, the Enlightenment, German Idealism, contemporary positivism and existentialism; a comparative examination of the cosmological, ethical, political, and scientific ideas which shape each of these periods. Prerequisite: Phil 211.

PHIL 301 **3 Credits**
ETHICS (3 + 0)
An introduction to the great moral thinkers of Western civilization and the use of their ethical systems in an attempt to resolve contemporary issues such as abortion, euthanasia, equal rights, civil disobedience and professional ethics.

PHIL 401 **3 Credits**
AESTHETICS (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.

PHIL 421 **3 Credits**
PHILOSOPHY OF THE SOCIAL SCIENCES (3 + 0)
A general introduction to the philosophical problems common to the social sciences, focusing on issues concerning method, epistemology and modes of explanation.

Physics

PHYS 103 **4 Credits**
BASIC PHYSICS I (3 + 3)
Non-calculus, introduction to study of motion, forces, gravitation; fluids; introduction to thermo-dynamics. Prerequisites: college algebra and trigonometry or equivalent.

PHYS 104 **4 Credits**
BASIC PHYSICS II (3 + 3)
Non-calculus, introduction to thermo-dynamics, waves, electricity and magnetism, light. Prerequisite: Phys 103.

PHYS 211 **4 Credits**
GENERAL PHYSICS (3 + 3)
Calculus based course covering mainly classical mechanics (statics and dynamics of translational and rotational motion), and some thermo-dynamics. Prerequisites: Math 200; high school physics or non-calculus college level physics.

PHYS 212 **4 Credits**
GENERAL PHYSICS (3 + 3)
Calculus based course emphasizing simple electromagnetic theory, geometrical and simple optics, and selected topics in modern physics. Prerequisites: Math 200 and Phys 211. Math 201 would be useful.

PHYS 213 **3 Credits**
ELEMENTARY MODERN PHYSICS (3 + 0)
Elementary level modern physics, including special relativity, atomic and molecular physics, nuclear physics, solid-state physics, elementary particles, simple transport theory, kinetic theory and concepts of quantum mechanics. Prerequisites: Phys 211 and 212.

PHYS 685 **1 Credit**
ADVANCED TOPICS IN PHYSICS (1 + 0-0 + 3)
Intensive, one-week long studies on narrowly defined topics in Physics. Emphasis on content as well as on instructional techniques. Prerequisite: Graduate standing or permission of instructor.

Political Science

Politics and government are ubiquitous human activities. The study of politics and of political behavior has been a focus for human intellectual endeavor throughout man's history. In its oldest definition, political science was called the master science. More modern definitions are less comprehensive, but of the social sciences, political science has the least definite boundaries and the widest concerns. Consequently, political science covers many different subjects and uses diverse methods.

The political science program is designed to serve the needs of students enrolling as political science majors by providing a comprehensive foundation in the subject matter of the discipline. The program also provides courses for students who are not political science majors but who need to gain some understanding of the discipline and insights into the nature of politics.

BACHELOR OF ARTS

1. Complete the General University Requirements, on pp. 67-74 and the College of Arts and Sciences Degree Requirements on pp. 77-81.
2. Complete 18 credits of foundation courses:

	Credits
Econ 201-202—Intro Macro and Micro Economics	6
Hist 131-132—History of U.S	6
PS 101-102—Introduction to American Government and Introduction to Political Science	6

3. Complete at least one course from each of the following areas for a total of 27 credits.

Comparative Government:
PS 311-312—Comparative Politics
Governmental Institutions:
PS 330—The American Presidency
PS 331—The Legislative Process
International:
PS 321—International Relations
PS 322—U.S. Foreign Policy
PS 323—International Law and Organization
Theory:
PS 315—The American Political Tradition
PS 411—History of Political Theory I: Classical
PS 412—History of Political Theory II: Modern
PS 415—Contemporary Political Theory
Public Administration:
PS 301—Public Administration in Political Process
PS 302—Public Policy Process and Analysis
PS 480—Organizational Theory
Research Methods:
PS 352—Social Science Methods
PS 432—Research Methods
State and Local:
PS 211—State and Local Government
PS 332—Urban Government and Administration
Parties and Elections:
PS 402—Political Parties and Group Politics
PS 407—Campaigns and Elections
Political Behavior:
PS 221—Introduction to Political Sociology
PS 401—Public Opinion and Political Behavior

4. Complete an additional 6 credits of upper-division political science electives.

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

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

MINOR IN POLITICAL SCIENCE

A minor in political science requires at least 18 credits of political science, including PS 101 and 102. At least 6 credits must be upper-division.

MINOR IN PUBLIC ADMINISTRATION

A minor in public administration requires PS 101, PS 301, PS 302, PS 480 and 6 credits of approved PS electives.

Courses in Political Science

PS 101 **3 Credits**
INTRODUCTION TO AMERICAN GOVERNMENT (3 + 0)
The United States Constitution and its philosophy: the branches of government and the American political process.

PS 102 **3 Credits**
INTRODUCTION TO POLITICAL SCIENCE (3 + 0)
The concepts of political science; political processes; goals, methods, and levels of government.

PS 211 **3 Credits**
STATE AND LOCAL GOVERNMENT (3 + 0)
Organization and politics of state and local government in the United States; the Alaskan Constitution; problems of statehood in Alaska. Prerequisite: PS 101 or permission of instructor.

PS 221/SOC 221 **3 Credits**
INTRODUCTION TO POLITICAL SOCIOLOGY (3 + 0)
An introduction to the social nature of politics and to the nature and distribution of power in society. An examination of how social institutions are engaged in the political processes of different societies and of the complex relationships existing between social and political change.

PS 301 **3 Credits**
PUBLIC ADMINISTRATION IN POLITICAL PROCESS (3 + 0)
Techniques and problems of administering public policy. The changing face of the executive branch in the political process. Prerequisite: PS 101 or permission of instructor.

PS 302 **3 Credits**
PUBLIC POLICY PROCESS AND ANALYSIS (3 + 0)
The process of public policy adoption and implementation, with emphasis on the rational actor, bureaucratic, and governmental process models. Extensive use of case studies. Prerequisite: PS 101 or permission of instructor.

PS 311 **3 Credits**
INTRODUCTION TO COMPARATIVE POLITICS (3 + 0)
An introduction to the subject matter, concepts, and methods of comparative politics.

PS 312 **3 Credits**
COMPARATIVE POLITICS: CASE STUDIES (3 + 0)
Case studies of selected nation states drawn from three groups: Western democracies, communist systems, and developing countries. Prerequisite: PS 311 or permission of instructor.

PS 315 **3 Credits**
THE AMERICAN POLITICAL TRADITION (3 + 0)
The political theory of liberal democracy examined in its application to crucial events in American political history. Prerequisites: Hist 131 and 132 strongly recommended.

PS 321 **3 Credits**
INTERNATIONAL RELATIONS (3 + 0)
An introduction to the various aspects of international relations including foreign policy, international transactions and interactions, international organizations, and the international system.

PS 322 **3 Credits**
U.S. FOREIGN POLICY (3 + 0)
An introductory course in U.S. foreign policy considering the history of U.S. foreign policy and the constitutional provisions for making foreign policy. The course will also review the bases of current foreign policy by focusing on selected contemporary foreign policy problem areas.

PS 323 **3 Credits**
INTERNATIONAL LAW AND ORGANIZATION (3 + 0)
Development, structure, policies, and problems of public international law and organizations. Accomplishments and limitations of universal and regional organizations and law.

PS 330 **3 Credits**
THE AMERICAN PRESIDENCY (3 + 0)
The Presidency, its evolution, occupants, and place within the American system. Topics include presidential character, war, elections, the economy, and the Constitution. Prerequisite: PS 101 or permission of instructor.

PS 331 **3 Credits**
THE LEGISLATIVE PROCESS (3 + 0)
The legislative process in Congress and the states, lobbying, legislative roles, the theory and practice of representative government. Prerequisite: PS 101 or permission of instructor.

PS 332 **3 Credits**
URBAN GOVERNMENT AND ADMINISTRATION (3 + 0)
The problem of government in cities, the forms of city government, municipal management, relationships among levels and areas of government, and emerging patterns of urban regionalism.

PS 340 **3 Credits**
TOPICS IN CONTEMPORARY POLITICS (3 + 0)
An in-depth examination of contemporary political issues and questions. Topics vary from year to year.

PS 352/SOC 352 **3 Credits**
SOCIAL RESEARCH METHODS (3 + 0)
Introductory research methods including definition of research problems, development of hypotheses, experimental and non-experimental research design, sampling, data collection and analysis. Students are expected to participate in various field exercises and to develop critical capacities for evaluating research studies. Prerequisite: PS 102 or Soc 101.

PS 375 **3 Credits**
INTERNSHIP IN POLITICAL SCIENCE (3 + 0)
Political science internship with legislative, executive, and bureaucratic entities. Permission of instructor.

PS 401 **3 Credits**
PUBLIC OPINION AND POLITICAL BEHAVIOR (3 + 0)
The effect of public opinion on political behavior in America, with comparative materials from other countries.

PS 402 **3 Credits**
POLITICAL PARTIES AND GROUP POLITICS (3 + 0)
The theory and behavior of political parties and interest groups in the American political system. The role of parties in organizing elections and in the legislative and executive branches is discussed as well as general organized activity with both local and national examples.

PS 407 **3 Credits**
CAMPAIGNS AND ELECTIONS (3 + 0)
The American electoral process, voting, and opinion formation. The process and techniques of campaigning. Prerequisite: PS 101 or permission of instructor.

PS 411 **3 Credits**
HISTORY OF POLITICAL THEORY I: CLASSICAL (3 + 0)
Political philosophy from Plato to Marsilius, with emphasis on the question of justice.

PS 412 **3 Credits**
HISTORY OF POLITICAL THEORY II: MODERN (3 + 0)
Political philosophy from Machiavelli to Nietzsche, with emphasis on liberalism and its critics.

PS 415 **3 Credits**
CONTEMPORARY POLITICAL THEORY (3 + 0)
The political thought of the contemporary world examined through leading texts in political philosophy.

PS 432/BA 432 **3 Credits**
RESEARCH METHODS (3 + 0)
Methodology and techniques of empirical research: scientific methods, design of research, sampling, use of statistics, methods of data collection and analysis, including the use of computer data processing. Students will design and carry out a complete basic empirical study. The student is expected to spend three hours each week utilizing the SBPA computer laboratory. Prerequisite: BA 373 or equivalent.

PS 480/BA 480 **3 Credits**
ORGANIZATIONAL THEORY AND BEHAVIOR (3 + 0)
Literature of organizational theory; emphasis on theoretical concepts, organizational design, dynamics of formal and informal groups, communication in leadership, organizational development, organizational effectiveness, and social science research techniques. Prerequisites: Junior or Senior standing, BA 335 or permission of instructor.

Psychology

The baccalaureate program in psychology offers students psychological information, theoretical application, and skills for living more effectively, for gaining or advancing in employment, and ad-

mission to higher levels of education. A student may elect to obtain either a Bachelor of Arts or a Bachelor of Sciences degree.

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

BACHELOR OF ARTS

BACHELOR OF SCIENCE

1. Complete the General University Requirements, on pp. 67-74 and the College of Arts and Sciences Degree Requirements on pp. 77-81.
2. Complete the following courses:

   Psy 111—Introduction to Psychology
   Psy 245—Child Development
   Psy 261—Introduction to Experimental Psychology
   Psy 265—Psychology of Abnormal Behavior
   Psy 275—Social Psychology

3. Take one of the two laboratory classes:

   Psy 360—Learning and Behavior
   Psy 366—Perception

4. Take one of the two senior classes:

   Psy 412—Systems and Theories of Psychology
   Psy 495—Senior Seminar

5. Take an additional 18 credits of upper-division Psychology electives.
6. At least 48 upper-division credits are required to graduate.
7. A total of 120 credits is required for the degree

MINOR IN PSYCHOLOGY

1. Complete the following courses:

   Psy 111—Introduction to Psychology
   Psy 265—Psychology of Abnormal Behavior
   Psy 275—Social Psychology

2. Complete 9 additional upper-division Psychology credits.

Psychology, Counseling

MASTER OF SCIENCE

Deadline for Fall Admission is March 1.

The M.S. degree in Counseling Psychology requires a minimum of 36 credits. The program has three general objectives. Academic competence is addressed by advanced graduate courses in areas of psychology of special relevance to counseling, including counseling theory, behavior therapy, family therapy, and psychological assessment. The program directly encourages students to have a strong identification with professional psychology and its ethics. Clinical competencies are developed in an internship program at least two semesters in length. The degree requires a thesis. Graduates of the M.S. program work in a variety of human services settings.

ADMISSION TO THE GRADUATE PSYCHOLOGY PROGRAM

1. Deadline for Fall admission is March 1. Applications subsequent to the deadline of March 1 may be considered if space is available.
2. Compliance with General University Requirements and admission to graduate study.
3. "B" or above in the major discipline. A major in psychology is preferred.
4. Submission of scores on the Graduate Record Exam (GRE) for both the general aptitude test and the Psychology Subject Test. Successful applicants typically have GRE general aptitude scores on the quantitative and verbal subtests that sum to 1000 or more and scores on the Psychology Subject Test that exceed the 50th percentile.
5. Submission of a letter of intent describing the applicant's interest and purpose in studying psychology.
6. Supporting data (provided at candidate's option): personal and professional references, academic, research activities other than coursework, documented vocational or personal experience, special projects and/or activities, recognitions and honors.

Department approval for admission to graduate study is contingent upon the applicant's qualifications, interests, and available space. Graduate classes in psychology have certain prerequisites. The student should complete these prerequisites as early as possible.

General Requirements

A minimum of 36 credits must be taken including all required courses as listed, a minimum two semester internship sequence, a thesis, and a comprehensive written exam. Prior to advancement to candidacy, Psy 611 must be taken every Fall and Spring semester to maintain admitted status in the program. A minimum grade of "B" or better is required of all course work applied to the degree. Progress through the program takes place in two stages.

Stage 1: Admitted Status

During this time the student takes graduate classes, both core courses and electives. The following classes must be taken during this period because performance in them is the basis on which admission to the next stage is granted:

Psy 611—Professional Seminar (Prior to advancement to candidacy, Psy 611 must be taken every Fall and Spring semester to maintain admitted status in the program)
Psy 623—Counseling Skills
Psy 625—Family Therapy
Psy 633—Individual Assessment
Psy 639—Orientation to Thesis

Stage 2: Candidacy Status

Students advance to candidacy status upon the recommendation of a standing committee of clinical faculty. This group reviews candidacy recommendations by instructors in the stage 1 courses.

Students achieving Candidacy status are eligible to:

1. Enroll for internship/practicum course work—other prerequisites.
2. Form a Thesis Committee
3. Receive credit for Thesis (Psy 699)
4. Take comprehensive written exam.

Students who have passed the comprehensive examination and have an approved thesis proposal have achieved **advanced standing** and may receive favored consideration for advanced assistantships, teaching fellowships, specialized research, and/or clinical internship placements.

Specific Requirements

Psy 611—Professional Seminar (Prior to advancement to candidacy Psy 611 must be taken every Fall and Spring semester to maintain admitted status in the program. A maximum 4 credits of Psy 611 may be applied to the 36 credit degree minimum.
Psy 623—Counseling Skills (Prerequisite Psy 265, Psy 425)
Psy 625—Family Therapy (Prerequisite or Corequisite, Psy 623)
Psy 631—Advanced Behavior Therapy (Prerequisite Psy 445, Psy 623, Psy 625)
Psy 633—Individual Assessment (Prerequisite Psy 373, Psy 623)
Psy 637—Organizational Environments (Prerequisite Psy 275)
Psy 639—Orientation to Thesis (Prerequisite Psy 420)

Elective Courses

Psy 624—Group Counseling (Prerequisite or Corequisite Psy 623)
Psy 638—Child Clinical Psychology (Prerequisites Psy 150 or 245, Psy 420, Psy 265, or permission of instructor.)
Psy 641—Applications of Community Psychology (Prerequisite or Corequisite Psy 372 and Psy 623)
Psy 675—Selected Topics in Psychotherapy (Prerequisites Psy 623 and permission of instructor)
Psy 691—Advanced Psychological Assessment (Prerequisites Two courses in testing, including a graduate level individual assessment course.

Other Required Courses

Psy 670—Counseling Internship—6 credits (3 credits per semester, minimum of two semesters). Prerequisites: Candidacy and permission of instructor.
Psy 699—Thesis

Comprehensive Examination

A comprehensive written examination covering general knowledge of counseling psychology is offered in the second month of Fall and Spring semesters. Specific dates are announced at least three months in advance. Recommended reading lists and areas to be covered may be obtained from the department office.

Thesis

The student will complete a thesis under the direction of an advisory committee. Student must be admitted to Candidacy before enrolling in Thesis.

Courses in Psychology

PSY 111 **3 Credits**
INTRODUCTION TO PSYCHOLOGY (3 + 0)
An introduction to the entire area of Psychology through a presentation of major facts and theories. The

course is organized around traditional topics: physiological, perception, motivation, learning, cognition, developmental, personality, abnormal, treatment, and social. Distributed through the topical material are other themes such as scientific methodology, ethical considerations, practical applications and everyday life examples.

PSY 150 **3 Credits**
HUMAN DEVELOPMENT (3 + 0)
An introductory overview of the various aspects of development and changes which occur throughout a person's life span. Covers prenatal period, infancy, early and middle childhood, adolescence, early, middle and late adulthood.

PSY 153 **3 Credits**
HUMAN RELATIONS (3 + 0)
Application of psychological principles to the problems of everyday life. Course focus will be an emphasis on the analysis of developmental life style adjustment patterns. Mechanics of adjustment will be demonstrated by various practicum assignments. Prerequisite: Psy 111.

PSY 245 **3 Credits**
CHILD DEVELOPMENT (3 + 0)
A study of the physical, emotional, cognitive and social aspects of a child's development from the prenatal period to the beginning of adolescence. Theoretical view of development and the effects of genetics, the environment and socialization are included. Prerequisite: Psy 111.

PSY 261 **3 Credits**
INTRODUCTION TO EXPERIMENTAL PSYCHOLOGY (3 + 0)
Introduction to and laboratory application of the experimental methods to some problems of psychology using both human and animal subjects. Prerequisite: Psy 111.

PSY 265 **3 Credits**
PSYCHOLOGY OF ABNORMAL BEHAVIOR (3 + 0)
The continuum from normality, everyday types of upset; emotional crises and normal neurosis through abnormal neurosis and psychosis is identified in lecture and discussion. Prerequisite: Psy 111.

PSY 275/SOC 275 **3 Credits**
SOCIAL PSYCHOLOGY (3 + 0)
An analysis of inter-group relationships in terms of process and value orientation, their influences on the personality, and the various aspects of collective behavior on group and person. Prerequisites: Psy 111 and/or Soc 101.

PSY 328 **3 Credits**
COMPARATIVE PSYCHOLOGY (3 + 0)
A survey of animal behavior throughout the phylogenetic scale. Application of theories to human behavior will be included but not emphasized. Prerequisites: Psy 111 and one other psychology course.

PSY 333 **3 Credits**
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 360 **4 Credits**
LEARNING AND BEHAVIOR (3 + 3)
An examination of the basic principles of respondent and operant behavior. Material is drawn from both human and animal studies to illustrate positive and negative reinforcement, punishment, extinction, shaping, changing schedules of reinforcement and stimulus control. Weekly laboratory sessions involve progressive experiments with rats. Prerequisites: Psy 111 and one other psychology course.

PSY 366 **4 Credits**
PERCEPTION (3 + 3)
Current theories and phenomena on 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 368 **3 Credits**
PERSONALITY THEORIES (3 + 0)
A comprehensive survey of contemporary classical personality theories, research, individual assessment and personality development. Prerequisite: Psy 265.

PSY 370 **3 Credits**
PHYSIOLOGICAL PSYCHOLOGY (3 + 3)
An introduction to the structures and functions in the central nervous system and how these may explain behavior phenomena. Prerequisites: Psy 111 and one other psychology course.

PSY 372 **3 Credits**
COMMUNITY PSYCHOLOGY (3 + 0)
An examination of interaction theories and research applied to communications, dynamics of power, confrontation and conflict, and creative problem solving. Prerequisites: Psy 111 and one other psychology course.

PSY 373 **3 Credits**
PSYCHOLOGICAL TESTING (3 + 0)
Standardized psychological tests in various applied areas, administration, scoring and interpretation of established tests and study of ethical standards applied to development and administration of tests. Prerequisites: AS 300 and two psychology courses.

PSY 382 **3 Credits**
STRESS MANAGEMENT (3 + 0)
Examines the use of self-control and anxiety-reduction techniques in the management of stress. Topics include self control, goal setting, time management, assertive training and relaxation techniques. Prerequisites: Psy 265 or Psy 415 and one other psychology course or permission of instructor.

PSY 412 **3 Credits**
SYSTEMS AND THEORIES OF PSYCHOLOGY (3 + 0)
A survey of influential theories and concepts related to contemporary psychology. This course provides a general overview of psychological thought for the potential graduate student. Prerequisites: Psy 111 and three other psychology courses.

PSY 415 **3 Credits**
THEORIES OF LEARNING AND MOTIVATION (3 + 0)
Historical and contemporary theories of learning and motivation are discussed. Theories relevant to simple conditioning will be emphasized and current areas of experimental activity will be explored. Prerequisites: Psy 111 and three other psychology courses.

PSY 420 **3 Credits**
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, Psy 261, and two other psychology courses; one statistics course as a prerequisite or corequisite is required; or permission of the instructor.

PSY 425 **3 Credits**
TECHNIQUES OF PSYCHOTHERAPY (3 + 0)
A survey of current psychotherapeutic approaches, including basis assumptions, basic techniques, and related research findings. Films, demonstrations, and experimental involvement are included. Prerequisites: Psy 265 or Psy 368 and three other psychology courses.

PSY 427 **3 Credits**
FIELD EXPERIENCE IN PSYCHOLOGY (1 + 6)
Undergraduates working in supervised settings that provide psychological services. The course is intended to allow psychology majors to gain practical experience in the delivery of human services and to sample first hand the kinds of activities that professional psychologists perform. Prerequisites: Psy 111 and three other psychology courses.

PSY 445 **3 Credits**
BEHAVIOR MODIFICATION (3 + 0)
Survey of behavior modification techniques and application. Examines the use of behavior therapy techniques with preschoolers, children, adolescents, and adults. Prerequisites: Psy 360 and three other psychology courses.

PSY 452 **3 Credits**
CRISES INTERVENTION (3 + 0)
The theory of historical and contemporary approaches to crisis intervention will be explored. Specific emphasis will be on the identification of crises situations and their resolution. Prerequisites: Psy 265 and three other psychology courses.

PSY 454/SOC 454/JUST 454 **3 Credits**
EVALUATION RESEARCH AND CHANGE (3 + 0)
Application of evaluation research to the policy-making process presented are evaluative research strategies including monitoring, process evaluation, cost-benefit analysis and impact evaluation. Special attention is given to designing evaluation project, analyzing and interpreting results, preparing and presenting evaluation research reports in the justice, human and community service field. Prerequisite: Just 451 or a Research Methods course. Spring.

PSY 458 **3 Credits**
ADVANCED CHILD DEVELOPMENT (3 + 0)
Study of the development of the child as a product of the interaction between the developmental processes studied in Child Development (mental, emotional, social, and physical) and the child's life experiences. Prerequisites: Four psychology classes including Psy 245 or permission of instructor.

PSY 460 **3 Credits**
ISSUES IN HUMAN SEXUALITY (3 + 0)
An examination of sexual functioning and dysfunction. The course will overview human sexuality to provide a context in which specific forms of sexual dysfunction and abuse can be explored. The course will emphasize treatment and prevention of sexual problems. Prerequisites: Four psychology courses, including Psy 265.

PSY 465 **3 Credits**
CROSS CULTURAL COUNSELING: FOUNDATIONS AND APPROACHES (3 + 0)
Ethnic-cultural values, attitudes and beliefs are explored as they relate to counseling situations. The course examines how behavioral styles, manifestations of psychopathology and effective counseling methods are affected by ethnic-cultural factors. Prerequisites: Psy 111 and three other psychology courses, or permission of instructor. Psy 425 is recommended.

PSY 480/HS 480 **3 Credits**
PSYCHOLOGY OF ADDICTIONS (3 + 0)
The intent of this course is to provide a forum which will explore approaches to the understanding of alcohol and drug use, the problems which both can create, and methods of treatment prevention. Prerequisites: Two psychology courses.

PSY 481/HS 481 **3 Credits**
TREATMENT OF SUBSTANCE ABUSERS (3 + 0)
To strengthen knowledge of substance use and abuse and of substance counseling skills regarding the principles and practices of treatment. Techniques of instruction will include lectures, group discussions, resource persons and independent guided study. Prerequisite: Psy/HS 480.

PSY 490 **1 Credit**
DISTINGUISHED PRACTITIONERS SERIES (1 + 0)
Topics in clinical or applied psychology presented by practicing members of the professional community. Specific titles as announced. May be repeated for credit up to a limit of 6 credits. Prerequisites: 12 credits of psychology or permission of instructor.

PSY 495 **3 Credits**
SENIOR SEMINAR: CONTEMPORARY ISSUES IN PSYCHOLOGY (3 + 0)
Seminar for senior students with a major or minor in psychology to discuss issues in contemporary psychology. Prerequisites: Senior class standing, Psy 111 and three other psychology courses.

PSY 611 **1 Credit**
PROFESSIONAL SEMINAR (1 + 0)
A forum for discussion of issues of concern to professional psychologists and scientists in general and to UAA graduate students in particular, including ethics, program development, and new directions of faculty, plus a

selection of cross-disciplinary topics embracing other sciences, philosophy, and humanities. Content varies every semester. May be taken multiple times for credit. Prior to the advancement to candidacy, Psy 611 must be taken every Fall and Spring semester to maintain admitted status in the M.S. in Counseling Psychology program. A maximum of four (4) credits of Psy 611 may be applied to the 36-credit minimum for the M.S. degree. Prerequisites: Graduate standing or permission of instructor.

PSY 623/ED 623 **3 Credits**
COUNSELING SKILLS (3 + 0)

A basic counseling skills training course, including theory, philosophy, and experience. Emphasis is on the interactions which promote both emotional growth and positive behavior change. Permission of instructor is required for students not admitted to graduate standing in the Psychology Department. Prerequisites: Psy 265 and 425.

PSY 624/ED 624 **3 Credits**
GROUP COUNSELING (3 + 0)

The development of theoretical constructs and their application to complex group interactions; an awareness of self as change agent in the evolving unique society of the group. Prerequisite or corequisite: Psy 623 or permission of the instructor.

PSY 625 **3 Credits**
FAMILY THERAPY (3 + 0)

A combined theory and technique course, reviewing leading family therapy approaches and related research findings. Special attention will be given to assessment and therapy for parenting and marital difficulties. Prerequisite or corequisite: Psy 623.

PSY 627 **3 Credits**
AGENCY AND COMMUNITY FIELD EXPERIENCE (1 + 6)

Graduates working in supervised psychological agencies. This course will provide pre-practicum experiences with some direct services and extensive observation, to be integrated with relevant theoretical and empirical literature. Prerequisites: Admission to graduate studies, or permission of instructor.

PSY 631 **3 Credits**
ADVANCED BEHAVIOR THERAPY (3 + 0)

Advanced behavior therapy course, emphasizing the clinical application of behavior modification techniques, and familiarity with advanced professional literature. Prerequisites: Psy 445, Psy 623 and Psy 625.

PSY 633 **3 Credits**
INDIVIDUAL ASSESSMENT (3 + 0)

Administering, scoring and interpreting assessment tools (such as intelligence, personality, behavioral, educational and vocational measures) and writing psychological reports, such as interviews, case histories, and case conference techniques resulting in a meaningful individual evaluation. Prerequisites: Psy 373 and Psy 623.

PSY 637 **3 Credits**
ORGANIZATIONAL ENVIRONMENTS (3 + 3)

Fostering productive living environments within organizations by the use of effective supervision and climate management. Prerequisite: Psy/Soc 275.

PSY 638 **3 Credits**
CHILD-CLINICAL PSYCHOLOGY (3 + 0)

Treatment of childhood behavior problems affecting abnormal and normal children, particularly those problems most frequently encountered by practicing psychologists and pediatricians. The course examines the empirical basis for various forms of parent advice, parent training, and direct clinical intervention. Prerequisites: Three courses: Psy 150 or Psy 245 or equivalent; Psy 420 or equivalent; Psy 265 or equivalent; or permission of instructor.

PSY 639 **3 Credits**
ORIENTATION TO THESIS (3 + 0)

This course allows graduate students about to begin their thesis to discuss possible thesis topics, thesis design issues, and to prepare their thesis proposals. Prerequisites: Admission to graduate studies in Psychology, and Psy 420.

PSY 641 **3 Credits**
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 or corequisites: Psy 372 and Psy 623.

PSY 670 **1-6 Credits**
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. Prerequisites: Candidacy and permission of instructor.

PSY 675 **1-3 Credits**
SELECTED TOPICS IN PSYCHOTHERAPY (1-3 + 0)

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 counseling psychology. Prerequisites: Psy 623 and permission of instructor.

PSY 691 **1-3 Credits**
ADVANCED PSYCHOLOGICAL ASSESSMENT SERIES (1-3 + 0)

Topics and techniques in psychological assessment presented by faculty and practicing members of the professional community. Specific titles as announced. Prerequisites: Two courses in testing, including a graduate level individual assessment course.

PSY 699 **3 Credits**
THESIS

An acknowledgment of the work in progress toward completing a thesis. The Psychology staff is available to provide advice and assistance on specific problems en-

countered. Recommended courses: Engl 414 and Psy 639.

Social Work

BACHELOR OF SOCIAL WORK

Social work is a profession committed to assisting individuals, families, groups, organizations, communities, and society as a whole in the improvement of the quality of life.

Within an overall emphasis on client-centered problem solving, the Bachelor of Social Work degree program at the University of Alaska, Anchorage is guided by the following principles:

—Social work practice is based on selective use of knowledge in change efforts with human systems and social problems.
—Social work practice recognizes human diversity as a primary element.
—Social work practice is based on professional values.
—Social work practice is based on professional relationships.
—Social work practice is based upon reciprocal role performance.

Social work education engages the student in carefully planned experiences to achieve the knowledge, skill and attitudes necessary for beginning professional competence. These experiences take place in the classroom, small seminars and selected field work practicums.

The Bachelor of Social Work degree program is accredited by the Council on Social Work Education (CSWE).

Credits earned through CSWE accredited Social Work programs, offered by other institutions, can be transfered to UAA and applied toward the Bachelor of Social Work degree. Approval from the UAA Social Work Department is required for acceptance of Social Work transfer credits earned through Social Work programs which are not accredited by the CSWE.

1. Complete the General University Requirements on pp. 67-74.
2. Complete the College of Arts and Sciences Degree Requirements for the BSW degree on pp. 77-81.
3. Complete the following major requirements:

	Credits
Introduction to Social Work	3
SWK 206	
Social Work Methods and Practice	24
Four semesters, taken sequentially, six credits each:	
SWK 361 A and B	
SWK 362 A and B	
SWK 461 A and B	
SWK 462 A and B	
Social Welfare as a Social Institution	6
SWK 305 (Prerequisite Soc/SWK 106)	
SWK 306	
People and Their Environment	9
SWK 342 (Prerequisite Anth 200)	
SWK 343	
Soc 407/SWK 407 (Prerequisite Soc 101)	
Social Work Research	3
SWK 324	
Social Work Electives (upper-division)	6

4. General electives 20
5. At least 48 upper-division credits are required to graduate.
6. A total of 120 credits is required for the degree.

BACHELOR OF SOCIAL WORK ADMISSION REQUIREMENTS

1. Admission to the University of Alaska, Anchorage.
2. Completion of 45 semester credits with a cumulative GPA of 2.0.
3. Achievement of at least a grade of "C" in prerequisite social work courses.
4. Successful completion of SWK 361 A and B.
5. Submission of an admission application and a personal statement related to the student's interest in social work.
6. Participation in an interview with faculty for joint assessment of student's achievement of objectives of SWK 361 A and B and readiness to complete requirements of the program.

ADDITIONAL REQUIREMENTS

Students in the Social Work program must have a grade of "C" or better in each course required in the major. Adherence to the Code of Ethics established by the National Association of Social Workers is also required.

Courses in Social Work

SWK 106/SOC 106 **3 Credits**
INTRODUCTION TO SOCIAL WELFARE (3 + 0)
Functions and historical development of modern social welfare and the profession of social work. Designed primarily to assist in the understanding of social welfare problems and services. Prerequisites: SOC 101.

SWK 206 **3 Credits**
INTRODUCTION TO SOCIAL WORK (3 + 0)
An introduction to client centered social work practice and the contemporary profession of social work including knowledge and skill base for effective practice. Theory and practice in conducting a social work interview will be covered along with principles of problem identification, goal setting, and contracting services. Diverse influences such as cultural, gender, ethnicity will be identified. Prerequisite: SWK/Soc 106.

SWK 305 **3 Credits**
SOCIAL WELFARE: PROGRAMS AND SERVICES (3 + 0)
Social welfare as a basic institution in contemporary society. Analysis of the structure and function of current social welfare programs and the role of social work within those systems will be addressed. Prerequisite: SWK/Soc 106.

SWK 306 **3 Credits**
SOCIAL WELFARE: POLICIES AND ISSUES (3 + 0)
The 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 various methods of influencing policy development and change. Prerequisite: SWK 305 or permission of instructor.

SWK 324 **3 Credits**
SOCIAL WORK RESEARCH (3 + 0)
Definition of client-centered research questions, selection of theoretical frameworks, development of research designs, sampling, data collection, analysis and reporting. Students are expected to engage in a practice related research project and develop the skills necessary for utilization of existing research. Prerequisite: AS 300 or permission of instructor.

SWK 342 **3 Credits**
HUMAN BEHAVIOR IN THE SOCIAL ENVIRONMENT (3 + 0)
Identification and analysis of various theoretical frameworks for understanding human behavior with emphasis on interaction between the individual and his/her social environment. Developmental stages and tasks will be viewed in the context of social systems and societal institutions with focus on the diverse influences impacting human growth and change. Prerequisite: Anth 200 or permission of instructor.

SWK 343 **3 Credits**
HUMAN BEHAVIOR: DIVERSITY AND DISCRIMINATION (3 + 0)
Examination of human diversity in relation to ethnic, racial, cultural and other minority group affiliation and membership. Discrimination against various groups will be addressed with focus on individual and group development, opportunity, aspirations and self-concept. Prerequisite: SWK 342 or permission of instructor.

SWK 361-A **3 Credits**
SOCIAL WORK METHODS I (3 + 0)
Beginning social work with focus on client-centered problem solving, values and ethics, selected theory and knowledge base for professional social work practice, diversity of client systems and professional roles and relationships. Prerequisite: Permission of instructor. TAKE CONCURRENTLY WITH SWK 361-B.

SWK 361-B **3 Credits**
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. Permission of instructor.

SWK 362-A **3 Credits**
SOCIAL WORK METHODS II (3 + 0)
Expansion of knowledge and skill acquired in SWK 361-A with particular emphasis on client-centered problem solving with individuals, families and small groups. Selected practice theory applicable to social work with these system sizes is covered. Prerequisites: SWK 361-A or permission of instructor. TAKE CONCURRENTLY WITH SWK 362-B.

SWK 362-B **3 Credits**
SOCIAL WORK PRACTICE II (0 + 9)
Expansion of social work practice in which concepts, theories and knowledge acquired in SWK 362-A are applied to client-centered problem solving with individuals, families, and small groups. The student completes eight hours of field work each week in an approved agency under the supervision of a field instructor appointed by the University. A bi-monthly seminar is also required. Prerequisite: SWK 361-B or permission of instructor.

SWK 407/SOC 407 **3 Credits**
FORMAL ORGANIZATIONS (3 + 0)
Focus on modern organizations in terms of interrelationships between their purposes, structures, functions, the people who compose them, and the people they serve. Modern organizations are studied within the framework of their historical development, contemporary models and the needs and possibilities of the future. Particular attention is given to Social Welfare organizations. Prerequisite: Soc 101.

SWK 409 **3 Credits**
INTRODUCTION TO CHILD WELFARE (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.

SWK 410 **3 Credits**
CHILD PLACEMENT: PREVENTION AND PRACTICE (3 + 0)
After a brief historical perspective of child welfare services, this course considers the services which prevent placement, reviews legal, social and diagnostic considerations involved in placement decisions, and teaches skills in handling separation feelings of parents and children. Placement resources will be discussed, with emphasis on permanency planning and matching children

and parental needs with programs and services. Prerequisite: SWK 409 or permission of instructor.

SWK 443 **3 Credits**
MENTAL HEALTH PRACTICE, PROGRAMS AND SERVICES (3 + 0)

Study of mental health problems presented by people and the response of service delivery systems. A broad overview of current mental health programs and service delivery systems is presented including their development through history. The political and economic issues of mental health policy making will be addressed as will differential intervention strategies and the needs of specific target groups.

SWK 444 **3 Credits**
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 interrelationship of mind and body on behavior, growth, achievement, and change.

SWK 461-A **3 Credits**
SOCIAL WORK METHODS III (3 + 0)

Advanced social work methods with emphasis on client-centered problem solving in professional practice with organizations, communities and consumer groups. Selected theory applicable to professional practice with these client systems is covered. Prerequisite: SWK 362-A or permission of instructor. TAKE CONCURRENTLY WITH SWK 461-B.

SWK 461-B **3 Credits**
SOCIAL WORK PRACTICE III (0 + 9)

Advanced social work practice in which concepts, theory and knowledge acquired in SWK 461-B are applied to client-centered problem solving with organizations, communities and consumer groups. The student completes eight hours of field work each week in an approved agency under the supervision of a field instructor appointed by the University. A bi-monthly seminar is also required. Prerequisite: SWK 362-B or permission of instructor.

SWK 462-A **3 Credits**
SOCIAL WORK METHODS IV (3 + 0)

Expansion, selection and integration of knowledge and skills for use with varying client system sizes. Emphasis is placed on responding to the intricacies of the change process. Additional practice theory from social work and related disciplines is studied in preparation for generalist social work practice. Prerequisite: SWK 461 or permission of instructor. TAKE CONCURRENTLY WITH SWK 462-B.

SWK 462-B **3 Credits**
SOCIAL WORK PRACTICE IV (0 + 9)

Differential use of social work values, knowledge and skills in client-centered problem generalist social work practice. The student completes eight hours of field work each week in an approved agency under the supervision of a field instructor appointed by the University. A bi-monthly seminar is also required. Prerequisite: SWK 461 or permission of instructor.

SWK 470 **3 Credits**
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 the instructor.

SWK 490 **1 Credit**
SELECTED TOPICS IN SOCIAL WORK (1 + 0)

Focus on current topics related to social work services, diverse client groups and fields of practice. Prerequisite: None.

Sociology

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

BACHELOR OF ARTS
BACHELOR OF SCIENCE

1. Complete the General University Requirements, on pp. 67-74 and the College of Arts and Sciences Degree Requirements on pp. 77-81.
2. Complete the five required courses in the major (15 credits).
3. Complete one statistics course (Soc 251, AS 300 or equivalent).
4. Complete courses for one specialty core area.
5. At least 48 upper-division credits are required to graduate.
6. A total of 120 credits is required for the degree.

Required Courses (15 Credits)

	Credits
Soc 101—Introduction to Sociology	3
Soc 201—Social Problems and Solutions	3
Soc 352—Social Research Methods	3
Soc 402—Theories of Sociology	3
Soc 491—Senior Sociology Seminar: Plans for Action	3

A. Family and Lifecycles: for majors specializing in small group and family systems.

a. **General Background Courses:** Select 2 (6 credits):
Soc 275—Social Psychology 3
Soc 363—Social Stratification 3
Soc 405—Social Change 3

b. **Core Area Courses:** Select 2 (6 credits):
Soc 245—Child Development 3
Soc 310—Sociology of Aging 3
Soc 342—Sexual, Marital, and Family Lifestyles 3
Soc 377—Men, Women and Change 3

c. **Academic Emphasis:** Select 2 additional courses (6 credits) from the Core Area (b) above.

d. **Applied Emphasis:** Select 2 (6 credits);
Soc 106—Introduction to Social Welfare . . 3
Soc 425—Techniques of Psychotherapy . 3
Soc 454—Evaluation Research and Change 3
Soc 487/Soc 488—Sociology Practicum 3-6

B. Community and Change: for majors specializing in rural community and urban systems.

a. **General Background Courses:** Select 2 (6 credits):
Soc 307—Introduction to Human Populations 3
Soc 343—Sociology of Deviant Behavior . 3
Soc 363—Social Stratification 3
Soc 404—Environmental Sociology 3
Soc 405—Social Change 3

b. **Core Area Courses:** Select 2 (6 credits):
Soc 222—Small and Rural Communities . 3
Soc 309—Urban Sociology 3
Soc 373—Strategies of Community Change 3
Soc 407—Formal Organizations 3

c. **Academic Emphasis:** Select 2 additional courses (6 credits) from the Core Area (b) above or substitutions with consent of advisor.

d. **Applied Emphasis:** Select 2 (6 credits):
Soc 454—Evaluation Research and Change 3
Soc 487/488—Sociology Practicum . . . 3-6

C. General Sociology: for majors wishing a general sociology degree with a Liberal Arts orientation and/or potential of double major.

a. **General Sociology Courses:** Select 3 (9 credits):
Soc 275—Social Psychology 3
Soc 363—Social Stratification 3
Soc 343—Sociology of Deviant Behavior . 3
Soc 405—Social Change 3
Soc 407—Formal Organizations 3

b. **Core Area Courses:** Select 3 additional courses (9 credits) from Philosophy, Political Science, Economics, Psychology, Sociology, or related disciplines with consent of advisor.

MINOR IN SOCIOLOGY

Complete Soc 101, 275, 352, 402, and an additional 9 credits of sociology electives, 3 of which must be upper-division.

Courses in Sociology

SOC 101 **3 Credits**
INTRODUCTION TO SOCIOLOGY (3 + 0)
An introduction to the science of humans as social animals, emphasizing the social processes which give rise to and shape human's language, experiences, perception, meaning, and behavior. Multiple frameworks are used in understanding and predicting human behavior.

SOC 106/SWK 106 **3 Credits**
INTRODUCTION TO SOCIAL WELFARE (3 + 0)
Functions and historical development of modern social welfare and the profession of social work. Designed primarily to assist in the understanding of social welfare problems. Prerequisite: Soc 101.

SOC 201 **3 Credits**
SOCIAL PROBLEMS AND SOLUTIONS (3 + 0)
Survey of some of today's major social problems such as criminal and violent behavior, corporate crime, sexual deviations, health problems, poverty, discrimination, urban decay, and environmental pollution. The course examines how social issues become social problems, the causes of problems, and the dynamics involved in arriving at policies and solutions.

SOC 203/JUST 203 **3 Credits**
JUVENILE DELINQUENCY (3 + 0)
A conceptual approach to deviant and delinquent behavior, contributing social problems, adolescence as a subculture with emphasis on the juvenile code and treatment procedure. Prerequisites: Soc 101 or permission of instructor.

SOC 221/PS 221 **3 Credits**
INTRODUCTION TO POLITICAL SOCIOLOGY (3 + 0)
An introduction to the social nature of politics and to the nature and distribution of power in society. An examination of how social institutions are engaged in the political processes of different societies and of the complex relationships existing between social and political change.

SOC 222 **3 Credits**
SMALL AND RURAL COMMUNITIES (3 + 0)
An overview of the 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.

Students will be expected to perform library and limited field research in small communities of Alaska. Prerequisite: Soc 101.

SOC 251 **3 Credits**
INTRODUCTORY STATISTICS FOR BEHAVIORAL SCIENCES (3 + 0)
Introduction to the basic concepts, purposes, and procedures of statistics. Areas of study include: data reduction; descriptive measures for group data; inferential measures for single groups and between group means; probability; measures of association; and correlation and regression analysis.

SOC 275/PSY 275 **3 Credits**
SOCIAL PSYCHOLOGY (3 + 0)
An analysis of inter-group relationships in terms of process and value orientation, their influences on the personality, and the various aspects of collective behavior on group and person. Prerequisites: Psy 111 and/or Soc 101.

SOC 307 **3 Credits**
INTRODUCTION TO HUMAN POPULATIONS (3 + 0)
The demographic structure of population and its implications. Prerequisite: Soc 101.

SOC 309 **3 Credits**
URBAN SOCIOLOGY (3 + 0)
Growth and development of urban communities with reference to migration patterns, differentiation of functions, ecological patterns of land use, social control, and secondary group associations of metropolitan magnitude. Prerequisite: Soc 101.

SOC 310 **3 Credits**
SOCIOLOGY OF AGING (3 + 0)
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. Prerequisite: Soc 101.

SOC 342 **3 Credits**
SEXUAL, MARITAL, AND FAMILY LIFESTYLES (3 + 0)
Survey of why and how people meet, interact, love, fight, change, sustain or dissolve relationships, have children, and age together. Emphasizes theories and research that explain today's marital, family, and sexual lifestyles, as well as class and cultural variations found in the United States. Prerequisite: Soc 101 or permission of instructor.

SOC 343 **3 Credits**
SOCIOLOGY OF DEVIANT BEHAVIOR (3 + 0)
A study of the social etiology of deviant behavior, both criminal and noncriminal with an emphasis on the nature of group interaction, and an examination of the institutions involved. Prerequisite: Soc 101.

SOC 347 **3 Credits**
SOCIOLOGY OF RELIGION (3 + 0)
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. Prerequisite: Soc 101.

SOC 352/PS 352 **3 Credits**
SOCIAL RESEARCH METHODS (3 + 0)
Introductory research methods, including definition of research problems, development of hypotheses, experimental and non-experimental research design, sampling, data collection and analysis. Students are expected to participate in various field exercises and to develop critical capacities for evaluating research studies. Prerequisite: PS 102 or Soc 101.

SOC 363 **3 Credits**
SOCIAL STRATIFICATION (3 + 0)
The study of the differential distribution of social power, privilege and life chances in class and caste as the basis for social organization. Emphasis on occupational, educational, and other correlates which determine social structure. Prerequisite: Soc 101.

SOC 373 **3 Credits**
STRATEGIES OF COMMUNITY CHANGE (3 + 0)
Practical methods for planning, organizing and implementing community development programs in urban and rural settings. Course covers both planned programs of community change and general community organizing. Students will be expected to develop a project for community action. Prerequisite: Soc 222 or Soc 309 or permission of instructor.

SOC 377 **3 Credits**
MEN, WOMEN AND CHANGE (3 + 0)
Examination of how gender in our society affects from birth individuals' roles, socialization, achievements, opportunities, and overall personality and self development. The course studies changes that have taken place over the past several decades. Relevant theories and research form the foundation of the course. Prerequisite: Soc 101 or Soc/Psy 275.

SOC 402 **3 Credits**
THEORIES OF SOCIOLOGY (3 + 0)
Major sociological theories and theorists of Western Civilization; review of important contributions and approaches of various "national schools" with emphasis on current American and European trends. Prerequisite: Soc/Psy 275.

SOC 404 **3 Credits**
ENVIRONMENTAL SOCIOLOGY (3 + 0)
A critical analysis of the interaction 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 man's relation to and use of the natural environment.

SOC 405 **3 Credits**
SOCIAL CHANGE (3 + 0)
Social change in long-time perspective, with emphasis on social movements and the influence of technology. Prerequisite: Soc 101.

SOC 407/SWK 407 **3 Credits**
FORMAL ORGANIZATIONS (3 + 0)
Focus on modern organizations in terms of the interrelationships between their purposes, structures, func-

tions, the people who compose them and the people they serve. Modern organizations are studied within the framework of their historical development, contemporary models and the needs and possibilities of the future. Particular attention is given to Social Welfare organizations. Prerequisite: Soc 101.

SOC 408 **3 Credits**
AMERICAN MINORITY GROUPS (3 + 0)

Present status of ethnic, religious and national minorities and their changing sociological, economic, and political status.

SOC 454/PSY454/JUST 454 **3 Credits**
EVALUATION RESEARCH AND CHANGE (3 + 0)

Application of evaluation research to the policy making process. Presented are evaluative research strategies including monitoring, process evaluation, cost-benefit analysis, and impact evaluation. Special attention is given to designing evaluation projects, analyzing and interpreting results, preparing and presenting evaluation research reports in the justice, human and community service fields. Prerequisite: Just 451 or a Research Methods course. Spring.

SOC 487 **3 Credits**
SOCIOLOGY PRACTICUM

Course in which student participates in a significant field research project and/or community action/agency program that applies sociological skills and analysis toward the resolution of specific social problems. Students attend a seminar, class or individual meeting with a faculty member on a weekly basis, and completes a minimum of six hours each week in the field on an approved research or community project which does not have to be localized in the Anchorage area. All students will be expected to participate in the design and program formulation of the project and a final term or progress paper will be required. Prerequisites: Junior or Senior standing and prior permission of instructor.

SOC 488 **3 Credits**
SOCIOLOGY PRACTICUM

Continuation of Soc 487 in which the student will be expected to complete a formal report on the field research or community action/agency project in which he/she is engaged. Students will continue to attend a weekly seminar while working under the guidance of a single faculty member and potential field supervisor. A minimum of six hours each week in the field is required of the student throughout the semester. Prerequisites: Junior or Senior standing and prior permission of instructor.

SOC 491 **3 Credits**
SENIOR SOCIOLOGY SEMINAR: PLANS FOR ACTION (3 + 0)

Weekly seminar for senior level sociology students to discuss major issues, applications and career alternatives in contemporary sociology. Focus of course is familiarization with roles held in Alaska by professionals with sociological training. Offered Spring semester only. Prerequisite: Senior standing or permission of instructor.

Spanish

SPAN 101 **5 Credits**
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 the lab exercises.

SPAN 102 **5 Credits**
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 the instructor.

SPAN 201 **3 Credits**
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 conversational fluency will be enhanced through the study of thematic vocabularies and idiomatic expressions. Prerequisite: Span 102 or permission of the instructor.

SPAN 202 **3 Credits**
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 the instructor.

SPAN 340 **3 Credits**
STUDIES IN SPANISH LITERATURE I (3 + 0)

Survey of Spanish literature from medieval times to 1700. Focus is on the literary spirit which flourished in the genres of the epic, lyric, drama, novel and short story while reaching for a panoramic view of the culture. Representative anonymous works and authors such as *Poem of Mio Cid, Book of Good Love*, Lope de Vega, Miguel de Cervantes will be read and studied. Prerequisite: 3 years of university Spanish or permission of instructor. Offered every other year.

SPAN 341 **3 Credits**
STUDIES IN SPANISH LITERATURE II (3 + 0)

Survey of modern and contemporary Spanish literature from the 1700's to the mid 1950's. Comprehensive view of Spanish thought as reflected in its major writers, including significant works of the neo-classic, romantic, realist, naturalist, and modernistic periods. Special attention is given to the social and cultural background. Prerequisite: 3 years of university Spanish or permission of instructor. Offered every other year.

SPAN 370 **3 Credits**
STUDIES IN LATIN-AMERICAN LITERATURE I (3 + 0)

Survey of the major Latin American authors from the time of Columbus to the modernists (1880's). The chronicles of the discovery, the colonial literature and the main writings of the independent period are examined

through selections of prose and poetry. Stress is on the social, economic and political structures as reflected by various authors from Mexico to Argentina. Prerequisites: 3 years of university Spanish or permission of instructor. Offered ever other year.

SPAN 371 **3 Credits**
STUDIES IN LATIN-AMERICAN LITERATURE II (3 + 0)

Survey of the main Latin American literary trends from the modernistic period of the 1880's to the contemporary novel of the 1970's. The various genres of poetry, drama, essay and novel as shown by the most representative writers throughout Latin America will be studied. The concentration is on literature as the artistic expression of the character and human values of the Hispanic world. Prerequisites: 3 years of university Spanish or permission of instructor. Offered every other year.

Speech

SPCH 111 **3 Credits**
FUNDAMENTALS OF ORAL COMMUNICATION (3 + 0)

An introduction to human communication through the study of rhetoric and its application in public speaking. Essentials of persuasion, audience analysis, argumentation, organization, style and delivery are emphasized. The extemporaneous mode is stressed.

SPCH 241 **3 Credits**
PUBLIC SPEAKING I

Theory and practice of exposition and persuasion and platform speaking situations. Training in the selection, organization and effective presentation of material to large audiences in a variety of situations.

SPCH 343 **3 Credits**
BUSINESS AND PROFESSIONAL SPEAKING (3 + 0)

The theory and practice of oral persuasion as applied to the business world. Practice in leadership, conducting of effective meetings, interviews, and discussions. Improving public speaking in business and professional contexts. Prerequisite: Spch 111

SPCH 346 **3 Credits**
ORAL INTERPRETATION (3 + 0)

Theory and practice of the art of oral interpretation to stimulate an understanding and responsiveness to prose, poetry and drama, and to develop the ability to convey to others, through oral reading, an appreciation of literature. Prerequisite: Spch 111.

Theatre

BACHELOR OF ARTS

1. Complete the General University Requirements, on pp. 67-74 and the College of Arts and Sciences Degree Requirements on pp. 77-81.

2. Complete the major requirements as follows:

	Credits
Thr 111—Introduction to Theatre	3
Thr 121—Acting I	3
Thr 141—Stagecraft I	3
Thr 221—Acting II	3
Thr 243—Scene and Lighting Design	3
Thr 257—Costume Design and Construction	3
Thr 311/312—Representative Plays I or II	3
Thr 331—Directing I	3
Thr 411—History of Theatre I	3
Thr 412—History of Theatre II	3

3. Choose one of the following:

Thr 321—Acting III	3
Thr 343—Scene Design	3
Thr 357—Costume Design and Construction II	3
Thr 435—Directing II	3

4. Theatre electives 7

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

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

MINOR IN THEATRE

Complete Thr 111, 121, 141, 311 or 312, 411 or 412, and an additional 3 credits of Theatre electives.

Courses in Theatre

THR 101 **1-3 Credits**
THEATRE PRACTICUM (0 + 6)

Participation in drama workshop or theatre productions as performer or technical staff member.

THR 111 **3 Credits**
INTRODUCTION TO THEATRE (3 + 0)

A survey of the theatre, with a focus on the artists who contribute to theatrical production viewed within the context of historical styles and development.

THR 121 **3 Credits**
ACTING I (3 + 0)

Instruction in this course consists of work in three closely related areas: movement, voice production/speech and basic acting techniques. The study of movement begins with exploratory exercises; the study of speech covers voice building and breath control, and how these techniques apply to basic acting.

THR 123 **1 Credit**
BEGINNING MODERN JAZZ TECHNIQUE (0 + 3)

Basic techniques of line, placement, relationship to space, and basic jazz dance vocabulary.

THR 124 **2 Credits**
DANCE FOR THE MUSICAL THEATRE (2 + 0)

Basic stage dance/performance techniques. Style of dance from early 1900's to the present will be covered.

THR 141 **3 Credits**
STAGECRAFT I (2 + 2)
The beginning course in technical theatre. Elements of theatrical production and scenic construction will be covered.

THR 151 **2 Credits**
MAKE-UP FOR THE THEATRE (1 + 2)
Theatrical make-up for actors, teachers, directors and other theatre workers; make-up materials and use; straight and character make-up; illusory and plastic relief; national types; influence of lighting.

THR 201 **1-3 Credits**
THEATRE PRACTICUM (0 + 6)
Sophomore course in Practicum. Participation in drama workshop or theatre productions as performer or technical staff member.

THR 221 **3 Credits**
ACTING II (3 + 0)
Intermediate study of acting with emphasis on expression through physicalization. Work includes analysis and developmental physical skills. Prerequisite: Thr 121.

THR 243 **3 Credits**
SCENE DESIGN (3 + 0)
Fundamental principles of design for the stage, including drafting, rendering, theory, analysis, and practice.

THR 257 **3 Credits**
COSTUME DESIGN AND CONSTRUCTION I (1 + 4)
Basic principles of fabric selection and construction techniques for stage costumes. Fundamentals of costume design with emphasis on beginning technique and theory of design.

THR 301 **1-3 Credits**
THEATRE PRACTICUM (0 + 6)
Junior course in Practicum. Participation in drama workshop or theatre productions as performer or technical staff member.

THR 311 **3 Credits**
REPRESENTATIVE PLAYS I (3 + 0)
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. Prerequisites: Engl 111 and Junior standing. (BA-H)

THR 312 **3 Credits**
REPRESENTATIVE PLAYS II (3 + 0)
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. Prerequisites: Engl 111 and Junior standing. (BA-H)

THR 315 **3 Credits**
DRAMATURGY (3 + 0)
Study and practice of script analysis and development for the stage. Class will involve staged readings.

THR 321 **3 Credits**
ACTING III (3 + 0)
Intermediate techniques in characterization, script analysis, and their application to scene study. Prerequisite: Thr 221.

THR 325 **3 Credits**
THEATRE SPEECH (2 + 2)
Vocal techniques for actors. Standard stage diction and foreign dialects.

THR 331 **3 Credits**
DIRECTING I (1 + 4)
Direction of short plays for drama lab productions. Prerequisite: Thr 221.

THR 341 **3 Credits**
STAGECRAFT II (2 + 2)
Advanced problems and techniques of technical theatre production. Course is keyed to recent developments in the technical production areas. Prerequisite: Thr 141 or permission of instructor.

THR 343 **3 Credits**
SCENIC DESIGN II (3 + 0)
A continuation and expansion of Thr 243 reflecting most recent trends in theatre practice. This is an advanced course teaching more complex techniques. Design theory and script analysis will be emphasized and a heavy concentration of various rendering and modeling methods will be taught. Prerequisite: Thr 243.

THR 347 **3 Credits**
LIGHTING DESIGN (3 + 0)
A course in theory and practice of design and execution of lighting and associated electrical effects for the stage. Primary focus will be on theatrical lighting with additional material on related fields. Prerequisite: Thr 243.

THR 357 **3 Credits**
COSTUME DESIGN AND CONSTRUCTION II (1 + 4)
Advanced work in costume design and construction. This course is a continuation of Thr 257. Prerequisite: Thr 257.

THR 401 **1-3 Credits**
THEATRE PRACTICUM (0 + 6)
Senior course in Practicum. Participation in drama workshop or theatre productions as performer or technical staff member.

THR 411 **3 Credits**
HISTORY OF THE THEATRE I (3 + 0)
Study of theatre history from Greek to 1800 period. The history and the influence of different cultures, traditions and technologies on the development of the theatre as a social institution. Prerequisites: Junior or Senior standing and completion of written communication General College Requirements. (BA-H)

THR 412 **3 Credits**
HISTORY OF THE THEATRE II (3 + 0)
Continuation of Thr 411. Theatre history from 1800 to modern. Prerequisites: Junior or Senior standing and completion of written communication General College Requirements. (BA-H)

THR 413 **3 Credits**
DRAMATIC THEORY AND CRITICISM (3 + 0)
Study of theories and criticism of drama and theatrical art from Aristotle to the present. (BA-H)

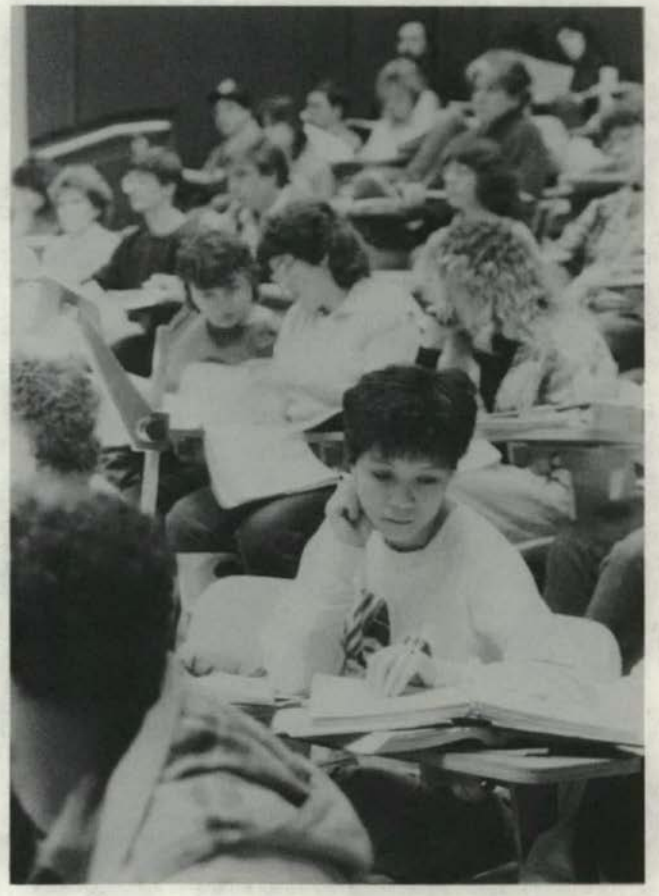
THR 435 **3 Credits**
DIRECTING II (0 + 6)
Advanced directional analysis of a major dramatic work and public presentation of a play. Prerequisite: Thr 331.

THR 445 **3 Credits**
ADVANCED THEATRE PRODUCTION (0 + 6)
Advanced technical theatre course with emphasis as selected by student in scenery design, lighting, stagecraft, costume, or directing. Prerequisite: Junior level course in area of specialization.

THR 480 **5-15 Credits**
THEATRE INTERNSHIP (0 + 24-40)
Advanced theatre production course with emphasis as selected by student in direction, acting, scenery and lighting, costume design and construction, or theatre management. Limitation: The total of internship activity that may apply toward graduation is 15 credits. Prerequisite: Junior standing or permission of department chairman.

THR 490 **3 Credits**
SELECTED TOPICS IN PERFORMANCE (3 + 0)
Current topics in theatrical performance resulting from special demands of the theatre season or special faculty expertise.

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



SCHOOL OF JUSTICE

Faculty

Dean: John E. Angell, Professor; Director, Justice Center
Professor: Stephen Conn
Associate Professor: Roger V. Endell
Assistant Professors: Allan R. Barnes, Kenneth Michael Reese, Nancy E. Schafer

The School of Justice has statewide responsibility for higher education and research related to the areas of crime, law, and the administration of justice. The School offers a Justice baccalaureate degree program for students whose plans include a career or substantial policy interest in police, law, or corrections areas.

The Bachelor of Arts degree in Justice satisfies the educational prerequisites for a variety of administrative, operational, research, and planning positions related to crime and the administration of justice. Those graduates with records of high achievement in the Justice undergraduate program will be prepared to pursue advanced education in graduate and professional degree programs at other universities.

The School of Justice faculty have unique professional research and service obligations beyond classroom teaching. Such activities are performed through the **Justice Center**, the School's research arm. The Center is an organized research unit which has the authority to—at its own initiative or in response to requests from outside the University—conduct research and action programs. Efforts are made to ensure that all undergraduate students who major in Justice have opportunities to work with faculty members on Justice Center research and service projects.

Graduates who receive a Bachelor of Arts degree in Justice have both broad educational preparation for productive citizenship, and the specialized knowledge and skills required for the evaluation, administration and improvement of police, court and correctional policies and organizations.

High School Preparation

The following high school courses are recommended in preparation for admission to the School of Justice:

- a minimum of 3 years English
- math to intermediate algebra level
- history
- computer-related courses
- social science courses

Bachelor of Arts—Justice

To earn a Bachelor of Arts degree with a major in Justice, students must satisfy the General University Requirements and the General Education Degree Requirements shown below. Students wishing to major in Justice must be accepted by the School of Justice. A Justice major may elect to obtain an emphasis in police studies, legal studies, or corrections, or in general justice.

Students majoring in other areas may enroll in Justice courses to satisfy General Education Degree requirements or elective course requirements. A student should examine the following specific requirements and consult with a faculty advisor before enrolling in Justice courses.

	Credits
Oral Communication Skills	3
Spch 111, 241	
Written Communication Skills	6
Engl 111, 211, 213, 311	
Reasoning Skills	3
BA 110	
CS 105, 106, 107, 108	
ES 201	
Ling 110	
Phil 101	
Quantitative Skills	6
AS 300, 307 (AS 300 required)	
Math 106, 107, 108, 200, 201, 202, 270, 272	
Natural Science Area	7
(including 1 lab. course)	
Astr 103, 104	
Biol 107, 108, 111, 112, 113, 114, 215, 239, 252, 271	
Chem 105, 106, 120, 121	
Geol 111, 112	
Phys 103, 104, 211, 212	
Social Science Area	6
(2 disciplines outside major)	
Anth 101, 200, 202, 250	
Econ 201, 202	
JPC 101	
Ling 101	
PS 101, 102, 311, 312	
Psy 111, 150	
Soc 101, 106, 201, 202, 222, 242	
SWK 106	

Arts Area 3
Art 160, 261, 262, 367
JPC 367
Mus 122, 221, 222
Thr 111, 311, 312, 411, 412

Humanities Area 12
(at least two disciplines outside the major)
Engl 121, 201, 202, 306, 307
Fren 101, 102
Hist 101, 102, 131, 132, 341
JPC 215
Phil 201, 211, 212, 301
Span 101, 102

Note: The courses listed in the Arts Area, except Art 160, Mus 122, and Thr 111, may be taken to fulfill the Humanities Area requirement; however, no course may be double-counted. With advisor approval other humanities courses may be substituted for up to six credits of this requirement.

Justice Major (required courses) 22
Just 110—Introduction to Justice 3
Just 221—Justice Organization and Management 3
Just 250—Development of Law 3
Just 251—Criminology 3
Just 330—Justice and Society 3
Just 360—Justice Processes 3
Just 451—Research and Policymaking . . 4

Justice Emphasis Electives 20

Students may choose to take a broad range of Justice courses for a general Justice emphasis or they may, with the help of their advisor, select a curriculum which provides an emphasis area in corrections, legal studies, or police studies. At least 15 of the Justice emphasis electives must be from upper-division Justice courses.

Minor Required 15-21

Students must satisfy requirements for a minor in a complementary discipline. Specific requirements for minors are listed in the catalog by school or department.

1. At least 48 upper-division credits are required to graduate.
2. A total of 120 credits is required for the degree.

JUSTICE MINOR

A student who is majoring in another field may earn a minor in Justice by satisfying the following requirements:

Just 110—Introduction to Justice 3
Just 251—Criminology 3

Complete a minimum of 12 additional Justice credits of which 9 are to be 300 and 400 level.

Course Descriptions

JUST 110 **3 Credits**
INTRODUCTION TO JUSTICE (3 + 0)
Survey of philosophies, functions and methods of social control with emphasis on role of law and those involved in its administration—police, courts, corrections organization. Includes study of history, organization, processes, and problems related to law and justice agencies in a heterogeneous, democratic society. This course is a prerequisite to most Justice courses. Fall, Spring.

JUST 203/SOC 203 **3 Credits**
JUVENILE DELINQUENCY (3 + 0)
A conceptual approach to deviant and delinquent behavior, contributing social problems, adolescence as a sub-culture with emphasis on the juvenile code and treatment procedure. Prerequisite: Soc 101 or permission of instructor.

JUST 210 **3 Credits**
PRINCIPLES OF CORRECTIONS (3 + 0)
An introduction to the basic concepts of probation and parole; the use of authority in corrective services; institutional methods, a study of popular and professional concepts in corrections. Prerequisites: Just 110, Just 251.

JUST 215 **3 Credits**
PARALEGAL STUDIES (3 + 0)
A foundation course for the legal studies area. Explores role, 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. Fall.

JUST 221 **3 Credits**
JUSTICE ORGANIZATION AND MANAGEMENT (3 + 0)
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; principles of change. Prerequisite: Just 110. Spring.

JUST 233 **3 Credits**
MINORITIES AND JUSTICE CAREERS (2 + 4)
An explication of the justice system designed particularly for minority students, especially Alaska Natives, and for others seeking a practically-oriented introductory perspective to the justice field. This course places emphasis on the functions of professionals within the justice system. It includes an introduction to law and a legal writing and research skills development seminar. The course requires participation in a practicum. Summer.

JUST 250 **3 Credits**
DEVELOPMENT OF LAW (3 + 0)
Study of underlying philosophy, development and structure of law with emphasis on the law system of the United States and Alaska. Includes "civil" precedents of such constitutional provisions as "due process" and "equal protection" in the United States Bill of Rights;

criticisms of law; review of Native law ways; procedures for changing law. Prerequisite: Just 110. Spring.

JUST 251 **3 Credits**
CRIMINOLOGY (3 + 0)
The study of deviant behavior and theories of crime causation and their relationship to society, law and law enforcement. Prerequisite: Just 110. Fall, Spring.

JUST 320 **3 Credits**
CRIME PREVENTION (3 + 0)
An examination of crime prevention strategies and concepts not usually found in law enforcement efforts. The legal, moral and ethical considerations and problems of human and environmental manipulation are explored in an interdisciplinary context. The emphasis is on new and innovative approaches to preventing criminal behavior.

JUST 330 **3 Credits**
JUSTICE & SOCIETY (3 + 0)
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. Prerequisite: Just 110 or permission of instructor. Fall.

JUST 331/BA 331 **3 Credits**
BUSINESS LAW I (3 + 0)
A survey of basic institutions, litigation, judicial process, dispute resolution and preventive law; substantive law of torts, agency, contracts and the Uniform Commercial Code including sales, negotiable instruments, and secured transactions.

JUST 332/BA 332 **3 Credits**
BUSINESS LAW II (3 + 0)
The law of business organizations, business crimes, employment, landlord-tenant, and real property.

JUST 350 **3 Credits**
CONTEMPORARY CORRECTIONAL ISSUES (3 + 0)
A survey course designed to acquaint the student with policy formation problems related to both traditional and modern concepts of correctional programming. The roles of the executive, legislative, and judicial branches of government in determining correctional policy as well as the roles of the community, the media and special interest groups are examined. Rehabilitative program alternatives are explored in relationship to the need for protecting the public and deterring crime. Prerequisite: Just 110.

JUST 352 **3 Credits**
CRIMINAL LAW (3 + 0)
A study of the elements, purposes, and functions of the substantive criminal law with emphasis on historical and philosophical concepts. Prerequisites: Just 110, Just 250.

JUST 354 **3 Credits**
CRIMINAL PROCEDURE (3 + 0)
Criminal law with emphasis on the legal limitations of the police and the right of the people to be secure from the government under the protection of the Constitution and the Rules of Evidence. Prerequisites: Just 110, Just 250.

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. Spring.

JUST 360 **3 Credits**
JUSTICE PROCESSES (3 + 0)
Study of processes and issues in police, court and correctional agency operations. Definitions of goals; organizational design and development; organizing and managing financial, personnel and management processes; budget, union, communication, records; community-based programs; inspection, program assessment. Contemporary administrative process problems. Prerequisite: Just 110. Spring.

JUST 365 **3 Credits**
COMPARATIVE JUSTICE SYSTEMS (3 + 0)
Justice systems are examined on a global basis, in contrast with American justice systems, as a basis for a comparative approach to present-day national and international problems in crime and the administration of justice. Varying approaches—continental, Anglo-American and Eastern—to policing, corrections, legal systems, and social order are reviewed and evaluated.

JUST 370 **3 Credits**
JUDICIAL POLICY AND COURT ADMINISTRATION (3 + 0)
A review of the Alaska court system, its problems, management, policies, and procedures. Analysis of issues related to court operations and policies and alternatives to the current situation. Prerequisites: Just 110, Just 221.

JUST 375 **3 Credits**
LITIGATION (3 + 0)
Forms of dispute settlement with emphasis on negotiative processes, mediation, arbitration, settlement in the legal context, litigation, the management of discovery, trial and evidence. Prerequisite: Just 110 or permission of instructor. Spring.

JUST 380 **3 Credits**
SOCIAL SERVICE LAW (3 + 0)
Principal legal problems encountered by service professionals in fields such as health, employment, welfare and social work, with special emphasis on professional liabilities and poverty law.

JUST 385 **3 Credits**
URBAN POLICE PROBLEMS (3 + 0)
Exploration of a variety of contemporary problems and issues related to the provision of urban police services. Issues considered may include alternatives to arrest, patrol methods, police officer-citizen relations, job stress, and use of deadly force. Prerequisite: Just 110.

JUST 413/JPC 413 **3 Credits**
COMMUNICATIONS LAW (3 + 0)
Legal rights, privileges, and regulations of press, radio, television, and films; libel, contempt, copyright, rights of privacy; decisions of regulatory bodies.

JUST 435 **3 Credits**
INTRODUCTION TO CONSTITUTIONAL LAW (3 + 0)
Growth and development of the United States Constitution as reflected in decisions of the Supreme Court. Federal system; executive, legislative and judicial powers; nature of the judicial process, regulations of commerce, taxation.

JUST 436 **3 Credits**
COURTS AND CIVIL LIBERTIES (CONSTITUTIONAL LAW II) (3 + 0)
Origin and development of civil and political liberties; responsibility of branches of government and people for their maintenance. Cases and literature bearing on protection of constitutionally guaranteed rights with particular reference to period since 1937.

JUST 440 **3 Credits**
POLICE ADMINISTRATION (3 + 0)
Focuses on critical issues and situations faced by police executives. Among the areas studied are decision-making, organizational strategies and service mixes, citizen complaint systems, change strategies and models, information systems, personnel management, financial administration and productivity measurement. Prerequisites: Just 110, Just 221.

JUST 451 **4 Credits**
RESEARCH AND POLICYMAKING (3 + 3)
An overview of social research methods and procedures as related to justice policy development, implementation and assessment. Students are exposed to the policymaking process, qualitative and quantitative information producing tools, research utilization strategies and research proposal writing. Laboratory is required. Prerequisites: Just 110, upper-class standing. Fall.

JUST 454/PSY 454/SOC 454 **3 Credits**
EVALUATION RESEARCH AND CHANGE (3 + 0)
Application of evaluation research to the policymaking process. Presented are evaluative research strategies including monitoring, process evaluation, cost-benefit analysis and impact evaluation. Special attention is given to designing evaluation projects, analyzing and interpreting results, preparing and presenting evaluation research reports in the justice, human and community service fields. Prerequisite: Just 451 or a research methods course. Spring.

JUST 455 **3 Credits**
RURAL JUSTICE (3 + 0)
Multi-disciplinary study of "bush justice" in rural Alaska and in other Arctic settings including Greenland and Canada. A study of the interplay of law ways of Alaska Natives and early white populations with the developing military, territorial and state systems. Special focus on small village justice systems, traditional and modern; roles of police, councils, judges and others in the system; criminal and civil law; and alternatives to urban models, proposed or tested, in rural settings. Prerequisite: Just 110.

JUST 456/ANTH 456 **3 Credits**
ANTHROPOLOGY AND THE LAW (3 + 0)
Cross-cultural variations in forms of social control of law, including traditional Alaska Native forms. Moving beyond the purely theoretical concerns of law cross-culturally, this course will investigate legal service delivery problems in cross-cultural settings, drawing upon both anthropological knowledge and jurisprudence. Ways for improving legal service delivery systems will be examined.

JUST 462 **3 Credits**
INDIAN LAW AND THE SETTLEMENT ACT (3 + 0)
Study of the legal history and current legal status of Alaska Native people. Attention will be given to the social, cultural, and legal history of American natives in general and Alaska Natives in particular; the U.S. policies concerning natives and their rights; law of corporations and corporate structure of the Settlement Act; and legal rights, money control, and land management under Alaska Native Claims Settlement Act. Prerequisites: Just 110, Just 250.

JUST 465 **3 Credits**
LEGISLATION (3 + 0)
Relationship of ordering words and procedural language to policy objectives. Drafting and interpretation of rules, regulations, ordinances. Legal system design.

JUST 470 **3 Credits**
LAW OF GOVERNMENT REGULATION (3 + 0)
Administrative law and procedure in the context of federal, state and local agencies operating in Alaska. The course will include consideration of unfair competition and anti-trust law from the perspective of the businessman and consumer.

JUST 475 **3 Credits**
JUVENILE PROCEDURE (3 + 0)
A practical clinical course providing comprehensive coverage of the Alaska Children's Code and Juvenile Law procedures. Prerequisite: Just 203 or permission of instructor.

JUST 480 **3 Credits**
CORRECTIONAL SYSTEMS MANAGEMENT (3 + 0)
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. Prerequisites: Just 110, Just 251.

JUST 487 **3 Credits**
SEMINAR IN AMERICAN LEGAL HISTORY (3 + 0)
Selected topics, including the criminal law of slavery, the emergence of the negligence principle, the history of conspiracy, the Salem witch trials, and school desegregation in Little Rock are explored by student analysis of primary historical data including reports, trial transcripts and contemporary reports. Prerequisite: Just 250 or permission of instructor.

JUST 488 **1-6 Credits**
RESEARCH PRACTICUM (1-6 + 0)
The application of research skills to the study of a problem in the justice field. Involves field research and related independent study. Prerequisites: Just 451 or equivalent and permission of instructor.

JUST 491 **3 Credits**
NATURAL RESOURCE LAW (3 + 0)
An introduction to the law of land and resource development, with special emphasis on land and water use regulation and public land issues.

JUST 625 **3 Credits**
SEMINAR IN CRIMINAL VIOLATION (3 + 0)
An advanced criminology seminar which will explore the application of various theories of crime causation to specific kinds of criminal violation. Students will use criminological theory in an effort to explain different types of criminal behavior and to assess both methods of prevention and potential treatment of the violator. Topics will include: crimes of violence, crimes against the public order, organized crime, white collar crime, etc.

JUST 630 **3 Credits**
JUSTICE ADMINISTRATIVE THEORY & PRACTICE (3 + 0)
An advanced seminar to study policy development and the application of theory and research in the administration of justice organizations. Theories, practices, innovations and administrative strategies will be explored.

SCHOOL OF EDUCATION

Faculty

Dean: Sidney R. Bergquist, Professor
Professors: James M. Hotchkiss, Marilyn Kay Johnson, Ralph Van Dusseldorp
Associate Professors: Blaine Hanni, Virginia Johnson, Donald F. McDermott, Carlos Ovando, Thomas Sileo, Marilyn Lee Wilson
Assistant Professors: Marilyn H. Buckley, Claudia Dybdahl, Richard Frey, Joyce Honeychurch, Maureen C. Prenn, Donna Gail Shaw, A. Allan Turner, Debra Veit

In its mission to provide instruction, service and research to the Alaskan community, the School of Education offers curricula and programs designed to prepare personnel for various professional roles related to teaching in a variety of learning environments. For students interested in pursuing such studies, several types of curricula and programs are available.

1. Undergraduate and graduate curricula leading to accredited degrees and endorsement for educational certification in the State of Alaska.
2. Undergraduate and graduate curricula leading to accredited degrees which are not involved with endorsement for educational certification in the State of Alaska.
3. Undergraduate and graduate programs leading to endorsement for educational certification in the State of Alaska. These programs do not necessarily lead to a college degree.
4. Graduate study in Adult Education with an individually selected specialization. This curricula leads to an accredited graduate degree in Education, but does not lead to endorsement for educational certification in the State of Alaska.

In each of these curricula and programs, students are introduced to fundamental problems of education in the contemporary world through courses designed to develop perspective and understanding of the relationship of education to society. Courses provide theory and practice in the development of instructional materials and the understanding of methods of instruction. Students are formally admitted to an appropriate program on the basis of multiple criteria, including their ability to make a positive contribution to the educational profession.

DEGREES

Bachelor of Education (B.Ed.).
Master of Education (M.Ed.).
Master of Arts in Teaching (M.A.T.).

HIGH SCHOOL PREPARATION

The following high school courses are recommended in preparation for admission to the School of Education:

1. English composition and writing
2. Verbal communication
3. Mathematics through algebra
4. Computer related coursework will be helpful
5. Background in social sciences.

MINIMUM CREDITS REQUIRED FOR DEGREES

B.Ed.—130 credits
M.Ed.— 36 additional credits
M.A.T.—36 additional credits

Students should be advised that total credits frequently exceed minimums, especially at the graduate level. Due to prerequisite requirements and individually selected majors and minors, areas of specialization and/or emphasis, the total required credits frequently exceeds minimum.

CERTIFICATION PROGRAMS

The Alaska State Department of Education presently issues educational certificates under the "approved program" approach to certification. The University of Alaska, Anchorage has the responsibility of recommending persons who successfully complete one or more of its approved programs to the Commissioner of Education for certification. The Dean of the School of Education is the only person authorized to endorse students for the appropriate certificate. The approved programs at the University of Alaska, Anchorage are:

Elementary Education
Secondary Education
Physical Education
Counseling and Guidance
School Administration:
  Elementary Principal
  Secondary Principal
  Superintendent
Special Education:
  Learning Disabilities
Reading Specialist:
  Elementary
  Secondary
  K-12

In general, the coursework required in Educa-

tion for the Elementary, Secondary and Physical Education certificate is identical to that required by the Bachelor of Education degree for those programs. Information regarding required coursework for all approved programs may be obtained from the student's advisor, and individual checklists of requirements are available upon request from the Office of the Dean. Students who have met part or all of the program requirements at another university must take at least nine credits of approved education courses at the University of Alaska, Anchorage prior to being admitted to student teaching, practicum or internship, one of which is a requirement in every certification program.

BACHELOR OF EDUCATION DEGREES

Majors:

1. Elementary Education
2. Secondary Education
3. Physical Education

REQUIREMENTS FOR THE B.ED. DEGREE WITH TEACHER CERTIFICATION

The sequence for completing a Bachelor of Education degree with teacher certification in Elementary, Secondary or Physical Education moves through four distinct phases, each of which is a prerequisite for subsequent steps.

1. Admission to Education Pre-Major

a. Graduation from an accredited high school with a GPA of 2.5 or higher.

b. Completion of the following high school credits:

English—3
Mathematics—2
U.S. History—1
Natural or Social Science—2
Academic and elective areas—7

c. Meet general requirements for admission to UAA (see pp. 29-35).

d. Submit SAT or ACT scores.

e. Submit a minimum GPA of 2.5 on transfer credits from other institutions.

f. Apply for and be admitted to appropriate pre-major program:

Elementary
Secondary
Physical Education

2. Admission to Teacher Certification Program

See specific program, i.e. Elementary, Secondary or Physical Education requirements for admission to teacher certification. Admission to the School of Education does not guarantee admission to the teacher certification program.

3. Admission to Student Teaching

See specific program, i.e., Elementary, Secondary or Physical Education requirements for admission to student teaching.

4. Graduation Requirements for B.Ed. Degree with Certification

a. Completion of all degree requirements.

1. General University Requirements (see pp. 67-74).
2. General Education Degree Requirements (see each program for specific courses).
3. Specific major requirements (NOTE: only courses with a "C" or better may be applied to meet certification requirements).
4. At least 48 upper-division credits are required to graduate.
5. A total of 130 credits is required for the degree.

b. Completion of teacher certification program.

c. Must complete the School of Education computer competency requirement.

Elementary Education

A student interested in elementary education may obtain a B.Ed. in Elementary Education with teacher certification, a B.Ed. in Elementary Education without teacher certification, Alaska Teacher Certification for Elementary or a M.Ed. with an elementary education emphasis.

The B.Ed. in Elementary Education is a professional degree. Students, however, are introduced to a broad liberal arts education before entrance into the professional program. A unique feature of the program is the integration of practicum experiences with the methods courses, enabling students to work in classrooms throughout their last two years of study.

ADMISSION TO THE ELEMENTARY TEACHER EDUCATION PROGRAM

1. Meet all requirements for admission to education pre-major.
2. Complete a minimum of 45 semester credits or more (transfer credits may be used) with a minimum GPA of 2.5.
3. Complete the following courses with a mini-

mum grade of "B": Spch 111, Ed 201 and Ed 212.

4. Successfully complete the School of Education proficiency exams in reading, writing and mathematics.
5. Apply for and be accepted for admission to the teacher certification program.

ADMISSION TO ELEMENTARY STUDENT TEACHING

The committee on student teaching shall have the responsibility of determining a student's readiness to enroll in Ed 452, Student Teaching. The student must realize that standards set forth below constitute minimum preparation and it may be the judgment of the committee that the candidate needs further work to develop either content or methodological competencies.

1. Meet all requirements for admission and be admitted to the Teacher Education Program.
2. Complete all major and minor requirements with a minimum GPA of 2.5.
3. Complete the instructional media and computer lab checkouts.
4. Submit verification of physical examination, including tine test.
5. Complete the admission to student teaching application form (a) Fall semester: by March 1; (b) Spring semester: by October 15.

DEGREE REQUIREMENTS ELEMENTARY EDUCATION MAJOR

General Education Degree Requirements (37):

Credits

1. Oral Communication Skills 3
   Spch 111
2. Written Communication Skills 6
   Engl 111, 211, 213, 311
3. Reasoning Skills 3
   BA 110
   CS 105, 106, 107, 108
   ES 201
   Ling 110
   Phil 101
4. Quantitative Skills 3
   AS 300, 307
   Math 106, 107, 108, 200, 201, 202, 270, 272
5. Arts Area. 3
   Art 160, 261, 262, 367
   JPC 367
   Mus 122, 221, 222
   Thr 111, 311, 312, 411, 412
6. Humanities Area 6
   (at least two disciplines outside the major)
   Engl 121, 201, 202, 306, 307
   Fren 101, 102
   Hist 101, 102, 131, 132, 341
   JPC 215
   Phil 201, 211, 212, 301
   Span 101, 102
   NOTE: the courses listed in the Arts Area, except Art 160, Mus 122, and Thr 111, may be taken to fulfill the Humanities Area requirements; however, no course may be double-counted.
7. Natural Science Area 7
   (including one laboratory course)
   Biol 107, 108, 111, 112, 113, 114, 215, 239 252, 271
   Chem 105, 106, 120, 121
   Phys 103, 104, 211, 212
   Astr 103, 104
   Geol 111, 112
8. Social Science Area 8
   Psy 111
   Ling 101

Specific Major Requirements (63): Elementary Major

Credits

1. Prerequisites:
   Math 246—Modern Math Concepts for Elementary School 3
2. Core Courses:
   Ed 201—Orientation to Education 3
   Ed 212—Human Development and Learning 3
   Ed 313—Educational Psychology 3
   Ed 332—Tests and Measurements 3
   Ed 423—History, Philosophy, and Sociology of Education 3
3. Methods Courses:
   Ed 401—Social Studies for Elementary Teachers 3
   Ed 404—Teaching Science in Elementary Schools 3
   Ed 407—Teaching of Elementary Mathematics 3
   Ed 408—Elementary School Physical and Health Education 3
   Ed 409—Music in the Elementary School. 3
   Ed 418—Methods: Art in the Elementary School. 3
   Ed 419—Exceptionalities: Culture and Learning 3
   Ed 421—Developing Reading in Elementary School 6
   Ed 422—Teaching Language Arts and Literature. 6

4. Student Teaching:
   Ed 452E—Student Teaching—Elementary 12

ELEMENTARY EDUCATION TEACHING MINOR (18-24)

Elementary education majors (B.Ed. degree candidates only) are required to complete an approved minor. Approved minor programs will be completed by each student in conjunction with their assigned advisor.

CREDIT REQUIREMENT

At least 48 upper-division credits are required to graduate. A total of 130 credits is required for the degree. Students must complete 6-12 credits of approved electives.

Secondary Education

Students interested in Secondary Education may obtain a B.Ed. in Secondary Education with teacher certification, a B.Ed. in Secondary Education without teacher certification, an M.A.T. in Secondary Education with teacher certification, or a M.Ed. with a program in Secondary Education.

The B.Ed. and the M.A.T. in Secondary Education are professional degrees. However, students must complete a broad liberal arts education and course requirements for a teaching major before entrance in the professional program. Practicum experiences and methods courses are integrated, enabling students to work extensively in classrooms prior to student teaching.

DEGREE REQUIREMENTS SECONDARY EDUCATION MAJOR

General Education Degree Requirements (37):

Credits

1. Oral Communication Skills 3
   Spch 111

2. Written Communication Skills 6
   Engl 111, 211, 213, 311

3. Reasoning Skills 3
   BA 110
   CS 105, 106, 107, 108
   ES 201
   Ling 110
   Phil 101

4. Quantitative Skills 3
   AS 300, 307
   Math 106, 107, 108, 200, 201, 202, 207, 272

5. Arts Area 3
   Art 160, 261, 262, 367
   JPC 367
   Mus 122, 221, 222
   Thr 111, 311, 312, 411, 412

6. Humanities Area 6
   (at least two disciplines outside the major)
   Engl 121, 201, 202, 306, 307
   Fren 101, 102
   Hist 101, 102, 131, 132, 341
   JPC 215
   Phil 201, 211, 212, 301
   Span 101, 102
   NOTE: The courses listed in the Arts Area, except Art 160, Mus 122, and Thr 111, may be taken to fulfill the Humanities Area requirements; however, no course may be double-counted.

7. Natural Science Area 7
   (including one laboratory course)
   Biol 107, 108, 111, 112, 113, 114, 215, 239, 252, 271
   Chem 105, 106, 120, 121
   Phys 103, 104, 211, 212
   Astr 103, 104
   Geol 111, 112

8. Social Science Area 6
   (at least two disciplines outside the major)
   Anth 101, 200, 202, 250
   Econ 201, 202
   JPC 101
   Just 110, 250, 330
   Ling 101
   PS 101, 102, 311, 312
   Psy 111, 150
   Soc 101, 106, 201, 202, 222, 242
   SWK 106

Specific Major Requirements (42): Secondary Major

Credits

1. Education Pre-Methods:

   A. Prerequisites:
      GPA 2.5 or BA degree
      Established teaching major and minor
      Ed 201—Orientation to Education 3
      Ed 212—Human Development and Learning 3
      Passing scores on competency tests: English, Writing, and Mathematics

   B. Pre-Methods courses:
      Ed 313—Educational Psychology 3
      Ed 332—Tests and Measurements 3
      Ed 419—Exceptionalities: Culture and Learning 3
      Ed 423—History, Philosophy and Sociology of Education 3

2. Methods—Theory and Practice:

A. Prerequisites:
Interview by Secondary Committee
2.5 GPA in teaching major and minor
2.5 overall GPA
3.0 GPA in education courses
Coursework complete in teaching major and minor

B. Instruction Courses:
Ed 400—Practicum in Secondary Education 3
Ed 410—Methods for Reading in the Secondary School. 3
Ed 417—Language Across the Curriculum 3
Teaching Methods: Choose one of the following methods courses:
Ed 402—Methods of Teaching Secondary Science and Math. 3
Ed 403—Social Studies Methods—Secondary 3
Ed 405—Methods of Teaching Music. . . . 3
Ed 406—Methods of Teaching English for the High School 3
Ed 442—Curriculum and Instruction in Secondary Art. 3

3. Student Teaching:

A. Prerequisites:
3.0 GPA in education courses
2.5 GPA in teaching major and minor
2.5 GPA overall
Passing score on the teaching major proficiency test
Recommendation by the Secondary Education Committee
Current medical and tine test.

B. Student Teaching:
Ed 452S—Student Teaching—Secondary 12

NOTE: Only courses with a "C" or better may be applied to meet certification requirements (teaching major/minor and education requirements).

SECONDARY EDUCATION TEACHING MAJOR AND MINOR

Secondary majors must declare a teaching major and minor. Two options are available. Any course (including both required and elective courses) may be used, with advisor's approval, to meet these requirements.

OPTION A: Complete a teaching major and a teaching minor in one of the approved areas. Credit requirements vary according to the selected area, but this option typically involves approximately 50 credits, of which about two-thirds are applied to the major area and one-third to the minor area. A significant proportion of these credits are typically upper-division. Specific requirements for each area, as either a major or a minor, are available, along with a worksheet/checklist, in the Office of the Dean.

Major or Minor:
Art
Biology
Chemistry
Computer Science
English
History
Mathematics
Music

OPTION B: Complete an integrated teaching major-minor of 51 approved credits.

General Science
Social Sciences

At least 48 upper-division credits are required to graduate. A total of 130 credits is required for the degree.

Physical Education

Physical Education is both a discipline and a profession. The discipline of Physical Education is reflected in the sub-disciplinary research areas of Exercise Physiology, Sport Psychology, Biomechanics, Motor Learning, and Sports Medicine, to name only a few. The professional nature of the field is reflected in the presentation of teachers and practitioners in the areas of human movement.

Two degree tracks are available to Physical Education majors: B.Ed degree with teacher certification and B.Ed. degree without teacher certification.

DEGREE REQUIREMENTS
PHYSICAL EDUCATION MAJOR

General Education Degree Requirements (37):

Credits

1. Oral Communication Skills 3
Spch 111

2. Written Communication Skills 6
Engl 111, 211, 213, 311

3. Reasoning Skills 3
BA 110
CS 105, 106, 107 108
ES 201
Ling 110
Phil 101

4. Quantitative Skills 3
   AS 300, 307
   Math 106, 107, 108, 200, 201, 202, 270, 272

5. Arts Area. 3
   Art 160, 261, 262, 367
   JPC 367
   Mus 122, 221, 222
   Thr 111, 311, 312, 411, 412

6. Humanities Area 6
   (at least two disciplines outside the major)
   Engl 121, 201, 202, 306, 307
   Fren 101, 102
   Hist 101, 102, 131, 132, 341
   JPC 215
   Phil 201, 211, 212, 301
   Span 101, 102
   NOTE: The courses listed in the Arts Area, except Art 160, Mus 122, and Thr 111, may be taken to fulfill the Humanities Area requirements; however, no course may be double-counted.

7. Natural Science Area 7
   Chem 120 4
   Choose one from the following:
   Astr 103, 104
   Biol 107, 108, 111, 112, 113, 114, 215, 239, 252, 271
   Chem 105, 106, 121, Geol 111, 112
   Phys 103, 104, 211, 212

8. Social Science Area 6
   (at least two disciplines outside the major)
   Anth 101, 200, 202, 250
   Econ 201, 202
   JPC 101
   Just 110, 250, 330
   Ling 101
   PS 101, 102, 311, 312
   Psy 111, 150
   Soc 101, 106, 201, 202, 222, 242
   SWK 106

Specific Major Requirements (36): Physical Education Major

Credits

1. Education Pre-Methods:

   A. Prerequisites:
      GPA 2.5 or BA degree
      Established teaching major and minor
      Ed 201—Orientation to Education 3
      Ed 212—Human Development and Learning 3
      Passing scores on competency tests: English, Writing, and Mathematics

   B. Pre-Methods courses:
      Ed 313—Educational Psychology 3
      Ed 419—Exceptionalities: Culture and Learning 3
      Ed 423—History, Philosophy, and Sociology of Education 3

2. Methods—Theory and Practice:

   A. Prerequisites:
      Interview by Physical Education Committee
      2.5 GPA in teaching major and minor
      2.5 overall GPA
      3.0 GPA in education courses
      Coursework complete in Physical Education

   B. Instruction Courses:
      Ed 400—Practicum in Secondary Education 3
      Ed 410—Methods for Reading in the Secondary School. 3
      Ed 417—Language Across the Curriculum 3

3. Student Teaching:

   A. Prerequisites:
      3.0 GPA in education courses
      2.5 GPA in teaching major
      2.5 GPA overall
      Passing score on the teaching major proficiency test.
      Recommendation by the Physical Education Committee.
      Current medical and tine test.

   B. Student Teaching:
      Ed 452PE—Student Teaching—Physical Education 12

NOTE: Only courses with a "C" or better may be applied to meet certification requirements (teaching major/minor and education requirements).

Physical Education Teaching Major (53):

Credits

HS 203—Normal Nutrition 3
PE 150—Orientation to Physical Education 2
PE 151—Sports Proficiency—Recreational Sports 2
PE 152—Sports Proficiency—Team Sports 2
PE 153—Sports Proficiency—Individual Sports 2
PE 246—Advanced First Aid 2
PE 303—Techniques in Team Sports 2
PE 305—Techniques in Individual and Dual Sports. 2
PE 309—Techniques in Aquatics 2
PE 310—Techniques in Rhythms and Dance 2
PE 332—Tests and Measurements in P.E . 3

PE 406—Methods of Teaching Physical Education 3
PE 408—Elementary School Physical and Health Education 3
PE 421—Physiology of Exercise 3
PE 425—Organization and Administration of Physical Education 3
PE 430—Adaptive Physical Education . . . 3
PE 432—Biomechanics of Exercise and Sports 3
PE 440—Prevention and Care of Athletic Injuries 3
PE 460—Socio-Psychological Bases of Physical Education and Sport 3
PE 470—Human Motor Learning and Performance 3
Electives 2

REQUIREMENTS FOR THE B.Ed. DEGREE WITHOUT TEACHER CERTIFICATION

Students who wish to receive the degree without teacher certification may substitute twelve credits of general coursework approved by the School of Education in lieu of student teaching requirements.

MINORS IN EDUCATION

Although a minor is no longer required the following is listed for students outside the School of Education who desire it:

Credits

1. Non-Certification Minor in Education (18):
   Ed 201—Orientation to Education 3
   Ed 313—Educational Psychology 3
   Ed 332—Tests and Measurements 3
   Ed 423—History, Philosophy and Sociology of Education 3
   Education electives by advisement 6

2. Non-Certification Minor in Physical Education (20):
   PE 150—Orientation to PE 2
   PE 246—Advanced First Aid 2
   PE 425—Organization and Administration of PE 3
   Electives by advisement 13

3. Non-Certification Minor in Special Education (18-19):
   Ed 460—Exceptional Learner 3
   Ed 482—Mainstreaming 3
   Ed 484—Language Development/ Disorders 3
   Ed 485—Rural Special Education 3
   Ed 486—Organization and Management: Special Education 4
   Ed 487—Field Experience/Special Education 2-3

REQUIREMENTS FOR TEACHER CERTIFICATION ONLY

Elementary, secondary and physical education students holding bachelor's degrees from UAA or another institution may receive Alaska Teacher Certification for Elementary (K-8), Secondary (7-12) or Physical Education (K-8, 7-12, K-12). These students should apply for admission to the School of Education as teacher certification candidates and complete the requirements listed in the Specific Major Requirements under each program.

All programs require a one-semester general speech course. In addition, the elementary program requires the following general undergraduate educational courses: (a) six credits from Engl 111, 211, 213, or 311; (b) six credits from Hist 101 and 102 or Hist 131 and 132; (c) Ling 101 and Psy 111.

Graduate Degrees

The School of Education offers both master's programs and certification programs at the graduate level.

GRADUATE CERTIFICATION PROGRAM

The School of Education endorses for certification to the Department of Education upon successful completion of graduate programs in Guidance and Counseling, Reading, Administration and Special Education—Learning Disabilities. Students admitted only to a graduate certification program are assigned to a standing committee comprised of the department chairperson and faculty involved in the delivery of that program. Students must meet the course requirements approved by the Department of Education.

PROFESSIONAL FIELD PRACTICE

Prior to permitting the student to enter the final stage of preparation which is characterized by participation in a practicum or internship, the faculty committee will evaluate the student's performance in the program. Admission into this final phase of professional preparation is a faculty decision and is separate from entry into the graduate program. Difficulties, including minimal academic performance, attitude problem, poor field reports or other factors may result in denial of entry to practicum or internship.

Performance in practicum and internship is closely monitored, with stated minimum competencies and the development of individual objectives. Since this is the practice and application phase of professional development, it is assumed that students will demonstrate maturity in profes-

sional actions, attitude and performance. The State of Alaska issues certificates as a result of successful program completion as attested by the department program chairperson and the Dean.

MASTER OF EDUCATION (M.Ed.)

Students admitted to master's programs are assigned a three member committee comprised of full-time faculty from the major and related areas. The committee develops an individual graduate program for each student based upon transfer credits, program requirements and elective courses. The program may or may not include certification requirements. The approved program becomes the contract between the student and the University and must be completed within seven years of the earliest coursework on the program.

Within the curriculum of the M.Ed. program are several options, each with its own set of specific requirements. Each is designed to provide the student with advanced preparation in professional education. All but Adult Education may also lead to endorsement for educational certification in the State of Alaska.

Programs

1. Elementary Education
2. Secondary Education
3. Counseling and Guidance
4. Public School Administration (Elementary Principal, Secondary Principal, Superintendent)
5. Reading
6. Special Education (Learning Disability)
7. Adult Education (Selected Specializations)

Candidacy

When the student is in his/her final coursework, the master's committee will review the student's progress for admission to candidacy. Candidacy allows the student to enter the final program phase which includes written comprehensives and in some programs the development of a thesis or investigative project. Students must have completed their coursework with the minimum of a "B" average. No "C" grades can be counted toward a master's program earned in an undergraduate course. In addition, the committee will seek evidence of a student's acceptable performance in written expression prior to entering the final phase of the advanced academic degree.

The chairperson of the master's committee works closely with the student during this final phase, preparing for comprehensive evaluation and assisting the development of a project or thesis if appropriate.

Application Process to All Graduate Programs (See pp. 36-40, Graduate Admission)

The Office of Admissions and Financial Aid receives Graduate Applications for Admission until May 1 for the Fall semester and October 1 for the Spring semester for the School of Education.

The following steps outline the student's responsibility in the admission process:

1. Obtain an application form from the Office of Admissions and Financial Aid and return with appropriate fee.
2. Request that all official transcripts from previous college work be sent to the University of Alaska, Anchorage, Office of Admissions and Financial Aid, 3211 Providence Drive, Anchorage, Alaska 99508.
3. Sign up for the General Aptitude and the Advanced Education portions of the Graduate Record Examination. If you are not an Anchorage resident, this examination may be given at a University or Community College near you. Applicants who already possess an advanced degree need not take the GRE.
4. Take the Graduate Record Examination at the earliest date and have scores forwarded to the Office of Admissions and Financial Aid.
5. Monitor the receipt of materials in the Office of Admissions and Financial Aid. It takes approximately six weeks for Graduate Record Scores to be received after the testing date.
6. See an advisor in the School of Education.
7. Prepare the materials for a file in the School of Education by completing an application form and obtaining a minimum of three letters of recommendation or field experience rating forms describing recent pertinent professional experience. Forms are available for each major from the receptionist and/or advisors in the School of Education. Students without recent pertinent experience in the field may be required to sign up for one credit of supervised practicum. Completed forms should follow this experience.

Admission Procedures

When all official transcripts, Graduate Record Examination Scores, and other pertinent materials have been received by the Office of Admissions and Financial Aid, a copy of the student's file is forwarded to the School of Education, and combined with the School of Education materials, for consideration by a Graduate Committee. Students may be contacted for scheduling personal interviews with the Committee after their com-

pleted files have been reviewed. Written notification of committee action will be sent to the student.

One of the following actions can be expected from the committee:

1. Unconditional admission.
2. Conditional admission to include such requirements as taking a specified minimum of education coursework, maintaining a specified performance in coursework and/or retaking portions of the Graduate Record Examination.
3. Denial of Admission for stated reasons.

Criteria for Admission

Minimum Qualifications:

1. Hold a bachelor's degree.
2. Have a grade point average of 3.0 (on a 4-point scale) in the last 60 credits.
3. Graduate Record Examination with a combined aptitude score of 800 plus a performance on the Advanced Education portion at or above the 60th percentile.

Competitive Qualifications:

Applicants who meet the above criteria will be considered for program admission on a competitive basis, taking into account that higher scores are preferable to lower scores, good recommendations are preferable to marginal ones; a good interview is preferable to a poor one, and a match on personal and institutional goals is preferred. All things being equal, the Graduate Screening Committee will attempt to select the best candidates for available openings in all programs.

Graduation Requirements:

Minimum degree requirements for master's degrees in Education include:

1. Completion of the General University Requirements and master's degree requirements.
2. At least one year of successful contract teaching or administrative service, and hold, or be eligible to hold, an Alaska Teaching Certificate.
3. An official program must be approved by completion of nine credits of coursework.
4. Complete a minimum of eighteen credits in a program at the graduate (600) level.
5. Complete a minimum of thirty-six credits of approved coursework in a program. (See section on degree requirements).
6. At least 18 credits must be completed after the semester in which the student was admitted and an official program approved by his/her graduate committee.
7. Pass a comprehensive written examination. An oral examination may also be required by the student's committee.
8. Must complete the School of Education computer competency requirement.

(Cautionary Note: Graduate courses completed prior to being admitted as a graduate student will not necessarily be applicable toward a specific graduate degree program. Since recency of undergraduate credit is of concern to the candidate's committee when developing the graduate program, coursework completed seven or more years before the date of the degree may not be used to fulfill the requirements of the degree.)

Undergraduate courses with grades lower than a "B" cannot be applied to meet requirements. (Please refer to General University graduate degree requirements.)

Certification Endorsement Requirements:

1. Completion of the certification requirements. (Note: only courses with a grade of "C" or better may be applied to meet certification requirements.)
2. Recommendation of the appropriate chairperson.
3. Approval of the Dean.
4. Must complete the School of Education computer competency requirement.

Requirements for the M.Ed. Program Areas:

ELEMENTARY EDUCATION PROGRAM (36 Credits):

	Credits
Ed 603—Developing Reading in the Elementary School	3
Ed 604—Diagnosis and Correction of Reading Deficiencies	3
Ed 612—Human Relations in Education	3
Ed 622—Philosophy of Education	3
Ed 627—Education Research	3
Ed 631—Advanced Educational Psychology	3
Ed 635—School Organization and Relations	3
OR	
Ed 641—School Law	3
Ed 651—Curriculum and Instruction in Elementary Education	3
Electives by advisement	3

SECONDARY EDUCATION PROGRAM (36 Credits):

Prerequisites:

1. Baccalaureate Degree
2. Graduate Record Exam: score 800
3. 3.0 GPA on last 60 credits
4. Eligibility for Alaska Teaching Certificate
5. Three letters of recommendation
6. Recommendation by a UAA faculty member
7. One year successful teaching experience.

Required Courses:

	Credits
Ed 622—Philosophy of Education	3
Ed 627—Education Research	3
Ed 631—Advanced Educational Psychology	3
OR	
Ed 654—Brain Research: Development and Learning	3
Ed 652—Curriculum and Instruction in Secondary Education	3
Ed 653—Advanced Instructional Strategies for Secondary Education	3
Ed 699—Thesis	3-6

Cognate Electives:

Cognate electives (15-18) by advisement (15 credits must be taken in a cognate which coincides with subjects which are taught in the public school.)

COUNSELING AND GUIDANCE PROGRAM (40-42 Credits):

	Credits
Prerequisites:	
Ed 460—Exceptional Learner	3
Psy 265—Psychology of Abnormal Behavior	3
Required Courses:	
Ed 426—Principles and Practices of Guidance	3
Ed 480—Education of Culturally Different Youth	3
Ed 600—Orientation to Counseling/ Guidance	1
Ed 612—Human Relations in Education.	3
Ed 623—Counseling Skills	3
Ed 624—Group Counseling	3
Ed 627—Education Research	3
Ed 631—Advanced Educational Psychology	3
Ed 632—Career Information in the Public Schools	3
Ed 634—Counseling Practicum I	3
Ed 636—Counseling Practicum II	3
Ed 673—Counseling Exceptional Students	2
Ed 674—Families of Exceptional Youth	2
Ed 682—Assessment: Learning/ Behavior	2-4
Ed 698—Individual Research	3-6
OR	
Ed 699—Thesis	3-6

PUBLIC SCHOOL ADMINISTRATION PROGRAM (36 Credits):

	Credits
Prerequisites:	
Ed 313—Educational Psychology	3
Ed 332—Tests and Measurements	3
Required Courses:	
Ed 612—Human Relations in Education.	3
Ed 627—Education Research	3
Ed 631—Advanced Educational Psychology	3
Ed 635—School Organization and Relations	3
Ed 637—Public School Administration	3
Ed 638—Supervision for Improvement of Instruction	3
Ed 639—Public School Finance	3
Ed 641—School Law	3
Ed 643—Administrative Skills	3
Ed 651—Curriculum and Instruction in Elementary Education	3
OR	
Ed 652—Curriculum and Instruction in Secondary Education	3
Ed 660—Practicum: Principal	3-6
Electives by advisement	3-6

READING PROGRAM (36 Credits)

Two separate strands are available for elementary and secondary teachers; one for those who wish to train as reading specialists and the second for classroom teachers wishing to upgrade their skills in the teaching of reading. What follows are the core requirements and courses required within each strand.

	Credits
Core Requirements:	
Ed 417—Language Across the Curriculum	3
Ed 603—Developing Reading in the Elementary School	3
Ed 604—Diagnosis and Correction of Reading Deficiencies	3
Ed 607—Reading in the Content Areas	3
Ed 621—Culture, Language and Literacy	3
Ed 627—Education Research	3
Ed 631—Advanced Educational Psychology	3
Ed 698—Individual Research	6

Reading Specialist Requirements:
- Ed 606—Reading Clinic 3
- Ed 609—Reading: Supervised Practicum 3
- Ed 680—Theories of Learning Disabilities 3

Endorsement for certification as a reading specialist is available with this strand. Consult with the School of Education.

Classroom Teacher Requirements:
- Ed 618—Issues in Children's Literature . . 3
- Ed 619—Advanced Problems in Literacy. 3
- Ed 620—Integrating the Language Arts. . 3

SPECIAL EDUCATION PROGRAM** (36 Credits Minimum):

Credits

Required Courses:
- Ed 460—Exceptional Learner 3
- Ed 485—Rural Special Education 3
- Ed 627—Education Research 3
- Ed 676—Theories of Behavior Disorders . 3
- Ed 680—Theories of Learning Disabilities 3
- Ed 688—Collaborative Consultation 3
- Ed 698—Individual Research 3-6

OR
- Ed 699—Thesis 3-6

Electives by advisement.

** 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.

ADULT EDUCATION PROGRAM (36 Credits):

Adult Education is a specialized program within the Master of Education degree area. The program is designed to serve baccalaureate degree graduates who wish to complete a graduate degree program relevant to community, organization or institutional activities involving adult learners in a variety of situations. Individuals aspiring to instructional and/or managerial positions in such contexts as recreational programs, community mental health centers, programs for the retired or senior citizens, aerospace careers, community colleges, or similar learning environments may wish to enroll in this program. Successful completion of requirements leads to a Master of Education Degree in Adult Education. It does not lead to teacher certification either directly or indirectly.

Admission Requirements

1. A bachelor's degree from an accredited college or university with a concentration in a subject normally taught in a high school, community college or community education program or an Alaska teaching certificate with a minimum of 24 credits of education courses with an average GPA of 3.00.
2. One year of satisfactory teaching or administrative experience in an accredited public secondary school, community college or agency.
3. Admission is also contingent upon (1) satisfactory scores on various standardized tests, (2) a satisfactory personal interview conducted by School of Education faculty members, and (3) approval and availability of the desired specialization area, (4) meeting of prerequisites which may vary by specialization area.

The Adult Education Program includes four distinct segments:

Credits

1. Core Requirements:
   - Ed 612—Human Relations in Education. . 3
   - Ed 627—Education Research 3
   - Ed 655—Seminar on the Adult Learner . . 3
   - Ed 698—Individual Research 3-6

   OR
   - Ed 699—Thesis 3-6

2. Track Requirements:

   a. Teaching Track: Select 2 of 3 courses
      - Ed 631—Advanced Educational Psychology 3
      - Ed 638—Supervision for Improvement of Instruction 3
      - Ed 653—Advanced Instructional Strategies 3

      OR

   b. Managerial Track: Select 2 of 4 courses.
      - Psy 637—Organizational Environments . . 3
      - PAdm 603—Management Analysis 3
      - PAdm/BA 610—Organizational Theory and Behavior 3
      - Ed 637—Public School Administration . . . 3

3. Courses in selected area of specialization 12-15
   (See cautionary note below.)
4. Supervised field experience 6

The number of credits required in the specialization area will vary from 12 to 15, depending upon the variable credit elected in the research area. The total requirement of 36 is not affected.

Cautionary Note:

Choice of specialization area must be made at the time of application for admission. Courses to satisfy this requirement will be jointly selected by the student and the student's graduate committee. Since courses must be selected from offerings currently available at UAA, careful consideration of available specializations is necessary. Students will not be admitted to areas for which adequate course offerings are not available. Pre-application

advisement is available through the Office of the Dean of Education.

MASTER OF ARTS IN TEACHING

DEGREE REQUIREMENTS: SECONDARY

The Master of Arts degree (M.A.T.) is an intensive experience for the exceptional graduate student who has both academic preparation in a content area taught in the public schools and significant life experience. M.A.T. candidates must meet subject area requirements for each certification endorsement requested.

Approved teaching endorsement areas for the M.A.T.:

Art	General Science
Biology	History
Chemistry	Math
Computer Science	Music
English	Social Studies

Admission Requirements:

1. Baccalaureate degree with a GPA of 3.00 in baccalaureate major.
2. Score of 800 on the general GRE exam.
3. Three letters of recommendation.
4. Interview with secondary education committee. Conditional admission may be granted prior to receipt of GRE scores.

Candidacy Requirements:

1. To be advanced to candidacy for the M.A.T. degree, a student must:
   a. have unconditional admittance to the M.A.T. program.
   b. have completed at least nine resident credits.
   c. have maintained a GPA of 3.00 in the education coursework and in the teaching major.
2. Must apply for advancement to candidacy not later than the third week of the semester in which eighteen (18) credits of graduate study at UAA will have been completed.
3. Must complete the School of Education computer competency requirements.
4. Receive Graduate Study Committee approval of a final Graduate Study Plan.

Prerequisites:

Ed 313—Educational Psychology
Ed 332—Tests and Measurements

Required Courses:

	Credits
Ed 417—Language Across the Curriculum	3
Ed 419—Exceptionalities: Culture and Learning	3
Ed 402 or 403 or 405 or 406—Teaching Methods	3
Ed 687—Advanced Practicum: Education (to be taken concurrently with methods course)	3
Ed 607—Reading in the Content Area	3
Ed 652—Curriculum/Instruction in Secondary Education	3
Ed 627—Education Research	3
Six credits from the following:	6
Ed 622—Philosophy of Education	
Ed 631—Advanced Educational Psychology	
Ed 654—Brain Research: Development and Learning	

The National Teachers Examination (NTE) subject area competency test must be taken for each area of endorsement sought prior to the final phase of Advanced Practicum (ED 687).

Ed 687—Advanced Practicum: Education	9

A written comprehensive examination over both Education and the area of endorsement must be completed by the candidate prior to graduation. The written competency examination may be taken either before or after completion of the final phase of Advanced Practicum (ED 687).

Course Descriptions

Education

Courses which are required in degree or certification programs are offered on a regular basis. Some courses are offered once each year and some are offered every semester. Generally, required courses are offered at least once during alternate summer sessions. Courses which are not required in degree or certification programs may be offered on an irregular basis.

ED 201 **3 Credits**
ORIENTATION TO EDUCATION (1 + 6)
Nature of teaching, including the scholastic, professional, and personality requirements for effective teaching. Involves laboratory time in the public schools as teacher's aide. Open to all students. Required for students majoring or minoring in education. Fall and Spring.

ED 212 **3 Credits**
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, com-

munity workers and others interested in human development and learning.

ED 280 **2 Credits**
SIGN LANGUAGE I (2 + 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.

ED 281 **2 Credits**
SIGN LANGUAGE II (2 + 0)
Advanced 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. Prerequisite: Ed 280.

ED 313 **3 Credits**
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 principle 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 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 **3 Credits**
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 351 **1 Credit**
WORKSHOP ON ALASKA (1 + 0)
A workshop consisting of lectures and demonstrations by authorities in anthropology, biology, education, geography, mining geology, history, literature, art, wildlife, and various other teaching fields.

ED 400 **3 Credits**
PRACTICUM IN SECONDARY EDUCATION (0 + 9)
Practical field experience in secondary classrooms in local public schools. Individual schedules are arranged for the time in the classrooms. To be taken concurrently with enrollment in the appropriate required teaching methods course. Students gain practical experience in implementing instructional strategies, classroom management, and school procedures. Fall and Spring. Prerequisites: Admission to teacher certification program. Concurrent enrollment with teaching methods course. May be repeated for credit.

ED 401 **3 Credits**
SOCIAL STUDIES FOR ELEMENTARY TEACHERS (3 + 0)
Methodology and materials in the modern elementary social studies curriculum. Current trends in content and instructional techniques including unit planning and development, and inquiry techniques. Field experience in a classroom is required. Prerequisites: Ed 201, Ed 313, Ed 332 and prerequisites thereto. Spring.

ED 402 **3 Credits**
METHODS OF TEACHING SECONDARY SCIENCE AND MATHEMATICS (3 + 0)
Methods and teaching strategies for science and mathematics on the secondary level. Ed 400 must be taken concurrently. Prerequisite: Acceptance into the secondary education program. Must be taken prior to Ed 452.

ED 403 **3 Credits**
SOCIAL STUDIES METHODS—SECONDARY (3 + 0)
A course to assist future social studies/history teachers to determine key ideas and concepts and prepare lessons and a unit combining concepts and strategies. The student will evaluate effectiveness of the strategies and concepts in actual classroom settings. Prerequisites: Admission to teacher certification program and prerequisites thereto.

ED 404 **3 Credits**
TEACHING SCIENCE IN ELEMENTARY SCHOOLS (3 + 0)
A process oriented approach to teaching science. Modern concepts, methods and materials with emphasis on active involvement of the learner. Participation in science activities for all grade levels (K-6) required. Prerequisites: Ed 201, Ed 313, Ed 332 and prerequisites thereto. Spring.

ED 405/MUS 405 **3 Credits**
METHODS OF TEACHING MUSIC (3 + 0)
Methods and problems of teaching music in junior and senior high schools with emphasis on the general music program. Prerequisites: Admission to teacher certification, 100 semester credits, Ed 332 and prerequisites thereto, and Mus 232, or permission of instructor.

ED 406/ENGL 485 **3 Credits**
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 407 **3 Credits**
TEACHING OF ELEMENTARY MATHEMATICS (3 + 0)
Math topics and their relationship to the methods used in teaching elementary children, includes: sets; patterning; place value; operations with whole numbers and errors with them; operations with fractions and errors with them; evaluation of books and materials; gaming; geometry; metric measurement; mapping; problem solving; computers; calculators; diagnostic and prescriptive

testing; education theories; scope and sequence; and grouping and organization for math in the elementary classroom. Prerequisites: Math 246, math proficiency test, Ed 201, Ed 313, and prerequisites thereto. Fall.

ED 408/PE 408 **3 Credits**
ELEMENTARY SCHOOL PHYSICAL AND HEALTH EDUCATION (2 + 3)

Philosophy, source materials, group activities and program planning; participation required to gain skills and techniques of teaching health education and physical activities for elementary grade children. Prerequisites: Ed 313 and prerequisites thereto. Fall and Spring.

ED 409/MUS 409 **3 Credits**
MUSIC IN THE ELEMENTARY SCHOOLS (3 + 0)

Principles, procedures, and materials for teaching music to children at the elementary level. Prerequisites: Ed 313 and prerequisites thereto. Spring.

ED 410 **3 Credits**
METHODS FOR READING IN THE SECONDARY SCHOOL (3 + 0)

Provide understanding of the nature of the reading process and other prerequisites to teaching skills at the secondary level. Techniques and materials for teaching comprehension of subject matter. Field experience in a classroom is a requirement. Prerequisites: Admission to teacher certification program and prerequisites thereto.

ED 417 **3 Credits**
LANGUAGE ACROSS THE CURRICULUM (3 + 0)

Theory, research and practice of language across the curriculum. This course will consider speaking and writing from two perspectives: 1) as the primary means of learning: the cognitive grasp of new ideas, and 2) as the principal means of sharing acquired learning through exposition. Prerequisite: Admission to teacher certifcation program. Spring.

ED 418/ART 418 **3 Credits**
METHODS: ART IN THE ELEMENTARY SCHOOL (3 + 0)

Methods of teaching art principles, procedures and materials for the elementary school level. Students will explore a wide variety of art media basic to elementary art curricula. Throughout the semester, students will be responsible for developing, conducting, and evaluating curriculum activities. Prerequisites: Ed 332 and prerequisites thereto. Spring.

ED 419 **3 Credits**
EXCEPTIONALITIES: CULTURE AND LEARNING (3 + 0)

Examination of special education and multicultural considerations for undergraduate elementary and secondary education majors who are preparing to be teachers. (This course also includes instructional strategies to enhance the general education program of the exceptional population including culturally and linguistically diverse students and those with handicapping conditions.) Prerequisite: Ed 212. Fall and Spring.

ED 421 **6 Credits**
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 on the foundations of reading and the materials and methodologies used in elementary school programs. Field work required. Concurrent enrollment with Ed 422 required. Prerequisites: Ling 101, Ed 201, and Ed 332. Fall and Spring.

ED 422 **6 Credits**
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 required. Concurrent enrollment with Ed 421 required. Prerequisites: Ling 101, Ed 201, Ed 313, and Ed 332. Fall and Spring.

ED 423 **3 Credits**
HISTORY, PHILOSOPHY AND SOCIOLOGY OF EDUCATION (3 + 0)

Significant influences on American education from three aspects: the historical, with special emphasis on American roots of education; the sociological, with special emphasis on the social system which is the school; the philosophical, with special emphasis on the ancient roots and modern branches of influential thinking. Fall and Spring.

ED 426 **3 Credits**
PRINCIPLES AND PRACTICES OF GUIDANCE (3 + 0)

Introduction to the philosophies, organizations, patterns, tools, and techniques that aid teachers and guidance personnel in preparing students for responsible decision-making in modern society. Prerequisite: Ed 332 and prerequisites thereto. Fall.

ED 442/ART 442 **3 Credits**
CURRICULUM AND INSTRUCTION IN SECONDARY ART (3 + 0)

Objectives, scope, sequence, and presentation of art experiences at the secondary level; recommended practices, motivational, and evaluative aspects. Prerequisites: Minimum of eighteen credits in required art courses, Ed 313 and Ed 332 and prerequisites thereto. Fall.

ED 452E **12 Credits**
STUDENT TEACHING—ELEMENTARY (3 + 36)

Elementary student teaching consists of a sixteen week semester of full days in the classroom of the elementary schools approved by the School of Education. Experiences include: observations; teaming with host teacher and/or other team members; planning and conducting individualized instruction; organizing plans for grouping to meet varying needs of children; daily critique of performance by host teacher; weekly supervision and post-conference with university supervisor; and weekly seminar meetings of all student teachers with university faculty members. The classroom experience in the elementary school is designed to progress through the full range of teaching and classroom management responsibilities of an elementary teacher in a typical school situation. Prerequisite: See requirements for admission to student teaching. Fall and Spring.

ED 452PE **12 Credits**
STUDENT TEACHING—PHYSICAL EDUCATION (3 + 36)

Supervised teaching of physical education in schools approved by the School of Education. Course requires teaching full days for the entire semester on the elementary and/or secondary level depending on certification sought. Weekly seminary meetings of all student teachers with university faculty members. Prerequisite: See requirements for admission to student teaching. Fall and Spring.

ED 452S **12 Credits**
STUDENT TEACHING—SECONDARY (3 + 36)

Supervised teaching in secondary schools approved by the School of Education. The School of Education may limit registration, determine assignments, prescribe the number of teaching hours required, and cancel the registration of students doing unsatisfactory work. Prerequisite: See requirements for admission to student teaching. Fall and Spring.

ED 460 **3 Credits**
EXCEPTIONAL LEARNER (3 + 0)

The introductory course to the field of special education. The nature and characteristics of various physical and mental exceptionalities included in the special education population are covered. Prerequisite: Ed 212, or equivalent. Fall, Spring, and Summer.

ED 475 **3 Credits**
THE HANDICAPPED PRE-SCHOOL CHILD (3 + 0)

Objectives, principles, and procedures for developing pre-school programs for the handicapped child. Basic understanding of child development precedes a discussion of the preventative and educational role of preschool programming for the handicapped child. Management techniques and specific methods for teaching the pre-school handicapped child. Prerequisite social, emotional, and academic behaviors are described. Prerequisite: Ed 460. As demand warrants.

ED 477 **3 Credits**
ESL/SECOND LANGUAGE METHODS (3 + 0)

Overview for teachers of the current theories and methodologies involved in second language instruction. The focus will be on ESL (English as a Second Language) instruction for children and young adults. Field experience in a bilingual classroom is required. Fall.

ED 478 **3 Credits**
METHODS AND MATERIALS FOR BILINGUAL EDUCATION (3 + 0)

Overview for teachers of the current theories and methodologies for bilingual and multicultural education. Linguistic, social and cultural differences will be examined in relation to appropriate instructional strategies and materials for all learners. Field experience in a bilingual classroom is required. Spring.

ED 479 **3 Credits**
ASSESSMENT OF BILINGUAL/ESL EDUCATION (3 + 0)

The theoretical and practical aspects of language assessment of limited English proficient students. The content will center around current linguistic theory and the theoretical basis for most commercially available instruments, the diversity in assessment approaches, reliability and validity of assessment instruments, and guidelines for choosing among assessment approaches. Within all of these topics the course also necessarily deals with language as an integral aspect of culture and education. Spring.

ED 480 **3 Credits**
EDUCATION OF CULTURALLY DIFFERENT YOUTH (3 + 0)

Interdisciplinary study of problems encountered by teachers in educating culturally different pupils. Considers the psychological and social factors inherent in the educational process. Specific attention given to curricular improvement and teaching strategies appropriate for culturally different students. Prerequisite: Ed 313. Fall.

ED 481 **3 Credits**
THE MENTALLY RETARDED (3 + 0)

Basic understanding of mental retardation. Discusses the role of education of handicapped persons, the importance of early intervention, and consideration of such issues as labeling and the treatment of culturally different students. Includes an overview of characteristics, definitions and prevalence of various handicaps as well as their social, psychological and medical correlations. Prerequisite: Ed 460. As demand warrants.

ED 482 **3 Credits**
MAINSTREAMING (3 + 0)

Mainstreaming identification, referral and staffing procedures. Regular and special educators learn to understand the handicapped student and specific techniques to meet their special education needs in mainstreamed settings. Prerequisite: Ed 460 or concurrent enrollment.

ED 484 **3 Credits**
LANGUAGE DEVELOPMENT/DISORDERS (3 + 0)

Language development and disorders as they impact mildly and moderately handicapped students. The course addresses academic and social/emotional difficulties encountered by students and includes etiology, assessment and educational interventions. Prerequisite: Ed 460.

ED 485 **3 Credits**
RURAL SPECIAL EDUCATION (3 + 0)

Concepts related to the delivery of educational services to students with handicaps who live in areas of low population and/or relative isolation. Focuses on the impact of the individual teacher and the development of appropriate assessment and intervention services by dealing with the following topics: effective resource develpment, bilingual/multicultural concerns, program and personnel adaptation. Rural Alaska needs are a major focus, although content is appropriate for less isolated settings in other geographic areas as well as for small private schools. Prerequisite: Ed 460 or concurrent enrollment.

ED 486 **4 Credits**
ORGANIZATION AND MANAGEMENT: SPECIAL EDUCATION (4 + 0)

Competency based course that addresses special education curricular considerations for mildly handicapped students including the development of individualized education programs (IEP), writing behavioral objectives, task analysis, and making data based instructional deci-

sions. Course also addresses various theoretical bases of individual and classroom management.

ED 487 **1-6 Credits**
FIELD EXPERIENCE/SPECIAL EDUCATION (1 + 6-18)
Field experience with exceptional people in a variety of facilities in the Anchorage area. Individual schedules are arranged for observation time in public schools and agencies working with exceptional individuals of various ages. Required seminars accompany on-site time commitment from seven to twenty hours a week. Appropriate for students who are undecided about special education as a vocational option, students who want to know more about special education options in the Anchorage area as well as students majoring in special education. Prerequisites: Ed 460 or concurrent enrollment. Fall and Spring.

ED 600 **1 Credit**
ORIENTATION TO COUNSELING/GUIDANCE (1 + 0)
An introduction to the counseling/guidance program. Emphasis is placed on helping the student to become aware of the elements that go into the basic counseling process. Students are helped to become aware of their own strengths and weaknesses as they relate to becoming an effective counselor.

ED 601 **1 Credit**
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 603 **3 Credits**
DEVELOPING READING IN THE ELEMENTARY SCHOOL (3 + 0)
Study of current developments in reading theory and instructional practices. Procedures for program analysis and implementation of change. Individual in-depth study of specific problems related to reading instruction. Prerequisite: Ed 420. Fall.

ED 604 **3 Credits**
DIAGNOSIS AND CORRECTION OF READING DEFICIENCIES (3 + 0)
Nature of the reading process; emphasis on psychology involved in discerning reading difficulties, testing programs to ascertain specific disabilities in readiness, vocabulary, word-attack skills, comprehension, speed, and accuracy; specific suggestions for their correction; newer approaches to teaching reading. Prerequisites: Ed 420 or Ed 410 and experience in the teaching of reading. (In conjunction with Ed 605, Reading Lab.) Spring.

ED 605S **2 Credits**
READING LAB—SECONDARY (0 + 6)
Student works with a child who has been identified as having reading problems using testing and remedial techniques appropriate to his need. (Can be taken only in conjunction with Ed 607.)

ED 606 **3 Credits**
READING CLINIC (2 + 3)
A practicum approach to learning the techniques for evaluation and therapy regarding multiple types of reading difficulties. Prerequisite: Ed 604 or equivalent.

ED 607 **3 Credits**
READING IN THE CONTENT AREAS (3 + 0)
Development of strategies to teach content area material to a wide range of learners. Emphasis will be on a minimal number of reading strategies that are useful in meeting the needs of students in different subject areas. Intended for subject area teachers as well as reading specialists responsible for school-wide reading programs.

ED 609 **3 Credits**
READING: SUPERVISED PRACTICUM (0 + 9)
Supervised field experience with student and staff in public school. Graduate students will work with elementary and/or secondary faculty members to evaluate and implement reading programs. Prerequisites: Ed 420 or Ed 410 and Ed 606.

ED 612 **3 Credits**
HUMAN RELATIONS IN EDUCATION (3 + 0)
Development of attitudes and behaviors which will help all those involved in education to deal directly with the affective domain of learning. Effective sending and receiving in communication will be studied as well as techniques for creating a positive communication atmosphere for the profession. Fall and even Summers.

ED 613 **3 Credits**
AEROSPACE EDUCATION SEMINAR (3 + 0)
Graduate level orientation to the body of knowledge concerning aviation and aerospace industries. Designed for elementary and secondary teachers, aviation industry and agency participants.

ED 614 **3 Credits**
METHODS OF TEACHING AEROSPACE (3 + 0)
Methods, materials, and techniques for imparting aerospace information to elementary, secondary, and adult populations.

ED 615 **3 Credits**
HISTORY OF AVIATION AND AEROSPACE (3 + 0)
Study of aviation and space exploration history and implications toward modern society.

ED 616 **3 Credits**
AVIATION AND AEROSPACE—THE PRESENT AND FUTURE (3 + 0)
Study of current proposed research in aviation and aerospace. Closely coordinated with National Aeronautics and Space Administration publications.

ED 618 **3 Credits**
ISSUES IN CHILDREN'S LITERATURE (3 + 0)
Develop awareness of current issues in children's literature in terms of topic, criticism, genre, authors, and illustrations. Classroom applications include the development of a literature curriculum, and thus integration of literature, reading, and writing.

ED 619 **3 Credits**
ADVANCED PROBLEMS IN LITERACY (3 + 0)
Develop familiarity with issues and questions regarding literacy instruction in the public schools today. Students are expected to research, present, and develop a classroom project dealing with a question of their choice.

ED 620 **3 Credits**
INTEGRATING THE LANGUAGE ARTS (3 + 0)
Integration of the language processes: listening, speaking, reading, and writing; and the language content of literature and grammar into one unified curriculum, K-12. After establishing criteria for interdependency, students will review all language areas in order to assess their commonalities and individual variations. Using this assessment as a base, students will construct various models of language integration. Prerequisite: Graduate standing.

ED 621 **3 Credits**
CULTURE, LANGUAGE AND LITERACY (3 + 0)
Examination of the theoretical underpinnings of bilingual/crosscultural 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. Prerequisite: Graduate standing in the School of Education or permission of instructor.

ED 622 **3 Credits**
PHILOSOPHY OF EDUCATION (3 + 0)
Basic philosophic concepts and their historical development; philosophy applied to education and related issues and problems; examination of contributions of outstanding educators. Prerequisite: Graduate standing in Education. Fall and odd Summers.

ED 623/PSY 623 **3 Credits**
COUNSELING SKILLS (3 + 0)
A basic counseling skills training course, including theory, philosophy, and experience. Emphasis is on the interactions which promote both emotional growth and positive behavior change. Permission of instructor is required for students not admitted to graduate standing in the Psychology Department. Prerequisites: Psy 265 and 425.

ED 624/PSY 624 **3 Credits**
GROUP COUNSELING (3 + 0)
The development of theoretical constructs and their application to complex group interactions; an awareness of self as change agent in the evolving unique society of the group. Prerequisite or corequisite: Ed 623 or permission of instructor. Spring.

ED 626 **3 Credits**
INTRODUCTION TO COMPUTER ASSISTED INSTRUCTION (3 + 0)
Use of computers for instruction in elementary and secondary schools. Evaluation, selection and use of computer assisted instruction (CAI) programs. Integration of CAI into the curriculum. Emphasis is on microcomputers. Includes hands-on use of microcomputers.

ED 627 **3 Credits**
EDUCATION RESEARCH (3 + 0)
Techniques of education research; selection of topics and problems; data gathering, interpretation and preparation of reports. Prerequisite: Graduate standing in Education. Fall/Spring/Summer.

ED 629 **3 Credits**
INDIVIDUAL TESTS OF INTELLIGENCE (2 + 3)
Individual intelligence tests with emphasis on the Revised Standard Binet Intelligence Scale and the Wechsler Intelligence Scales. Prerequisites: Ed 332 and permission of instructor. As demand warrants and admission by consent of instructor.

ED 631 **3 Credits**
ADVANCED EDUCATIONAL PSYCHOLOGY (3 + 0)
Human emotional, mental, physical and social development. Emphasis on individual differences. Assumes one previous course in human development, educational psychology, and teaching experience. Prerequisite: Graduate standing. Spring and Summer.

ED 632 **3 Credits**
CAREER INFORMATION IN THE PUBLIC SCHOOLS (3 + 0)
Principles and practices of career guidance. Explains process of career choice, theories of career choice, sources of career information and methods of delivery of career information to counselees. Spring.

ED 634 **3 Credits**
COUNSELING PRACTICUM I (3 + 0)
The culminating activity of counselor preparation. The counselor candidate works in a school setting and experiences the real situation of a school counselor. Prerequisites: Ed 623, Ed 624 and permission of instructor. Fall and Spring. May be repeated for credit.

ED 635 **3 Credits**
SCHOOL ORGANIZATION AND RELATIONS (3 + 0)
The organization, control and support of American public education. Relations with other agencies and the public. Fall and odd Summers.

ED 636 **3 Credits**
COUNSELING PRACTICUM II
The culminating activity of counselor education preparation. The counselor educator candidate works in a variety of therapeutic settings and experiences the real work situation of a counselor. Prerequisites: Ed 623, Ed 624, Ed 634, permission of instructor. Fall and Spring. May be repeated for credit.

ED 637 **3 Credits**
PUBLIC SCHOOL ADMINISTRATION (3 + 0)
Responsibility pertaining to the organization of a school and the direction of personnel. Functions of instructional leadership. Public school administration as a career. Problems incident to public school administration in Alaska. Prerequisites: Ed 635 and Graduate standing in Education. Spring and even Summers.

ED 638 **3 Credits**
SUPERVISION FOR IMPROVEMENT OF INSTRUCTION (3 + 0)
Development, purpose, organization of supervisory programs; special attention to current in-service education programs. Prerequisite: Graduate standing in Edu-

cation. (Required for, but not limited to, administration majors.) Spring and even Summers.

ED 639 **3 Credits**
PUBLIC SCHOOL FINANCE (3 + 0)
Contemporary basis for raising and distributing federal, state and local education funds; problems of school financing in Alaska. Prerequisite: Graduate standing in Education. Spring and odd Summers.

ED 641 **3 Credits**
SCHOOL LAW (3 + 0)
Rights and responsibilities of teachers and pupils; rulings of the Attorney General; decisions of the courts, regulations of the State Board of Education. Prerequisite: Graduate standing in Education. Fall and even Summers.

ED 643 **3-6 Credits**
ADMINISTRATIVE SKILLS (3 + 0)
Development of practice in administrative, interpersonal and communication skills essential to school administration. Course content varies by semester. The course may be taken more than one time for credit. Fall and odd Summers.

ED 645 **3 Credits**
SCHOOL BUILDING AND PLANNING (3 + 0)
School site visitation, discussions with planning personnel, and reading in the area of school architecture will be the course basis.

ED 646 **3 Credits**
SCHOOL BUSINESS MANAGEMENT (3 + 0)
Operations of the school business manager will be the topic of research. State, federal, and local regulations and policies will be studied.

ED 651 **3 Credits**
CURRICULUM AND INSTRUCTION IN ELEMENTARY EDUCATION (3 + 0)
Opportunities for participants to explore a wide range of current developments in elementary education which relate to curriculum content and organization, teaching techniques, and current issues and movements in education. Spring and odd Summers.

ED 652 **3 Credits**
CURRICULUM AND INSTRUCTION IN SECONDARY EDUCATION (3 + 0)
Opportunities for participants to explore a wide range of current developments in secondary education which relate to curriculum content and organization, teaching techniques, and current issues and movements in education. Spring and even Summers.

ED 653 **3 Credits**
ADVANCED INSTRUCTIONAL STRATEGIES FOR SECONDARY EDUCATION (3 + 0)
A variety of inductive and deductive instructional strategies for secondary teachers with pertinent research on adolescent development and learning styles. Students will develop and model a variety of new strategies. Participants will experience supportive evaluation through peer coaching. Prerequisite: Ed 402 or permission of instructor.

ED 654 **3 Credits**
BRAIN RESEARCH: DEVELOPMENT AND LEARNING (3 + 0)
Examination of brain research and theories relevant to education. Course focus is to bring educators up to date on brain research and to provide the background information necessary to evaluate educational theories developed from brain research. Curriculum models and classroom activities will be developed and evaluated. Prerequisites: Ed 313 and Graduate standing.

ED 655 **3 Credits**
SEMINAR ON THE ADULT LEARNER (3 + 0)
Discussion of special topics related to the distinctive characteristics of the adult learner in a variety of learning contexts. Prerequisite: Graduate standing.

ED 660 **1-6 Credits**
PRACTICUM: PRINCIPAL
Field work in an appropriate educational or agency setting. Assignment will be respective to the principalship. Prerequisite: Approval of student's advisory committee. Fall and Spring. May be repeated for credit.

ED 661 **1-6 Credits**
INTERNSHIP: SUPERINTENDENT
Field work in an appropriate educational or agency setting. Assignment will be respective to the superintendency. Prerequisite: Approval of student's advisory committee. Fall and Spring. May be repeated for credit.

ED 663/ENGL 686 **1-5 Credits**
WRITING & LEARNING: ANCHORAGE WRITING PROJECT SUMMER INSTITUTE
An intensive course designed to introduce students to the writing process. Focus will be on teaching techniques, including student writing response groups, writing to assist learning, personal experience writing, cognitive organization, oral language, sentence combining, and grammar. Students will be required to participate in preliminary and post institute meetings.

ED 664/ENGL688 **1-3 Credits**
WRITING AND 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: Three credits of ENGL 686 or ED 663.

ED 672 **3 Credits**
ISSUES AND TRENDS IN SPECIAL EDUCATION (3 + 0)
A critical analysis of the current trends affecting special education programming across the country and in the state and local community. Includes an in-depth review of the literature describing trends and participation by local individuals in issues pertinent to the Alaska communities. Exposure to private and public agencies available to and for handicapped persons in Alaska is included in this course. Prerequisite: Ed 687 or concurrent enrollment.

ED 673 **2 Credits**
COUNSELING EXCEPTIONAL STUDENTS (2 + 0)
Theories and techniques for the professionals who work with exceptional students. Course will cover school, family, vocational and personal problems of exceptional

students. Prerequisites: Graduate standing and permission of instructor.

ED 674 **2 Credits**
FAMILIES OF EXCEPTIONAL YOUTH (2 + 0)

Concepts, strategies and issues surrounding the parenting of exceptional children and youth. Professionals will be provided with an in-depth understanding of concepts and strategies required to devise comprehensive home/school programs that address family dynamics. Prerequisites: Graduate standing and permission of instructor.

ED 675 **3 Credits**
METHODS FOR EDUCATING THE MENTALLY HANDICAPPED (3 + 0)

Principles and methods of teaching mentally handicapped elementary and secondary students. Class participants will practice developing appropriate instructional programs for teaching mentally handicapped students communication skills, arithmetic skills, and social and vocational competencies. Various methods including unit instruction, clinical teaching, work/study programming, and programmed instruction will be explored for teaching the mentally handicapped student. Prerequisite: Ed 460. As demand warrants.

ED 676 **3 Credits**
THEORIES OF BEHAVIOR DISORDERS (3 + 0)

Theories, terminology, assessment, and intervention techniques applicable to teaching emotionally disturbed/behavior disordered children and youth in least restrictive settings. Course includes definition, causes and characteristics of emotional disturbance. Prerequisite: Ed 460.

ED 680 **3 Credits**
THEORIES OF LEARNING DISABILITIES (3 + 0)

Interdisciplinary contributions to the development of the field of learning disabilities including familiarity with a wide spectrum of theories such as educationally oriented concepts, perceptual motor systems, multisensory systems, language systems, psycholinguistic approaches, neuro-psychological concepts, and psychodynamic theories. The concept of specific learning disabilities will be developed by definition, probable cause, and characteristics of learning-disabled children. An overview proceeding from evaluation to instruction will include diagnostic teaching, newer approaches to reading and specialized methods to prevent and remediate deficits in social, mental and physical development. Fall and even Summers.

ED 682 **2-4 Credits**
ASSESSMENT: LEARNING/BEHAVIOR (2-4 + 0)

Techniques and methods for assessing exceptional students. The focus is on the historical development, basic purpose and assumption of assessment; testing terminology and statistics; and the administration and interpretation of formal and informal assessment procedures. Special education students are required to spend time outside of class testing children and youth. (Counseling and Guidance students enroll for two credits only.) Prerequisites: Available to Graduate majors in special education, counseling and guidance or by permission of instructor.

ED 685E **4 Credits**
STRATEGIES: EDUCATIONALLY HANDICAPPED—ELEMENTARY (4 + 0)

A competency based course in the development and implementation of instructional strategies appropriate for working with various types of learning disabilities. A theoretical basis for selecting and evaluating specific approaches to teaching the elementary student with learning disabilities will be presented. Limited to majors in special education, or by special arrangement. Prerequisites: Ed 680 or concurrent enrollment. Spring and odd Summers.

ED 683S **4 Credits**
STRATEGIES: EDUCATIONALLY HANDICAPPED—SECONDARY (4 + 0)

Specific problems concerning adolescents with educational handicaps. Emphasis is placed on preparing university students to recognize and cope with emotional characteristics; organize and manage individualized programs for secondary students (including mainstreaming); demonstrate instructional techniques, and be cognizant of vocational and career opportunities available. Extensive work outside the University class is required to practice educational strategies and to demonstrate competence. Limited to special education majors only, or by special arrangement. Prerequisite: Ed 680.

ED 684 **3 Credits**
THE GIFTED STUDENT (3 + 0)

Social, emotional, and educational problems of gifted students. Course will focus on divergent and convergent modes of thinking; understanding of cognitive abilities; and characteristics and methods of working with the gifted student. Prerequisites: Ed 460 or concurrent enrollment. Alternate year offering.

ED 686 **3 Credits**
WORK STUDY AND CURRICULUM FOR SECONDARY EXCEPTIONAL STUDENTS (3 + 0)

For secondary special education teachers it provides: 1) a basic understanding of the work/study concept; 2) practice in developing appropriate instructional programs for the high school mentally handicapped student; and 3) an introduction to the principles and methods of vocational evaluation, counseling and placement of the handicapped. Prerequisites: Ed 460 and Ed 481. As demand warrants.

ED 687 **1-12 Credits**
ADVANCED PRACTICUM: EDUCATION (0 + 3-36)

Supervised field experience with students in educational facilities. Students will be assigned to work with children in the area of specialization. Placement is arranged by the supervisor and the number of hours in assigned locations will vary according to the number of credits earned. Prerequisite: Graduate standing and permission of instructor or concurrent methods enrollment. Fall, Spring, and Summer, depending upon the program. May be repeated for credit.

ED 688 **3 Credits**
COLLABORATIVE CONSULTATION (3 + 0)

Roles, skills and competencies of the teacher consultant in the delivery of services to mildly and moderately handicapped students. The course will help teacher con-

sultants problem solve, and develop appropriate liaison activities within the educational setting. Prerequisite: Permission of instructor.

ED 690 **3 Credits**
ADVANCED SEMINAR: SPECIAL EDUCATION (3 + 0)

Current issues of concern to professionals in special education and related fields. Issues include ethics, philosophy, multi-disciplinary emphasis, assessment and intervention approaches and new directions in the field of special education. Intended for the post special education certification/master's student with field experience. The content of the course varies every semester and may be repeated for credit. Prerequisite: Certification and/or master's in special education and permission of instructor. As demand warrants.

THESIS AND INDIVIDUAL RESEARCH

As directed by graduate committee. Prerequisites: Ed 627 or concurrent enrollment in Ed 627 and permission of advisor.

Physical Education

PE 100 **1 Credit**
PHYSICAL ACTIVITIES AND INSTRUCTION (0 + 3)

Instruction, practice and activity in a variety of physical activities, sports and dance in separate sections. Sections as follows: Hockey, swim conditioning, firearms and hunter safety, basketball conditioning—men, basketball conditioning—women, hockey conditioning—men, beginning swimming, beginning power skating, intermediate figure skating, advanced figure skating, ski conditioning; Fall. Intermediate racquetball, beginning fencing, beginning figure skating, intermediate/advanced figure skating; Fall and Spring. Beginning racquetball, cross country skiing; Spring. Beginning golf; Summer. Competitive sports conditioning, racquet sports, physical fitness; Fall, Spring, Summer.

PE 150 **2 Credits**
ORIENTATION TO PHYSICAL EDUCATION

Introduction to basic theories and methods for achieving and maintaining high standards of physical fitness. General survey of community and school sports, and exercise programs as they relate to developing positive, long term, knowledgeable attitudes towards personal health. Orientation to current physical education and recreation activity, methods, and theory courses. Open to all students. Required of all physical education majors. Fall.

PE 151 **2 Credits**
SPORTS PROFICIENCY—RECREATIONAL SPORTS (1 + 3)

Development of an understanding of all rules and regulations as well as minimal skill level in the following recreational sports: archery, bowling, fencing, physical fitness, riflery, skiing, and weight lifting, etc. Fall.

PE 152 **2 Credits**
SPORTS PROFICIENCY—TEAM SPORTS (1 + 3)

Development of an understanding of all rules and regulations as well as minimal skill level in the following team sports: basketball, volleyball, soccer, softball, flag football, and hockey. Spring.

PE 153 **2 Credits**
SPORTS PROFICIENCY—INDIVIDUAL SPORTS (1 + 3)

Development of an understanding of all rules and regulations as well as minimal skill level in the following individual sports: tennis, handball/racquetball, swimming, golf, track, and field. Spring.

PE 200 **1 Credit**
VARSITY SPORTS (0 + 3)

Student-athlete's participation in a recognized intercollegiate varsity sport. Registration required during semester of competition. Restricted to one credit each academic year. Includes the following: Varsity cheerleading, varsity rifle, varsity cross country running, varsity swimming, varsity volleyball, varsity basketball—women, varsity basketball—men; Fall. Varsity hockey, varsity skiing; Spring. Prerequisite: Permission of coach.

PE 246 **2 Credits**
ADVANCED FIRST AID (2 + 0)

Basic, standard and advanced first aid packages of the American Red Cross. Successful completion of requirements leads to certification by the American Red Cross in advanced first aid. Fall.

PE 301 **2 Credits**
SPORTS THEORY AND COACHING (2 + 0)

Methods of coaching, playing and training in a variety of team sports played primarily at the junior and senior high school levels. Emphasizes both individual and team skills. Includes a basic understanding of all rules, organization, administration, theories and strategies for these games. Includes the following: Basketball; Fall. Hockey; Spring. Gymnastics, Volleyball; Spring. Soccer; Spring and Summer. Football; Fall.

PE 303 **2 Credits**
TECHNIQUES IN TEAM SPORTS (2 + 0)

Techniques for teaching the various team sports played primarily at the junior and senior high school levels. Emphasizes both individual and team skills. Includes a basic understanding of all rules, organization, administration, theories and strategies for these games. Even Falls.

PE 304 **2 Credits**
TECHNIQUES IN WINTER SPORTS (1 + 3)

Methods of teaching skills and coaching teams in snow and ice sports. Odd Falls.

PE 305 **2 Credits**
TECHNIQUES IN INDIVIDUAL AND DUAL SPORTS (1 + 2)

Techniques for teaching and coaching in a number of individual and dual sports to include a thorough understanding of the roles, theories, strategies, organization and administration, participation,and skill development. Odd Falls.

PE 306 **2 Credits**
TECHNIQUES IN GYMNASTICS (1 + 2)

Methods and practice in teaching tumbling and gymnastics apparatus. Even Springs.

PE 309 **2 Credits**
TECHNIQUES IN AQUATICS (1 + 2)

Satisfies requirements for American Red Cross certification in Basic Rescue and Water Safety and certifica-

tion in Basic Swim Instructor or Water Safety Instructor. Prerequisite: Permission of instructor. Spring.

PE 310 **2 Credits**
TECHNIQUES IN RHYTHMS AND DANCE (1 + 2)
Methods and practice in teaching rhythmic activities and dance. Odd Springs.

PE 321 **1 Credit**
PRACTICUM IN PHYSICAL EDUCATION
Student serves as a student-assistant in PE 100 class, or obtains an equivalent experience in a local school or recreation program. Prerequisite: Approval of the department head. May be repeated for a maximum of four credits. Fall and Spring.

PE 332 **3 Credits**
TEST AND MEASUREMENTS IN PHYSICAL EDUCATION (3 + 0)
Theory and application of the evaluation process in physical education including basic statistics; formation of measurable behavioral objectives; written test construction; survey of fitness and skill tests; their selection, administration and interpretation of results; and the use of basic computer programs to calculate various statistical values. Odd Falls.

PE 340 **2 Credits**
SPORTS AND RECREATION MANAGEMENT (2 + 0)
A survey of core areas of private and public recreation management. Areas covered include: management, finance, budgeting, marketing, personnel administration, planning, and research. Analysis of recreation opportunities and programs in Alaska, including legal issues and land status, are also studied.

PE 406 **3 Credits**
METHODS OF TEACHING PHYSICAL EDUCATION (3 + 0)
Philosophy, curriculum development, methods for facilitating learning and behavior modification, measurement and evaluation, observations and teaching in elementary and secondary school physical education.

PE 408/ED 408 **3 Credits**
ELEMENTARY SCHOOL PHYSICAL AND HEALTH EDUCATION (2 + 3)
Philosophy, source materials, group activities and program planning; participation required to gain skills and techniques of teaching health education and physical activities for elementary grade children. Prerequisites: Ed 313 and prerequisites thereto. Fall and Spring.

PE 421 **3 Credits**
PHYSIOLOGY OF EXERCISE (3 + 0)
Physiological adaptations of the human body to muscular activity in exercise and sports under different environmental conditions. Relationships of endurance, training, nutrition, temperature, and altitude to physical performance. Prerequisites: Biol 112 and permission of instructor. Even Falls.

PE 425 **3 Credits**
ORGANIZATION AND ADMINISTRATION OF PHYSICAL EDUCATION (3 + 0)
Philosophy, methodology, and problems of planning, organizing, directing, and evaluating school programs in physical education, intramural sports and inter-school athletics. Even Springs.

PE 430 **3 Credits**
ADAPTIVE PHYSICAL EDUCATION
Organization of adaptive physical education programs, orientation to common physical and mental disabilities, and the theories and techniques employed in teaching and evaluating handicapped students in physical education. Summer.

PE 432 **3 Credits**
BIO-MECHANICS OF EXERCISE AND SPORTS (3 + 0)
Mechanics of human movement, mechanical and muscular analysis of human movement patterns, especially in exercise and sports. Anatomical concepts and physical laws applied to joint and muscular action. Prerequisites: Biol 112 and permission of instructor. Odd Falls.

PE 440 **3 Credits**
PREVENTION AND CARE OF ATHLETIC INJURIES (2 + 2)
Prevention and care of injuries related to participation in sports and physical activity; theory and practice in taping and bandaging for prevention and rehabilitative purposes. Techniques in pre-activity and post-injury conditioning; and equipment safety. Prerequisite: Biol 112. Spring.

PE 460 **3 Credits**
SOCIO-PSYCHOLOGICAL BASES OF PHYSICAL EDUCATION AND SPORT (3 + 0)
An examination of theoretical and applied psychological and sociological parameters as they pertain to sports participation and physical activity. Prerequisite: Psy 111. Odd Springs.

PE 470 **3 Credits**
HUMAN MOTOR LEARNING AND PERFORMANCE (3 + 0)
Examination of theoretical and applied psychological parameters as they pertain to motor skill acquisition and human motor performance. Prerequisite: Psy 111. Odd Springs.

SCHOOL OF ENGINEERING

Faculty

Dean: Oscar E. Dickason, Professor

Professors: Theodore G. Eschenbach, John M. Hilpert, David C. Junge, Robert E. Miller, William G. Nelson, Arvind Phukan
Associate Professor: Jerry W. Wekezer
Assistant Professors: Ronald G. Cothren, Albert T. Stoddard
Adjunct Associate Professor: Elisha R. Baker

Professional engineering embraces the wide range of cultural and technical subjects related to the planning, design, and construction of works necessary for civilization. An engineer is an innovator, a builder, and a problem solver. The engineer turns scientific knowledge into goods and services useful to man and is responsible to society in the decisions he/she makes. The engineer is interested in creating, works with people, and is willing to work as a member of a professional team in a position of leadership. Engineers are concerned about people and how to provide all of us with a better standard of living.

In addition to providing the training necessary for entrance into the professional practice of engineering, an undergraduate degree in engineering provides an excellent background for those desiring to enter law, or business school, or graduate studies in engineering. The engineering programs at the University emphasize northern problems and principles; therefore, engineering graduates from the University are in great demand in the Alaskan job market.

Since engineering is based on the physical sciences of mathematics, chemistry, and physics, engineering students are introduced to the basic principles in these areas during their first two years of study. The third year of study is largely devoted to courses in the engineering sciences—extensions of the basic sciences forming the foundation for engineering analysis and design. In the senior year, students specialize within their disciplines and draw upon previous learning to focus their studies on creative design and analysis through simulated projects. Since engineers must be able to effectively communicate in written, oral, and graphic form and must be aware of their social responsibilities and roles in modern society, courses in communication, humanities, and social sciences are taken throughout the four-year engineering programs.

Degrees

The Bachelor of Science Degree in Civil Engineering is accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET).

The School of Engineering offers the course of study leading to the four-year Bachelor of Science degree in Civil Engineering. The first two years of this program also generally apply to most other fields of engineering. A student desiring to enter other fields can begin an engineering program here. The School also offers graduate level Master's Degree programs in Engineering Management, Science Management, Environmental Quality Engineering, Environmental Quality Science, Civil Engineering, and Arctic Engineering.

High School Preparation

The specific courses of high school work, which a freshman student must have completed for admission without deficiency to engineering are:

English: 3 years
Mathematics—Algebra: 2 years; Trigonometry: ½ year
Natural Science—Physics: 1 year; Chemistry: 1 year

It is recommended that the students graduating from high school without the preparation indicated above enroll in the necessary courses to make up deficiencies during the Summer session, so they can begin the Fall semester with the complete freshman curriculum in engineering.

For those students required to take Math 106 during the Fall, ES 111 will be taken during the Spring semester.

AVAILABILITY OF COURSES:

All required courses for the Bachelor of Science degree in Civil Engineering are presently offered. Students desiring baccalaureate degrees in specialties other than Civil Engineering should plan to transfer at the end of their second year.

The graduate offerings of the School of Engineering are scheduled to accommodate part-time, evening students. As a result, the graduate programs normally require two or more years for completion.

Each student is expected to consult an advisor for proper course selection.

ADMISSION

Applications for Admission to the School of Engineering will be accepted until May 1 for the Fall semester and October 1 for the Spring semester.

Arctic Engineering

The Arctic Engineering program is designed to provide graduate education for engineers who must deal with the unique challenge of design, construction, and operations in the cold regions of the world. The special problems created by the climatic, geological, and logistical conditions of the Arctic and sub-Arctic require knowledge and techniques not usually covered in the normal engineering courses. Of primary importance is a thorough knowledge of heat transfer processes and properties of frozen ground and frozen water, which are basic to most engineering activities in the Arctic. The areas of hydraulics, hydrology, materials, and utility operations are also uniquely affected by Arctic considerations.

The Arctic Engineering program requires a set of core courses that will prepare an engineer to understand and adapt to problems of cold regions. The program also allows students to study electives and advanced courses in their particular area of interest. Research activities carried out by faculty associated with this program can provide opportunities for project papers dealing with the most current Arctic knowledge.

Current development of petroleum and other natural resources has accentuated the demand for engineers trained in northern operations, both from private industries involved in development and government agencies planning or regulating these activities.

MASTER OF SCIENCE

1. Complete the General University Requirements for the graduate degrees as shown on pp. 67-74.
2. Complete the following degree and major specialty requirements:
   a. Bachelor's Degree in Engineering
   b. Core Courses (minimum of 15 credits)

	Credits
CE 603—Arctic Engineering	3
CE 681—Frozen Ground Engineering	3
CE 682—Ice Engineering	3
CE 683—Arctic Hydrology and Hydraulic Engineering	3
CE 684—Arctic Utility Distribution	3
ME 685—Arctic Heat and Mass Transfer	3
ME 687—Arctic Materials Engineering	3

   c. CE Project . . . 3
   d. Electives: 12 credits in areas related to/or supportive of the student's degree program and approved by the student's graduate committee.
3. School of Engineering requirement: Pass the State of Alaska Engineering-in-Training examination (examinations of other states accepted by the Alaska State Board of Examiners will meet this requirement).

Civil Engineering

Engineering embraces the wide range of cultural and professional subjects having to do with the planning, design, and construction of works necessary for civilization. Civil Engineering in particular deals with environmental control; bridges, buildings, dams, and harbor facilities; water resource development and waste disposal; water power, irrigation works, and drainage; air, water, highway, and railway transportation; construction and management; topographic surveying and geodesy; city management and developmental planning.

Graduate students should enter one of two programs: those whose goal is broad professional practice will ordinarily choose the curriculum leading to the Master of Civil Engineering degree; those whose interests or background favor a specialized program, with emphasis on research and/or advanced specialized study, will ordinarily select the Master of Science in Civil Engineering degree.

A degree program can include courses in Ocean Engineering, Environmental Quality Engineering, Engineering Management, and other areas in addition to the Civil Engineering courses.

BACHELOR OF SCIENCE—CIVIL ENGINEERING

1. Complete the General University Requirements on pp. 67-74.
2. Complete the General Education Degree Requirements for a baccalaureate degree on pp. 68-69.
3. Complete the major requirements:

	Credits
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

Spring Semester
ES 346—Basic Thermodynamics. 3
CE 344—Water Resources Engineering. . 3
CE 402—Transportation Engineering 3
CE 431—Structural Analysis. 4
Social Science/Humanities/Arts Area 3

FOURTH YEAR
Fall Semester
CE 415—Advanced Surveying. 3
CE 432—Steel Design 3
CE 441—Sanitary Engineering. 3
CE 435—Soil Mechanics 3
Social Science/Humanities/Arts Area 3
Science Elective 3

Spring Semester
ESM 450—Economic Analysis and Operations 3
CE 422—Foundation Engineering 3
CE 433—Concrete Design 3
CE 438—Design of Engineering Systems 3
Technical Elective 3

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

A total of 132 credits is required for the degree.

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.

Additional Academic Requirements for the Bachelor of Science in Civil Engineering:

1. All prerequisites for Engineering courses must be completed with a grade of "A", "B", or "C".
2. No Engineering course may be taken more than twice.
3. Students may not register during early registration for an Engineering class in which the student has previously received an "F" or "W".
4. In addition to the General University Requirements, Baccalaureate degree candidates in the School of Engineering must have a minimum GPA of 2.00 for all required 300 and 400 level Engineering courses taken at UAA.
5. A student who has a semester GPA in Engineering courses below 2.00 will be placed on notice by the School of Engineering. A student on notice who receives a semester GPA in Engineering courses below 2.00 will be disqualified from further study in the School of Engineering. A student on notice who receives a semester GPA in Engineering courses of at least 2.00 will be removed from notice by the School of Engineering.
6. A student who has been disqualified from further study in the School of Engineering will not be permitted to attend Engineering courses.

NOTE: A petition requesting an exception to the above requirements must be approved by the Dean of the School of Engineering. Decisions may be appealed to the UAA Faculty Senate's Admissions and Standards Committee.

MASTER OF CIVIL ENGINEERING

Students entering the Master of Civil Engineering program should have completed a bachelor's degree in Engineering.

A student will elect a Civil Engineering program approved by his/her graduate committee and must complete the General University Requirements and master's degree requirements.

Thirty credits of approved courses beyond the BS degree are required. MCE candidates will have passed the State Engineer-in-Training Examination prior to the awarding of the degree.

MASTER OF SCIENCE—CIVIL ENGINEERING

Students entering the Master of Science—Civil Engineering program should have completed a bachelor's degree in Engineering.

A student selecting this program will meet the General University Requirements and master's degree requirements plus the following: 30 credits approved by his/her graduate committee, of which six of twelve credits will be thesis.

Engineering Management Science Management

The Engineering Management and Science Management curriculum is designed for graduate engineers and scientists who will hold executive or managerial positions in engineering, construction, industrial, or governmental organizations. It includes human relations, financial, economic, quantitative, technical, and legal subjects useful in solving problems of management.

The curriculum includes graduate-level core courses in the subjects named above, plus additional course work either directed toward special problems such as Arctic Engineering or toward one of the more general fields of Engineering or science through projects or research in the application of management principles. In addition to an undergraduate degree, a candidate should have had on-the-job experience in engineering or science.

MASTER OF SCIENCE—ENGINEERING MANAGEMENT

MASTER OF SCIENCE—SCIENCE MANAGEMENT

1. Complete the General University Requirements for the graduate degrees as shown on pp. 67-74.

2. For the Master of Science in Engineering Management candidates must hold a Bachelor of Science or Master of Science in an engineering discipline. For the Master of Science in Science Management candidates must hold a Bachelor of Science or Master of Science in a scientific field.

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

	Credits
ESM 601—Engineers in Organizations	3
ESM 602—Marketing for ESM	3
ESM 605—Engineering Economy	3
ESM 608—Legal Environment for Engr. Management	3
ESM 609—Project Management	3
ESM 611—Basic and Cost Accounting for ESM	3
ESM 612—Fiscal Decisions in ESM	3
ESM 613—Human Factors in ESM	3
ESM 620—Statistics for ESM	3
ESM 621—Operations Research	3
ESM 684—ESM Project	3

   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 621 (Seminar in Management Information Systems).

   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/her program, if he/she 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.

Environmental Quality Engineering

The Environmental Quality Engineering curriculum is designed for graduate engineers and scientists who wish to pursue a career in the areas of water supply, treatment, and distribution; waste treatment, stream pollution, air pollution, and solid waste management. Consideration is given for broad study of the environment, prevention and abatement of quality deterioration, and solutions to environmental problems. Graduates will be prepared to hold positions in federal, state, and municipal agencies as well as in consulting engineering offices. The Environmental Quality Engineering degree requires a bachelor's degree in Engineering. For students having non-engineering degrees, an interdisciplinary program is available leading to the Master of Science in Environmental Quality Science. Applicants should refer to the general requirements for graduate study.

MASTER OF SCIENCE

Environmental Quality Engineering
Environmental Quality Science
(Interdisciplinary)

1. Complete the General University Requirements for the graduate degrees as shown on pp. 67-74.
2. Complete the following degree and major specialty requirements:

	Credits
EQE 601—EQS Measurements	3
EQE 602—Water Quality Management	3
EQE 603—Solid Waste Management	3
OR	
EQE 607—Measurements and Control of Air Pollutants	3
EQE 604—Environmental Quality Evaluation	3
EQE 605—Chemical and Physical Water and Waste Water Treatment Processes	3
EQE 606—Biological Processes	3
EQE 684—EQE Project	3
*EQE 693—Special Topics	0-3
*EQE 697—Independent Study	0-6
*EQE 699—Thesis	0-6
*Electives	6-9

A minimum of 30 credits of approved courses must be completed.

*Electives must have approval of graduate committee.

3. Thesis study (6 credits) is optional.

Thesis Option:

Thesis	6
Required courses	18
Electives	6
	30

Non-Thesis Option:

Special Project	3
Required Courses	18
Electives	9
	30

Course Descriptions

Civil Engineering

CE 112 **3 Credits**
ELEMENTARY SURVEYING FOR CIVIL ENGINEERS (2 + 3)
Basic plane surveying, taping, use of level, theodolite, and electronic distance measuring instruments, stadia, traverse, public land systems, and circular curves. Corequisite: ES 111. Spring.

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.

CE 402 **3 Credits**
TRANSPORTATION ENGINEERING (2 + 3)
Administration, economics, location, construction and maintenance of highways, railways, airports, and other transportation facilities. Spring.

CE 404 **4 Credits**
HIGHWAY ENGINEERING (3 + 3)
The design, construction, operation, and maintenance of facilities for transporting people and goods by highway and the economic, social, and environmental consequences. Prerequisites: CE 112, CE 435, and ES 341.

CE 412 **3 Credits**
ELEMENTS OF PHOTOGRAMMETRY (2 + 3)
Elementary study of aerial and terrestrial photographs as applied to surveying and mapping. Prerequisite: Permission of instructor.

CE 415 **3 Credits**
ADVANCED SURVEYING (2 + 3)
Azimuth by astronomic methods, route surveying, including horizontal and vertical curves, cross-sectioning, earthwork, reduction of electronic distance measurement, Alaska State Plane Coordinate System. Prerequisite: CE 112. Fall.

CE 416 **1 Credit**
BOUNDARY SURVEYING (1 + 0)
Surveying problems related to land subdivision with emphasis on the legal aspects. Both metes and bounds descriptions and platted subdivisions are considered.

CE 422 **3 Credits**
FOUNDATION ENGINEERING (3 + 0)
Principal of foundation action, spread footings, mats, pile foundations, retaining walls and bulkheads, bridge piers, cofferdams and abutments. Prerequisite: CE 435. Spring.

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 and of beams and columns under axial, and eccentrical 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 431.

CE 434 **1 Credit**
TIMBER DESIGN (1 + 0)
Essentials of structural design in timber. Design of basic components of solid and laminated timber, connections, arches, pole framing, diaphragms, stressed-skin construction and timber shells. Prerequisite: ES 331.

CE 435 **3 Credits**
SOIL MECHANICS (2 + 3)
Soil formation, identification and classification; physical and mechanical properties of soil, seepage, drainage and frost action; subsurface investigation; bearing capacity of soils, lateral earth pressures and stability of slopes. Prerequisites: ES 331, CE 334. Fall.

CE 438 **3 Credits**
DESIGN OF ENGINEERING SYSTEMS (3 + 0)
Introduction to system design methods for large scale engineering systems; linear graph project modeling and design drawings of Civil Engineering projects. Prerequisite: Senior standing in an engineering program. Spring.

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. Prerequisite: ES 341 or permission of instructor. Spring.

CE 470 **1 Credit**
CIVIL ENGINEERING INTERNSHIP (0 + 3)
Designed to give students the opportunity to investigate the practical workings of engineering organizations. Assignments individually arranged with cooperating organizations and agencies. Prerequisites: Senior standing or permission of department coordinator. Spring, alternate years.

CE 590 **4.8 CEU Credits**
ENGINEERING REFRESHER (PE)
Designed for the practicing engineer who has passed the State of Alaska Engineer-in-Training examination. It provides a review of fundamentals in civil engineering with emphasis upon material required to pass the State of Alaska Professional Engineer Examination.

CE 603 **3 Credits**
ARCTIC ENGINEERING (3 + 0)
Application of engineering fundamentals to problems of advancing civilization in polar regions. Logistics, foundations on frozen ground and ice, thermal aspects of structures, materials, transport, and communications, heating and ventilating. Prerequisite: Graduate standing or permission of instructor. Fall and Spring.

CE 617 **3 Credits**
CONTROL SURVEYS (3 + 0)
Geodetic surveying where the shape of the earth must be considered. Both horizontal and vertical control will be studied. Heavy emphasis on Alaska state plane coordinate system. Adjustments of level nets, traverses, triangulation, and trilateration. Prerequisite: CE 415 or other surveying experience acceptable to instructor. Spring, alternate years.

CE 620 **3 Credits**
CIVIL ENGINEERING CONSTRUCTION (3 + 0)
Construction equipment and methods, construction management and accounting, construction estimates and costs. Prerequisite: ESM 450 or equivalent.

CE 632 **3 Credits**
ADVANCED STRUCTURAL DESIGN (3 + 0)
Design of complex structures and frames. Live, dead, and earthquake loadings. Structural joints, columns, connectors, ties, and struts. Application of modern materials and techniques to design. Prerequisite: CE 431.

CE 649 **3 Credits**
URBAN TRANSPORTATION PLANNING (3 + 0)
The Urban Transportation Planning Process with emphasis on travel demand forecasting procedures using a multimodal approach. Prerequisite: Graduate standing in Engineering or Planning or permission of instructor.

CE 662 **3 Credits**
SURFACE WATER DYNAMICS (3 + 0)
Principles of open channel flow, ice covered flow, unsteady flow, streamflow as a sediment and pollution transport agent. Prerequisite: ES 341.

CE 663 **3 Credits**
GROUND WATER DYNAMICS (3 + 0)
Fundamentals of geohydrology, hydraulics of flow through porous media, well hydraulics, ground water pollution, and ground water resources development. Prerequisite: ES 341.

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

CE 681 **3 Credits**
FROZEN GROUND ENGINEERING (3 + 0)
Nature of frozen ground, thermal properties of frozen soil classification, physical and mechanical properties of frozen soils, sub-surface investigation of frozen ground, thaw settlement and thaw consolidation, slope stability, and principles of foundation design in frozen ground. Prerequisite: Training or experience in soil mechanics.

CE 682 **3 Credits**
ICE ENGINEERING (3 + 0)
Factors governing designs which must contend with the presence of ice and snow are discussed. Topics include ice growth, ice and snow structure, mechanical properties and their dependence on temperature and structure, creep and fracture, mechanics of ice sheets, forces on structures, and experimental methods. Prerequisites: ES 331, Math 202.

CE 683 **3 Credits**
ARCTIC HYDROLOGY AND HYDRAULIC ENGINEERING (3 + 0)
Aspects of hydrology and hydraulics unique to engineering problems of the north. Emphasis on Alaskan conditions, information from Canada and other circumpolar countries included. Prerequisite: CE 344 or equivalent.

CE 684 **3 Credits**
ARCTIC UTILITY DISTRIBUTION (3 + 0)
Practices and considerations of utility distribution in Arctic regions. Emphasis on proper design to include freeze protection, materials, energy conservation and system selection. Prerequisite: ES 341 or permission of instructor.

CE 685 **3 Credits**
SLOPE STABILITY (3 + 0)
Introduction to stability of slopes in soils and rocks; physical and mechanical properties of soils and rocks related to slope stability; residual stresses in rock masses; failures in overburden and rock masses; methods of slope stability analysis; role of slope stability in economic, design and operation of engineering projects. Spring, alternate years.

Engineering Science

ES 103 **3 Credits**
ENGINEERING GRAPHICS (1 + 6)
Correct use of drafting instruments. Orthographic projections, dimensioning, sketching with one- and two-point perspective, topography. Introduction to computer graphics. Two design projects. Open to Engineering students only. No prerequisites. Fall and Spring.

ES 111 **3 Credits**
ENGINEERING SCIENCE (3 + 0)
A survey of engineering science and problem solving techniques, including static and dynamic equilibria, presentation of results, and engineering ethics. Students will be introduced to the use of computers and will participate in a design project. Prerequisite: High school algebra and trigonometry or concurrent registration in Math 200. Fall and Spring.

ES 150 **3 Credits**
TECHNOLOGY AND SOCIETY (3 + 0)
An introductory course which integrates the conceptual tools required to analyze the impact of technology with a broad cross-section of applications. Includes such societal needs as energy generation and use, transportation, communications, water supply, waste disposal, industrial work, and health care. Presents the basic tools of mass and energy balance present worth discounting, and trade-off analysis. Discusses the factors which limit technological progress and emphasizes the impact of technology on our environment. Prerequisite: Math 107.

ES 201 **3 Credits**
COMPUTER TECHNIQUES (3 + 0)
An introduction to programming and analysis using FORTRAN. Computer solution of problems in engineering and physics. Micro-computer and programmable calculator applications. Prerequisites: Math 107, 108 or enrollment in Math 200. Fall and Spring.

ES 209 **3 Credits**
ENGINEERING STATICS (3 + 0)
Vector quantities, equilibrium including friction forces, structural mechanics, center of gravity and moments of inertia are considered. Prerequisites: ES 111 or Phys 211 and Math 201. Fall.

ES 210 **3 Credits**
ENGINEERING DYNAMICS (3 + 0)
Kinematics and kinetics of particles and rigid bodies are studied. Newton's law of motion, momentum and work and energy concepts are studied. Prerequisite: ES 209. Spring.

ES 301 **3 Credits**
ENGINEERING ANALYSIS (3 + 0)
Application of mathematical tools to engineering with emphasis on mathematical formulation of typical engineering problems. Selected topics from all fields of engineering. Prerequisites: Math 302 and ES 201. Fall.

ES 309 **3 Credits**
ELEMENTS OF ELECTRICAL ENGINEERING (3 + 0)
Electrical fundamentals: Elementary circuits and theorems, transformers, motors (AC and DC). Elements of power systems: Generation, transmission, distribution, load centers, overload protection, power factor; Amplifiers, instrumentation components and systems.

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.

ES 341 **4 Credits**
FLUID MECHANICS (3 + 3)
Statics and dynamics of fluids. Basic equations of hydrodynamics, dimensional analysis, simple hydraulic machinery. Prerequisites: ES 210, Math 201. Fall.

ES 346 **3 Credits**
BASIC THERMODYNAMICS (3 + 0)
Systems, properties, processes, and cycles. Fundamental principles of thermodynamics (first and second laws), elementary applications. Prerequisites: Math 202, Phys 212. Spring.

ES 590 **4.8 CEU Credits**
ENGINEER REFRESHER (EIT)
The purpose of this course is to enable engineers to pass the State Engineer-in-Training (Fundamental) Examination. Will cover thermodynamics, physics, chemistry, mathematics (calculus), electricity, statics, dynamics, strength of materials, kinematics, and hydraulics. Spring.

Engineering and Science Management

ESM 401 **3 Credits**
CONSTRUCTION COST ESTIMATING AND BID PREPARATION (3 + 0)
Compilation and analysis of the many items that influence and contribute to the cost of the proposals and study of bidding procedures. Preparation of cost proposals and study of bidding procedures. Spring, alternate years.

ESM 450 **3 Credits**
ECONOMICS ANALYSIS AND OPERATIONS (3 + 0)
Fundamentals of engineering economy, project scheduling, estimating, legal principles, professional ethics, human relations. (Not offered for credit toward the Master of Science in Engineering Management or Science Management.) Spring.

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.

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.

ESM 605 **3 Credits**
ENGINEERING ECONOMY (3 + 0)
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. Fall.

ESM 608 **3 Credits**
LEGAL ENVIRONMENT FOR ENGINEERING MANAGEMENT (3 + 0)
Devoted to those aspects of law specifically related to technical management. Contracts, sales, real property, business organization, labor, patents, insurance. Spring.

ESM 609 **3 Credits**
PROJECT MANAGEMENT (3 + 0)
Organizing, planning, scheduling, and controlling projects. Use of CPM and PERT; computer applications. Case studies of project management problems and solutions. Spring.

ESM 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.

ESM 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.

ESM 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.

ESM 620 **3 Credits**
STATISTICS FOR ESM (3 + 0)

Forecasting applications and techniques—technological, time series, judgmental, and regression. Other topics will include decision trees, 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.

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.

ESM 623 **3 Credits**
COMPUTER PROGRAMMING FOR ENGINEERING MANAGERS (3 + 0)

A course in basic FORTRAN programming, with application to engineering and science management problems. (NOT offered for credit toward the MS in Engineering Management or Science Management.)

ESM 684 **3 Credits**
ESM PROJECT (3 + 0)

Individual study of an actual engineering or science management problem, resulting in a report which includes recommendations for action. Fall, Spring, and Summer.

Environmental Quality Engineering

EQE 601 **3 Credits**
ENVIRONMENTAL QUALITY SCIENCE MEASUREMENTS (2 + 3)

Theory and laboratory procedures for determining quality of water supplies. Natural water quality, pollution loads and water and wastewater treatment plant parameters. Familiarization with "Standard Methods for Examination of Water and Wastewater." Experiments on unit processes of treatment systems are included along with consideration for solid waste and air pollution monitoring. Prerequisite: Permission of instructor. Fall*.

EQE 602 **3 Credits**
WATER QUALITY MANAGEMENT (3 + 0)

Concepts, rationale, theory, institutions and engineering aspects of water quality management. Methods of water quality management; low flow augmentation, in-stream aeration, stream and estuarine analysis; ocean disposal systems; diffuser analysis and design; control of thermal effluents, industrial discharges and arctic applications. Prerequisite: Permission of instructor. Fall*.

EQE 603 **3 Credits**
SOLID WASTE MANAGEMENT (3 + 0)

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.

EQE 604 **3 Credits**
ENVIRONMENTAL QUALITY EVALUATION (3 + 0)

Topics of environmental impact statements, environmental law (local, state, and federal), and environmental quality. Impact from projects of mining, highways, airports, pipelines, industrial development, water, wastewater and solid waste, and other theoretical considerations and case studies. Prerequisites: Graduate standing and permission of instructor. Fall*.

EQE 605 **3 Credits**
CHEMICAL AND PHYSICAL WATER AND WASTEWATER TREATMENT PROCESSES (3 + 0)

The theory and design of chemical and physical unit process utilizing the treatment of water and wastewater. Sedimentation and flotation, ion exchange, absorption, coagulation, precipitation, filtration, disinfection, reverse osmosis and aeration theories will be studied. Design problems for all unit processes. Prerequisites: Graduate standing and permission of instructor. Spring*.

EQE 606 **3 Credits**
BIOLOGICAL TREATMENT PROCESSES (3 + 0)

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. Prerequisites: Graduate standing and permission of instructor. Spring*.

EQE 607 **3 Credits**
MEASUREMENT AND CONTROL OF AIR POLLUTANTS (3 + 0)

General description of air pollutants and the processes that generate them; measurement of air pollutants including source sampling and ambient monitoring; summary of pertinent federal and state regulations; control technology for particulate and gaseous criteria pollutants; the impact of atmospheric conditions on pollutant levels; local pollutant problems.

EQE 684 **3 Credits**
EQE PROJECT (3 + 0)

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

***EQE sequence repeats every three semesters.**

Mechanical Engineering

ME 590 **4.8 CEU Credits**
ENGINEERING REFRESHER (PE)
Designed for the practicing engineer who has passed the State of Alaska Engineer-in-Training Examination. It provides a review of fundamentals in mechanical engineering with emphasis upon material required to pass the State of Alaska Professional Engineer Examination.

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. Prerequisite: Permission of instructor.

ME 685 **3 Credits**
ARCTIC HEAT AND MASS TRANSFER (3 + 0)
An introduction to 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. Prerequisite: Graduate standing or permission of instructor. Spring, alternate years.

ME 687 **3 Credits**
ARCTIC MATERIALS ENGINEERING (3 + 0)
The performance of materials subjected to temperature extremes typical of the Arctic are examined. Specific topics covered include metallic and nonmetallic solids, fuels and lubricants, batteries, electrical considerations, corrosions and human performance. Prerequisite: CE 603 or permission of instructor. Spring.

Petroleum Engineering

PETE 101 **3 Credits**
INTRODUCTION TO THE PETROLEUM INDUSTRY (3 + 0)
A survey of the petroleum industry from exploration through refining.

PETE 301 **3 Credits**
PETROLEUM DRILLING ENGINEERING (3 + 0)
Fundamental principles of rotary oilwell drilling and the Engineering principles used in actual field practice. Course will include field trip to observe drilling rig and related support equipment. Prerequisites: Phys 211, Math 201 or permission of instructor.

PETE 302 **3 Credits**
OIL WELL DESIGN AND PRODUCTION (3 + 0)
Fundamental principles underlying the analysis, design and engineering of petroleum production systems. Prerequisites: Phys 211, Math 201 or permission of instructor.

PETE 304 **3 Credits**
PETROLEUM RESERVOIR ENGINEERING (3 + 0)
Quantitative study of behavior prediction of volumetric and water drive oil and gas reservoirs by material balance. Prerequisites: Math 201 and Phys 212.

PETE 612 **3 Credits**
WELL TEST ANALYSIS (3 + 0)
A thorough treatment of oil and gas well test analysis including draw-down, build-up and interference, multiple rate testing, drill stem testing, fracture detection and transient rate analysis. Fundamental deviation and practical applications will be presented.

SCHOOL OF BUSINESS AND PUBLIC AFFAIRS

Faculty

Dean: Bradford H. Tuck, Professor (Economics)

Accounting

Professor: Richard A. Maschmeyer
Assistant Professor: Michael DeCelles
Adjunct Associate Professor: Joseph S. Merrill
Instructor: Eugene G. Lawn

Business Administration

Professors: Richard L. Ender, G. Hayden Green, Vern Hauck, John Choon Kim, Robert D. McWilliams
Associate Professors: Musa Essayyad, George A. Geistauts, Paul C. Jordan (Visiting), Donald L. Marx, Earl Naumann
Instructor: Gene Agee

Economics

Professors: O. Scott Goldsmith, Bradford H. Tuck
Associate Professors: Mathew D. Berman, Pershing J. Hill, Lee Huskey, Stephen L. Jackstadt, Gunnar Knapp

Planning

Professor: John A. Kruse
Associate Professor: Edward Lee Gorsuch

Public Administration

Professors: Garth N. Jones, Thomas A. Morehouse
Associate Professor: Steven E. Aufrecht

School of Business and Public Affairs

The School of Business and Public Affairs is located in the state's commercial, financial and cultural center, hub of international travel and trade. The proximity of the University to the city center allows the School of Business and Public Affairs faculty and students to work closely with business organizations and governmental units. Case studies, research, and off-campus education are facilitated by the willingness of the community to assist faculty and students in studying business and governmental institutions and activities.

In addition to degree granting programs the School of Business and Public Affairs encompasses three research and instruction centers.

Alaska Center for International Business

In recognition of the need for Alaska to strengthen business and economic relationships with Pacific-Asian and other nations, the University of Alaska Regents authorized the establishment of the Alaska Center for International Business in March 1984. The center is structured around three major components: instruction, including professional training and development; research directed at opportunities for and barriers to development of international markets for Alaska resources; and public service, including a comprehensive information system/data base focusing on international markets and Alaska resources. Students have a variety of opportunities to participate in center activities, including internships and research assistantships.

Center for Economic Education

The Center for Economic Education is jointly sponsored by the Alaska Council for Economic Education and the University of Alaska, Anchorage. The center conducts economic education classes and workshops for educators in the Anchorage and south-central Alaska area and provides educational materials and other assistance to individuals and school districts.

Institute of Social and Economic Research

Established in 1961, the Institute is a full-scale public policy and social science research institute, dedicated to applying its multi-disciplinary skills to the analysis of social and economic change in Alaska and northern regions. The Institute investigates such issues as the economics

of natural resource development; the social and economic impacts of resource development; the transportation and energy requirements of developing regions; the development of human resources and formal institutions; and the effect of modernization on Alaska Native peoples and cultures and on the quality of life in Alaska. Institute faculty hold joint appointments in the School of Business and Public Affairs and regularly teach in the degree programs. The Institute provides opportunities for student involvement in research through internships and research assistantships.

Undergraduate Degrees:

Bachelor of Business Administration
- Accounting
- Economics
- Finance
- Management
- Marketing
- Real Estate

Bachelor of Arts
- Economics

Graduate Degrees:

Master of Business Administration
Master of Public Administration
Master of Science: Planning

The Office of Admissions and Financial Aid receives Graduate Applications for Admission until May 1 for the Fall semester and October 1 for the Spring semester for the School of Business and Public Affairs.

Certificate Programs

Planning

English Competence

The School of Business and Public Affairs requires that all degree candidates demonstrate competence in English. Competence may be judged by student written coursework or by examination.

High School Preparation

The following high school courses are recommended in preparation for admission to the School of Business and Public Affairs:

English: Four full years including courses that emphasize comprehension and writing skills.
Math: Two years of Algebra, one year of Geometry, and one additional year of math electives.
Science: Three years of Science, preferably including some laboratory experience.
Foreign Language: Recommended.
Social Sciences: A minimum of three years, including one semester in economics.
Computer Science: A one-semester course or equivalent level of skills.

Business Administration

BACHELOR OF BUSINESS ADMINISTRATION

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

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

DEGREE REQUIREMENTS

To receive the BBA degree a student must satisfy all the General University Requirements for the baccalaureate degree (see pp. 67-74).

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.

The core requirements and the major requirements in one of the six majors listed below must be completed with a grade point average of at least 2.0 ("C"). In addition, certain lower-division prerequisite courses and restrictions on the acceptability of general education requirement courses are implicit in the list that follows. In order to assure adequate preparation and academic maturity for reaping the greatest possible benefit from upper-division course work and to facilitate timely completion of the program with a minimum

of scheduling conflicts, the student is strongly encouraged to complete all of these courses before registering for any upper-division SBPA courses.

	Credits
*Arts Area	3
*Humanities Area	6
Spch 111—Fundamentals of Oral Communication	3
Engl 111—Methods of Written Communication	3
**English 211, 213, 311, 312	3
BA 110—Computer Concepts in Business	3
Math 270—Applied Finite Mathematics	3
Math 272—Calculus for the Managerial Sciences	3
Econ 201—Introductory Macroeconomics	3
Econ 202—Introductory Microeconomics	3
Acct 201—Principles of Financial Accounting	4
Acct 202—Principles of Managerial Accounting (Accounting majors take Acct 260 Intermediate Accounting instead of Acct 202)	3
*Natural Science Area	7
*Social Science Area (Anth, Soc, Psy)	6

*For a list of acceptable courses see pp. 68-69.

**If the student does not receive a grade of "A" or "B" in Engl 211 or 213, he/she must pass one additional course from the following group: English 211, 213, 311, 312.

	Credits
Core Requirements:	
BA 325—Financial Management	3
BA 331—Business Law I	3
BA 335—Management Principles and Practices	3
BA 343—Principles of Marketing	3
BA 373—Elementary Statistics	3
BA 377—Operations Management	3
BA 462—Administrative Policy	3
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 electives	3
Upper-division electives	12
Economics Major Requirements:	
Econ 321—Intermediate Microeconomics	3
Econ 324—Intermediate Macroeconomics	3
Econ 350—Money and Banking	3
Econ 429—Business Forecasting	3
Upper-division Economics electives	12
Upper-division electives	15
Finance Major Requirements:	
Acct 260—Intermediate Accounting I	3
BA 425—Advanced Corporate Financial Problems	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:	
BA 359—Regulation of Industry	3
BA 361—Personnel Management	3
BA 376—Management Information Systems	3
BA 461—Labor Management Relations	3
BA 480—Organizational Theory and Behavior	3
BA 488—Social Issues in Business	3
BA 489—Corporate Management and Planning	3
Econ 429—Business Forecasting	3
Upper-division electives	15
Management Information Systems Emphasis:	
CS 102—Survey of Programming Languages	3
CS 210—Software and Hardware Concepts	3
CS 301—Program Development I	3
CS 302—Program Development II	3
CS 315—Systems Analysis Methods	3
CS 316—Structured Systems Analysis and Design	3
CS 360—Database Program Development	3
CS 414—Information System Planning and Management	3
CS 470—Software Development Project	3
Acct 316—Accounting Information Systems	3
Econ 429—Business Forecasting	3

Upper-division electives 12

Marketing Major Requirements:

BA 310—Consumer Behavior. 3
BA 327—Product Promotion Strategies . . 3
BA 379—Intermediate Marketing Management 3
BA 441—Marketing Problems 3
BA 445—Marketing Research 3
BA 480—Organizational Theory and Behavior 3
Econ 429—Business Forecasting. 3
Upper-division electives 18

Real Estate Major Requirements:

BA 306—Real Estate Fundamentals. 3
BA 322—Real Estate Law. 3
BA 323—Real Estate Appraising 3
BA 324—Real Estate Financing 3
BA 410—Real Estate Investment Analysis 3
BA 411—Computer Analysis in Real Estate Development and Management 3
BA 448—Property Management 3
Upper-division electives 18

MINORS

Accounting

Acct 201—Principles of Financial Accounting 4
Acct 202—Principles of Managerial Accounting 3
Upper-division credits in Accounting 9

Business

BA 325—Financial Management 3
BA 335—Management Principles and Practices. 3
BA 343—Principles of Marketing 3
BA 462—Administrative Policy 3
BA 480—Organizational Theory and Behavior 3
BA 489—Corporate Management and Planning 3

Prerequisites for the above courses must be satisfied.

Real Estate

Any 15 upper-division credits in Real Estate.

Economics

BACHELOR OF ARTS

The Bachelor of Arts in Economics is designed to provide a broadly based liberal arts education.

1. Complete the General University Requirements and General Education Degree Requirements for the degree as shown on pp. 67-74.
2. Complete major requirements as set forth below:

	Credits
Econ 201—Introductory Macroeconomics	3
Econ 202—Introductory Microeconomics	3
Econ 321—Intermediate Microeconomics	3
Econ 324—Intermediate Macroeconomics	3
Econ 350—Money and Banking.	3
BA 373—Elementary Statistics for Business and Economics	3
Econ 430—Mathematics for Economists	3
OR	
Econ 412—Econometrics.	3

3. Additional upper-division electives in Economics to total 30 credits. Math 272 or equivalent competency is required.
4. At least 60 upper-division credits are required to graduate.
5. A total of 120 credits is required for the degree.

MINOR IN ECONOMICS

Econ 201, 202, and 12 credits of upper-division Economics to include Econ 321 and 324.

Master of Business Administration

1. This degree is designed for the individual who desires to pursue a professional career in management or one of its subfields. A minimum of 30 credits is required for this program. The basic program consists of three major course blocks:
   a. Core courses (21 credits)
   b. Elective courses (6 credits)
   c. Administrative Policy course BA 655 (3 credits). Core courses must be completed prior to taking BA 655.
2. Core Courses

	Credits
BA 602—Applied Statistics	3
BA 610—Organizational Theory and Behavior	3
BA 612—Management Science	3
Econ 625—Economics and Public Policy	3
Acct 650—Management Accounting Seminar	3
BA 680—Seminar in Finance	3
BA 630—Seminar in Marketing	3
	21

3. Elective Courses:

   Elective courses must be approved by the student's graduate advisor.

4. In addition to satisfactorily completing the above 30 credits of course work, the student must pass a comprehensive examination. The comprehensive examination will be taken at the end of the student's program.

5. Students applying for admission (see pp. 36-40 Graduate Admissions) to the MBA program must have taken the Graduate Management Admission Test (GMAT—formerly ATGSB) and have scores submitted to the Office of Admissions and Financial Aid, together with official transcripts from all colleges and universities attended. In general, the candidate should have a total of at least 1050 points based on the formula: 200 times the undergraduate GPA plus the GMAT score (GPA based on 4.0 system); a limited number of students who do not meet the above requirements may be considered for admission on an individual basis by presenting appropriate evidence of potential for graduate work. This may include relevant managerial experience or previous graduate study in other programs. Students who hold a master's degree from an accredited institution are not required to take the GMAT examination.

6. The content of the MBA core courses assumes an undergraduate business administration background or equivalent level of knowledge. A student entering the program is expected to have introductory-level knowledge of accounting, finance, marketing management, micro and macroeconomics, statistics, quantitative analysis, business law, and mathematics (calculus). A list of undergraduate courses which will satisfy deficiencies is available through the Graduate Program Director's office.

7. At the time of admission to the Master of Business Administration program, each student will be assigned a graduate advisor. The advisor will assist the student in developing a program, identifying deficiencies, and suggesting appropriate methods for correcting any deficiencies.

8. Upon approval of the student's advisor and by completing additional course work (minimum of 21 credits), an MBA study may receive both the MBA and MPA degrees.

9. Real Estate Emphasis:

   The MBA student may also elect an emphasis in real estate. The emphasis courses are:

   BA 644—Seminar in Real Estate Development
   PL 650A—Comprehensive Planning and Applied Science

   Candidates selecting the real estate emphasis must satisfy additional program prerequisites (BA 323, 324, 410, 448). Real Estate emphasis candidates do not need to take any other MBA elective courses.

10. The above program description outlines minimum requirements. The faculty reserves the right, where warranted by an evaluation of a student's progress and apparent knowledge, to require additional course work or other appropriate preparation in order to insure that the degree recipient possesses adequate professional skills and capabilities. This includes the ability to reason and communicate effectively—both verbally and quantitatively.

11. In order to facilitate the forecasting of MBA course enrollments and to encourage candidates to be committed to completing their degree, a minimum of 9 semester credits each calendar year, commencing with their first term of enrollment, must be earned by the MBA candidate. The 9 semester credits may consist of either undergraduate prerequisite courses or graduate program courses. Failure to comply with the 9 credit minimum each calendar year may result in the student being dropped from the program.

Master of Public Administration

1. This degree is designed for the individual who wants to pursue a professional career in public administration. A minimum of 36 credits is required for this program.* The basic program consists of three major course blocks:

   a. Core courses (24 credits)
   b. Elective courses (9 credits)
   c. Administrative Policy Seminar course PAdm 659 (3 credits) or thesis (6 credits).

   *Thesis option requires 39 credits.

2. Core Courses:

	Credits
PAdm 601—Public Administration in the Contemporary Society	3
PAdm 603—Management Analysis	3

PAdm 604—Research Methods in Administration 3
PAdm 610—Organizational Theory and Behavior 3
PAdm 618—Accountability, Law and the Administrative Process 3
PAdm 624—Human Resources Administration 3
Econ 625—Economics and Public Policy . 3
PAdm 628—Administration of Financial Resources 3

3. Elective Courses: Students must take 9 credits in their emphasis areas. The emphasis areas are:

Public Management
PAdm 617—Public Sector Productivity . . . 3
Management electives as approved by advisor 6

Planning
PL 650A—Comprehensive Planning and Applied Science 3
PL 650B—Community/Regional Planning I 3
PL 650C—Community/Regional Planning II 3

Public Policy
Graduate Economics and analysis electives, and policy electives as approved by advisor 9

4. Candidates for the MPA who do not have public administration work experience will be required to do an internship.

5. In addition to satisfactory completion of required course work, the student must pass a comprehensive examination if the thesis is not elected. The examination will be taken at the end of the student's program.

6. Students applying for admission to the MPA program must have taken the Graduate Records Examination (GRE) or the Graduate Management Admission Test (GMAT) and have scores submitted to the Office of Admissions and Financial Aid, together with official transcripts from all previous colleges and universities attended.

7. Students entering the MPA program are expected to have introductory-level knowledge of American government, statistics, micro and macroeconomics, organizational theory and behavior, and accounting. Students deficient in any of these areas must make up these deficiencies by completing equivalent undergraduate courses.

8. At the time of admission to the Master of Public Administration program, each student will be assigned a graduate advisor. The advisor will assist the student in developing a program, identifying deficiencies, and suggesting appropriate methods for correcting these deficiencies.

9. Upon approval of the student's advisor and by completing additional course work and meeting other degree requirements (minimum of 21 credits applicable to the degree) an MPA student may receive both the MPA and the MBA degrees.

10. If the thesis option is selected, the student will have a thesis committee appointed. The individual candidate's thesis proposal is subject to the approval of the candidate's thesis committee.

11. The above program description outlines minimum requirements. The faculty reserves the right, where warranted by an evaluation of a student's progress and apparent knowledge, to require additional course work or other appropriate preparation in order to insure that the degree recipient possesses adequate professional skills and capabilities.

12. In order to facilitate the forecasting of MPA course enrollments, and to encourage candidates to be committed to completing their degree, a minimum of 9 semester credits each calendar year, commencing with their first term of enrollment, must be earned by the MPA candidate. The 9 semester credits may consist of either undergraduate prerequisite courses or graduate program courses. Failure to comply with the 9 credit minimum each calendar year may result in the student being dropped from the program.

COOPERATING DOCTORAL PROGRAM IN PUBLIC ADMINISTRATION WITH UNIVERSITY OF SOUTHERN CALIFORNIA

In cooperation with the School of Public Administration of the University of Southern California, a doctoral program in public administration is available where part of the candidate's academic degree requirements may be completed in the University of Alaska, Anchorage School of Business and Public Affairs. PAdm 689 applies to this program and is listed in the course descriptions section.

Further information about this cooperative doctoral program may be obtained from the School of Business and Public Affairs graduate program coordinator.

Master of Science in Planning

1. The primary objective of the planning degree program is to provide a graduate education which offers the required theory, methods, and experience for persons seeking entry into the field of regional and urban planning or other planning-related fields. This degree is designed for the individual who after completion of a Baccalaureate degree has become professionally involved or intends to become involved in physical, economic, and social planning. The degree will provide theoretical knowledge and practical application in the planning process, and is designed to meet a broad range of urban and rural affairs and administration needs. The interdisciplinary content of the degree will make students aware of the interrelations between the physical, social, and economic factors necessary to formulate and implement sound planning decisions and will provide an interdisciplinary focus for dealing with complex problems of human settlement and the environment.

2. A baccalaureate degree is required for admission to the planning program. The student's educational background must show a balance between physical, social, and economic courses to ensure adequate performance at the graduate level. When a student's background is considered deficient, a requirement will be made either to take courses offered at the undergraduate level or to take a proficiency examination on the subject. Students must take the Graduate Record Examination (GRE) unless the student holds a masters degree from an accredited institution (see pp. 36-40 Graduate Admission).

3. At the time of admission to the Master of Science in Planning program, each student will be assigned a graduate committee of three faculty members. The committee will assist during preparation of the thesis.

4. The Master of Science Degree in Planning degree requirements consist of:

   a. Course Requirements (30 Credits)
   b. Mini-courses/seminars (6 Credits)
   c. Internship/special studies/practical experience (6 Credits)
   d. Thesis (6 Credits)

5. Core Requirements

   Students will take the following required courses (30 credits).

	Credits
PAdm 628—Administration of Financial Resources	3
PAdm 604—Research Methods in Administration	3
Econ 626—Economics for Planners	3
PL 634—Resource Policy Administration	3
PL 650A—Comprehensive Planning and Applied Science	3
PL 650B—Community/Regional Planning I	3
PL 650C—Community/Regional Planning II	3
PL 661—Social Environment of Planning	3
PL 662—Legal Issues in Planning	3
PL 663—Design Criteria and Cost. Consideration in Planning	3
	30

Mini-courses/Seminars:

Students will take 6 credits chosen from the following one unit mini-courses or others as developed (6 credits).

	Credits
Land Laws	1
Social Impact of Land Development	1
Land Economics	1
Citizen Organizations and Socio-Political Structures—Citizen Input	1
Urban Economics	1
Source of Program Funding and Preparation of Grant Proposals	1
Housing—Analysis of Needs, Availability, Design and Financing Cities in History—New Towns	1
Writing of Reports for Public and Administration Use—Research, Editing, Graphics and Photography	1

Internship/Special Studies/Practical Experience:

Specialization in specific areas may be obtained either 1) by credit acquired through internship in an approved planning agency; 2) by taking courses, as approved by the advisory committee, in fields offered by the graduate School of Business and Public Affairs, Arts and Sciences, or Engineering; or 3) by selecting independent studies with the advice of the graduate school staff (6 credits).

Practical experience will be obtained by student participation in the activities of citizen commissions existing within the local government and state and federal agencies (Planning and Zoning Commission; OEDP Committee; Planning Board; Coastal Zone Management Council; public forum; community councils; school budget advisory committee, etc.).

Thesis:

Each student will undertake a major research effort resulting in the preparation of a thesis. The thesis topic will be from some area of community or regional planning. A three member faculty advisory committee will evaluate the adequacy of the thesis upon its completion. One faculty advisor will assist the student during development of the thesis (6 credits).

Each student must successfully pass an oral examination on the topic of the thesis and its preparation and defend proposed recommendations. Questions will also be asked on major planning areas covered.

Certification Program

PLANNING CERTIFICATE

This certificate is intended to increase understanding of the planning function of individual employers in local, regional, state, and federal governments. Persons engaged in certain kinds of private industries associated with resource development and management will find it useful as well. It is especially designed to enhance the abilities of persons engaged in urban, regional, resource, and environmental planning and such related areas as architecture, landscape architecture, engineering, community and rural development, general public administration, and real estate.

The certificate is designed for professionals who desire to expand their knowledge in the fields of planning, applied sciences, programming and scheduling of capital improvements, in addition to acquiring or increasing knowledge of:

1. The physical, social, economic and political context in which planning takes place.
2. The complexity of the planning process of various state, federal, and local agencies and departments.
3. The importance of citizen participation in the planning cycle.
4. Methods of evaluation of public needs and development of systems and schedules for delivery of services.
5. Knowledge of the administrative/management processes.

Persons admitted to this certificate program may pursue their work either within a graduate degree program or on a non-degree academic basis.

Application to the Professional Certificate Program in Planning will follow the same procedure as application to the Masters in Business and Public Administration program, except that graduate admission testing is not required.

Specific certificate requirements may be obtained from the School of Business and Public Affairs. Individual programs will be developed with the academic advisor.

Program Content and Standards

1. The candidate for the Planning certificate must have met the following prerequisites or show equivalent knowledge:
   a. Statistics; Public Administration; Economics; and Financial Administration. A list of specific courses to fulfill these prerequisites may be obtained from the candidate's graduate advisor.
2. For persons who meet the prerequisite, a minimum of 18 graduate semester credits of course work is required to receive a professional certificate in planning.
   a. Planning Courses: (12 semester credits)
      PL 650A—Comprehensive Planning and Applied Science
      PL 650B—Community/Regional Planning I
      PL 650C—Community/Regional Planning II
      Econ 626—Economics for Planners
   b. Electives (6 credits) from the following:
      PAdm 604, PL 634, 661, 668
   c. Internship (3 credits)
      The requirement may be waived provided the student has acquired practical experience. If waived, the student must take an additional 3 semester credits of electives, from the following areas:
      1) Natural Resources: (3 semester credits)
         PL 634 Resource Policy Administration, or an equivalent course in the field of natural resources.
      2) Research Methods: (3 semester credits)
         PAdm 604 Research Methods in Administration
      3) Seminar—Topics in Planning (1 semester credit each)
         PL 668—Various subjects dealing with planning processes, implementation, management of resources, etc. Will be announced in class schedules.

d. Students wishing to receive both a Planning Certificate and a graduate degree (other than the Planning degree) must complete at least 6 credits of appropriate work beyond the minimum required for the degree alone.

Course Descriptions

Accounting

ACCT 201 **4 Credits**
PRINCIPLES OF FINANCIAL ACCOUNTING (4 + 0)
An introduction to accounting concepts and principles. Preparation and analysis of financial reports as they relate to a sole proprietorship and corporation. (Equivalent to Acct 101 and 102. Credit will not be counted for both Acct 101/102 and Acct 201).

ACCT 202 **3 Credits**
PRINCIPLES OF MANAGERIAL ACCOUNTING (3 + 0)
The course treats the following topics at a principles level: Analysis and use of financial statements; costs behavior as it relates to break-even analysis and decision costs; basic elements of cost accounting and control; budgeting and cash flow planning. Prerequisite: Acct 201.

ACCT 260 **3 Credits**
INTERMEDIATE ACCOUNTING I (3 + 0)
Accounting processes, theory, principles of financial statements with in-depth study of present value, cash, marketable securities, receivables, and current liabilities. Prerequisite: Acct 201 or equivalent.

ACCT 301 **3 Credits**
INTERMEDIATE ACCOUNTING II (3 + 0)
Inventories, Property-Plant-Equipment, Intangible assets, and accounting for stockholder equity. Prerequisite: Acct 260.

ACCT 302 **3 Credits**
INTERMEDIATE ACCOUNTING III (3 + 0)
Long-term investments, bonds payable, pension costs, leases, accounting changes, and analysis of financial statements. Prerequisite: Acct 301.

ACCT 310 **3 Credits**
INCOME TAX (3 + 0)
A course designed for those who will practice tax (such as CPA's). Course content will be those aspects of Federal Income Tax Law pertaining to the computation of taxable income for individuals and sole proprietorship. Emphasis will be on theory, history, and developing the ability to relate the various principles into tax planning and research. Prerequisite: Acct 201, or permission of instructor.

ACCT 316 **3 Credits**
ACCOUNTING INFORMATION SYSTEMS (3 + 0)
The design and analysis of accounting systems for business entities in various industries. Internal control for the business, data processing, and its relationship to accounting systems examined. Prerequisite: Acct 201.

ACCT 342 **3 Credits**
MANAGERIAL COST ACCOUNTING (3 + 0)
A cost accounting course with managerial emphasis that includes the principles and practice of product costing techniques. Accounting as a control device is studied by applying the concepts of standards, variance analysis, and budgeting. The course also covers the use of cost data in decisions, including cost-volume-profit models, and relevant cost decisions. Prerequisite: Acct 201.

ACCT 401 **3 Credits**
ADVANCED ACCOUNTING (3 + 0)
A study of accounting for partnerships, business combinations, parent-subsidiary consolidated financial statements, and selected topics, such as branch accounting, foreign exchange accounting, installment sales, consignment accounting, fiduciary accounting, fund accounting, joint-ventures, real estate and franchise accounting. Prerequisite: Acct 302.

ACCT 402 **3 Credits**
ACCOUNTING FOR NOT-FOR-PROFIT ORGANIZATIONS (3 + 0)
This course covers the principles and practices of not-for-profit accounting for municipalities, school districts, hospitals, colleges, universities, and other non-profit entities in accordance with the latest pronouncements. Prerequisite: Acct 201 or permission of instructor.

ACCT 403 **3 Credits**
ADVANCED TAXES (3 + 0)
A study of federal and state income taxes relating primarily to partnerships, trusts and corporations with emphasis on the preparation of tax returns, tax planning, and selected tax problems. Also, social security taxes, sales taxes, gift, and estate taxes. Prerequisite: Acct 310.

ACCT 404 **3 Credits**
ADVANCED COST ACCOUNTING AND CONTROLLERSHIP (3 + 0)
A course designed to help the student interpret and apply complex cost data to specific management situations. The course will cover cost analysis for investment decisions, cost allocations, product costing using the process costing technique, and the presentation of cost data for management purposes. Emphasis is on application of data to management situations. Prerequisite: Acct 342.

ACCT 406 **3 Credits**
PETROLEUM ACCOUNTING (3 + 0)
Designed to prepare individuals for the many entry level accounting positions which will be available due to the Alaska pipelines and related oil and gas production. Course covers accounting applicable to exploration and development costs production, and disposition of product. Prerequisite: Acct 201.

ACCT 452 **3 Credits**
AUDITING (3 + 0)
A study of the procedures for verification of financial data and the professional standards applicable to the auditor's examination of financial statements and his expression of opinion relative to them. Prerequisite: Acct 302.

ACCT 454 **3 Credits**
ACCOUNTING INTERNSHIP (3 + 0)
Work experience in an approved position with supervision and training in various phases of accounting. Prerequisites: Advanced standing as an accounting major and permission of the head of the department.

ACCT 462 **6 Credits**
CONTEMPORARY ACCOUNTING PROBLEMS (6 + 0)
A course designed to cover accounting, statistical, and ethical topics either not covered or covered superficially in the program requirements leading to the BBA-Accounting degree, and to develop the additional proficiency necessary to meet entry level requirements for a career as a public accountant. Prerequisites: Advanced standing in accounting and permission of instructor.

ACCT 480 **3 Credits**
ACCOUNTING THEORY (3 + 0)
This is a capstone course designed to help accounting students find relationships among the various procedures learned in other courses. The content will cover income definition and measuring problems, asset input valuations, asset value changes, and AICPA statements relating to theory. Emphasis is on helping the student to learn to identify a type of problem, relate it to basic principles that govern, and to apply the principles to the specific problem at hand. Prerequisite: Acct 302.

ACCT 615 **3 Credits**
TAX PLANNING AND RESEARCH (3 + 0)
Tax planning for individuals, business organizations, estates, and trusts is explored by a study of the taxes which affect such plans. Special emphasis will be placed on planning for business organizations. Prerequisite: Acct 310, 403.

ACCT 650 **3 Credits**
MANAGEMENT ACCOUNTING SEMINAR (3 + 0)
A basic graduate course for non-accounting majors. The subjects covered deal with the assumptions and concepts underlying financial statements, the analysis and uses of financial statements, and the uses of cost accounting for decisions and control. Prerequisites: Acct 201 and 202.

Business Administration

BA 110 **3 Credits**
COMPUTER CONCEPTS IN BUSINESS (3 + 0)
An introductory course in computer concepts and programming designed to prepare the student to utilize a portion of the computer resources available at UAA. Topics include machine organization, program logic, flowcharting, programming, TSS and batch processing and Honeywell series 6000/600 TSS library programs. Actual hands-on experience with the computer is obtained by designing, building, and executing simple programs. The student is expected to spend three hours each week utilizing the SBPA computer lab.

BA 151 **3 Credits**
INTRODUCTION TO BUSINESS (3 + 0)
Business organization, nature of major business functions, such as management, finance, accounting, marketing, personnel administration. The opportunities and requirements for professional business careers.

BA 306 **3 Credits**
REAL ESTATE FUNDAMENTALS (PRINCIPLES) (3 + 0)
Principles of real estate, urban land economics, and governmental aspects of real property ownership and control.

BA 310 **3 Credits**
CONSUMER BEHAVIOR (3 + 0)
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 343 recommended.

BA 322 **3 Credits**
REAL ESTATE LAW (3 + 0)
A practical course surveying the various kinds of deeds and conveyances, mortgages, liens, rentals, appraisals, and other transactions in the field of real estate and the law. Prerequisite: 306 or permission of instructor.

BA 323 **3 Credits**
REAL ESTATE APPRAISING (3 + 0)
Designed to train students in the techniques and art of real estate appraising. Studies of valuation procedures via the cost, market, and income approach to real estate value. Prerequisite: BA 306 or permission of instructor.

BA 324 **3 Credits**
REAL ESTATE FINANCING (3 + 0)
An introduction to the operation of the monetary system, capital markets, venture capital, and financial institutions relative to real estate investing and development. Capital budgeting theory is covered and the mathematics of real estate finance, risk, and portfolio analysis is emphasized. Real estate securities and the NASD regulations governing the direction participation limited license program are introduced. The student will be expected to spend one hour each week utilizing the SBPA computer laboratory. Prerequisites: BA 110, BA 306.

BA 325 **3 Credits**
FINANCIAL MANAGEMENT (3 + 0)
Intensive analysis of financial planning and control. Emphasis on both sources of funds and management of funds. Prerequisite: Acct 201, 202, Econ 201, 202, and BA 373. Accounting majors take Acct 260 instead of Acct 202.

BA 327 **3 Credits**
PRODUCT PROMOTION STRATEGIES (3 + 0)
Analysis of alternative persuasive communication strategies designed to promote consumer and/or industrial products or ideas. Topics include determination of communication objectives, selection of media, brand positioning, media buying, campaign implementation, and measurement of promotion effectiveness. Prerequisite: BA 343 recommended.

BA 331/JUST 331 **3 Credits**
BUSINESS LAW I (3 + 0)
A survey of basic institutions, litigation, judicial process, dispute resolution and preventive law; substantive

law of torts, agency, contracts and the uniform commercial code including sales, negotiable instruments and secured transactions.

BA 332/JUST 332 **3 Credits**
BUSINESS LAW II (3 + 0)
The law of business organizations, business crimes, employment, landlord-tenant, and real property.

BA 335 **3 Credits**
MANAGEMENT PRINCIPLES AND PRACTICES (3 + 0)
Examination of both the theory and techniques of the managerial process, with emphasis on the core functions of planning, organizing, and controlling. Contributions of the major schools covered: behavioral, classical and management science. Selected management concepts and models studies within system constructs. Prerequisite: Junior standing or permission of instructor.

BA 343 **3 Credits**
PRINCIPLES OF MARKETING (3 + 0)
Role of marketing in society and economy. The business firm as a marketing system, management of the firm's marketing effort. Prerequisites: Acct 201, 202 (Accounting majors take Acct 260 instead of 202), Econ 201 and 202.

BA 359 **3 Credits**
REGULATIONS OF INDUSTRY (3 + 0)
Effects of government regulation, economic policy and executive policy on private and public enterprise. Prerequisites: Econ 201 and 202.

BA 361 **3 Credits**
PERSONNEL MANAGEMENT (3 + 0)
Personnel practice in industry; analysis of labor-management problems; methods of administrations of recruiting, selecting, training, and compensating employees; labor laws and their application. Prerequisites: Econ 201, 202 and BA 335.

BA 373 **3 Credits**
ELEMENTARY STATISTICS FOR BUSINESS AND ECONOMICS (3 + 0)
An introduction to probability and statistics with emphasis on elementary models for business and economic applications. Descriptive probability concepts and simple applications in inferential statistics are introduced. It is expected that the student entering this course is proficient in college algebra and has an understanding of or is currently taking a course in elementary calculus. Prerequisite: Math 270. Corequisite: Math 272.

BA 376 **3 Credits**
MANAGEMENT INFORMATION SYSTEMS (3 + 0)
Theory, analysis, and design of information systems for management planning and control. Prerequisites: Math 270 and 272 or permission of instructor.

BA 377 **3 Credits**
OPERATIONS MANAGEMENT (3 + 0)
Management of the operations/production system with emphasis on quantitative analysis. Characteristics of systems, types of production systems, forecasting, planning and scheduling work, facility design and location, and selected topics in operations research will be covered. The student is expected to spend two hours each week utilizing the SBPA computer laboratory. Prerequisite: BA 373.

BA 379 **3 Credits**
INTERMEDIATE MARKETING MANAGEMENT (3 + 0)
Analysis of product, price, promotion and distribution decisions from a strategic marketing planning perspective. Emphasis is placed on marketing decision models applied to profit and non-profit organizations. Prerequisite: BA 343.

BA 410 **3 Credits**
REAL ESTATE INVESTMENT ANALYSIS (3 + 0)
An advanced treatment of real estate investment and feasibility analysis. Investment risks and an understanding of cash flow, tax sheltered income, and proceeds of sales are stressed. An analysis of the risks and rewards of alternative real estate investment opportunities, including vacant land, residential properties, and offices and industrial buildings is covered. Alternative forms of investment, including direct ownership, group ownership, real estate corporations, and real estate investment trusts are analyzed. The student will be expected to spend one hour hour week utilizing the SBPA computer laboratory. Prerequisites: BA 110, BA 324.

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 programs applicable to real estate problems. The student is expected to spend three hours each week utilizing the SBPA computer laboratory. Prerequisites: BA 110, BA 410.

BA 425 **3 Credits**
ADVANCED CORPORATE FINANCIAL PROBLEMS (3 + 0)
A consideration of corporate financial problems, planning and controls, and major functions performed by corporate financial managers. The student is expected to spend two hours each week utilizing the SBPA computer laboratory. Prerequisite: BA 325.

BA 426 **3 Credits**
FINANCIAL MARKETS AND INSTITUTIONS (3 + 0)
An examination of the economics and performances of the financial markets. Financial institutions, capital markets and money markets are studied, including the international dimensions. Prerequisites: BA 325, Econ 350.

BA 427 **3 Credits**
MULTINATIONAL BUSINESS FINANCE (3 + 0)
Introduction to foreign exchange, risk, and political risk. Long run investment, financing, and working capital management are covered. Prerequisites: BA 325 and Econ 350 or Econ 351, or permission of instructor.

BA 432/PS 432 **3 Credits**
RESEARCH METHODS (3 + 0)
Methodology and techniques of empirical research; scientific methods, design of research, sampling, use of

statistics, methods of data collection and analysis, including the use of computer data processing. Students will design and carry out a complete basic empirical study. The student is expected to spend three hours each week utilizing the SBPA computer laboratory. Prerequisite: BA 373 or equivalent.

BA 441 **3 Credits**
MARKETING PROBLEMS (3 + 0)

Approaches and problems of marketing decision-making under conditions of uncertainty. Planning and execution of a complete marketing program. The role of the marketplace, development of marketing plans; product and product line decisions; pricing decisions; channels of distribution; personal selling and advertising. Prerequisites: BA 343 and BA 379 or permission of instructor.

BA 445 **3 Credits**
MARKETING RESEARCH (3 + 0)

Influence of marketing research on the decision-making process; effect on the executive who must use it; uses and misuses. Emphasis on the cost versus the value of information for decision-making. Problem for formulation, exploratory research, research design, basic observations and sampling requirements, data analysis, interpretation, and reporting. Research projects conducted on actual marketing problems. Prerequisite: BA 343 or BA 373 or permission of instructor.

BA 448 **3 Credits**
PROPERTY MANAGEMENT (3 + 0)

Introduction to property management as a specialized activity. Emphasis is placed on managing residential, commercial, industrial, multi-residential, and special-purpose property. The general topics covered are real estate management process as it pertains to property management. The student is expected to spend one hour each week utilizing the SBPA computer laboratory. Prerequisite: BA 306 or permission of instructor.

BA 450 **3 Credits**
INVESTMENT MANAGEMENT (3 + 0)

Study of security analysis and money market instruments, with particular emphasis on personal investing. Technical analysis, capital markets, and current theory are reviewed. Application, rather than theory, is emphasized. Prerequisite: BA 325 or permission of instructor.

BA 454 **1-6 Credits**
BUSINESS ADMINISTRATION INTERNSHIP (0 + 3-0 + 18)

Work experience in an approved position with supervision and training in various phases of business. Prerequisites: Junior standing in a Business Administration major and permission of the department chairperson.

BA 461 **3 Credits**
LABOR-MANAGEMENT RELATIONS (3 + 0)

Study of labor-management relations from analytical viewpoints. Application of processes and methodology associated with collective bargaining and labor arbitration.

BA 462 **3 Credits**
ADMINISTRATIVE POLICY (3 + 0)

Organizing role in a dynamic society; decision problems in varying social, economic, and political environments. Prerequisites: BA 325, BA 335, BA 343, BA 373 and BA 377.

BA 464 **3 Credits**
ADVANCED PERSONNEL (3 + 0)

The course concerns the management of relations between the organization and its personnel; building and maintaining a productive work force, and providing job satisfaction. Specific topics include: Compensation Management, Selection and Placement, Training, and Performance Appraisal. Prerequisite: BA 361.

BA 469 **3 Credits**
LABOR RELATIONS LAW AND PUBLIC POLICY (3 + 0)

The course stresses the institutional framework in which the government structure of collective bargaining is cast. The course deals with major trends in the law of collective bargaining, the reasons for these trends, and their consequences on the overall functioning of collective bargaining. Prerequisite: BA 361 and BA 461.

BA 480/PS 480 **3 Credits**
ORGANIZATIONAL THEORY AND BEHAVIOR (3 + 0)

Literature of organizational theory; emphasis on theoretical concepts, organizational design, dynamics of formal and informal groups, communication in leadership, organizational development, organizational effectiveness, and social science research techniques. Prerequisites: Junior or Senior standing, BA 335, or permission of instructor.

BA 488 **3 Credits**
SOCIAL ISSUES IN BUSINESS (3 + 0)

A study of the rights and duties of businessmen in specific fields in the light of those principles which have graced the perennial moral tradition of our Western world. Dilemmas caused by the apparent conflict of such values as family well-being, personal integrity, and career advancement. Business involvement in urban problems.

BA 489 **3 Credits**
CORPORATE MANAGEMENT AND PLANNING (3 + 0)

Topics in planning, strategy selection and implementation, motivation, and control from the perspective of top management. The student is expected to spend one hour each week utilizing the SBPA computer laboratory. Prerequisite: BA 462 or permission of instructor.

BA 602 **3 Credits**
APPLIED STATISTICS (3 + 0)

An intermediate course in statistics concentrating on linear statistical models. Regression analysis of variance, and certain nonparametric procedures such as goodness-of-fit test and distribution-free alternatives to analysis of variance are included. Applications to management problems are illustrated. It is expected that the student entering this course has an understanding of elementary probability, statistics, matrix arithmetic, and computer systems. The student is expected to spend two hours each week utilizing the SBPA computer laboratory. Prerequisite: BA 373.

BA 608 **3 Credits**
LEGAL ENVIRONMENT OF BUSINESS (3 + 0)

The impact of law on business, public administration, and professional services. Various topics will be covered including legal processes, government regulation, labor-management relations, protection of consumers and debtors, and the law of torts. This course provides knowledge of law for MBA students, and does not count as meeting the minimum 30 credit requirement for the MBA degree.

BA 610/PADM 610 **3 Credits**
ORGANIZATIONAL THEORY AND BEHAVIOR (3 + 0)

A detailed study of organized behavior, including such concepts as leadership styles, authority, organizational change, among many others.

BA 612 **3 Credits**
MANAGEMENT SCIENCE (3 + 0)

A survey course in management science. A variety of management science (or operations research) tools are introduced with emphasis on the model building process and applications of mathematical models to managerial decision-making situations. A considerable portion of the course is devoted to mathematical programming including, in particular, linear programming. Other topics discussed are network models for project scheduling, decision models, and inventory control models. It is expected that the student entering this course has an understanding of elementary probability, statistics, calculus, matrix arithmetic, and computer systems. The student is expected to spend two hours each week utilizing the SBPA computer laboratory. Prerequisites: BA 110, BA 373.

BA 614 **3 Credits**
SYSTEMS THEORY AND ANALYSIS (3 + 0)

Theory and design of complex interactive systems; system philosophy, components of general systems theory, system design, principles, and methods. Survey of application of systems concept to business, economics, and public administration.

BA 616 **3 Credits**
LABOR LAW (3 + 0)

Integration of historical, political, social, economic, and legal threads underlying substantive labor law governing collective bargaining and labor management relations in the public and private sectors; occupational groups in education, hospitals as well as government and private industry considered.

BA 619 **3 Credits**
COMPUTER SIMULATION OF SYSTEMS (3 + 0)

Intensive study of simulation concepts and methods, introduction to DYNAMO and GPSS simulation languages. The course includes a survey of simulation applications in various disciplines. The student is expected to spend three hours each week utilizing the SBPA computer laboratory. Prerequisite: BA 602 or permission of instructor.

BA 621 **3 Credits**
SEMINAR MANAGEMENT INFORMATION SYSTEMS (3 + 0)

Selected topics in management information with emphasis on role of manager, the role of information in the decision-making process, establishing a uniform data base, design of information systems, and information retrieval. Prerequisite: Permission of instructor.

BA 624 **3 Credits**
HUMAN RESOURCES ADMINISTRATION (3 + 0)

Fundamental human resource topics dealing with problems in private and public sectors from an interdisciplinary viewpoint. Current and future development in selection and placement, classification and compensation, training and development, collective bargaining and managerial behavior and performance and effectiveness will be examined.

BA 630 **3 Credits**
SEMINAR IN MARKETING (3 + 0)

A survey of marketing institutions, systems, policies and practices. Review of marketing management concepts, marketing theory, and current marketing problems. Prerequisites: Post-graduate or graduate standing, BA 343 or permission of instructor.

BA 637 **3 Credits**
LABOR MANAGEMENT RELATIONS (3 + 0)

Analysis of collective bargaining process, labor agreements, administration of contracts; impact of public policy on management of labor relations in business and government; comparison of business and government labor relations.

BA 640 **3 Credits**
ADVANCED APPRAISING AND REAL ESTATE FEASIBILITY ANALYSIS (3 + 0)

A seminar course on appraising theory and feasibility analysis for development of an investment in real estate; real estate analysis related to current land-use practices and problems, and property development and utilization. Prerequisite: BA 323.

BA 644 **3 Credits**
SEMINAR IN REAL ESTATE DEVELOPMENT (3 + 0)

This is a comprehensive course that takes the student through all phases of the real estate development process. Topics covered include site selection, environmental impact, financing, design analysis, consumer analysis, risk and investment analysis, project control, and project continuity. The course is restricted to those students who have completed all prerequisites to admission to the MBA with emphasis in real estate or by special permission of instructor.

BA 652 **3 Credits**
INTERNATIONAL COMPARISON OF BUSINESS PRACTICES (3 + 0)

A comparative study of the business philosophy, organization, management style, and business-society interaction in the major industrial nations. Specific study of the business systems of several of the following nations: Canada, France, Great Britain, Japan, People's Republic of China, U.S.S.R., West Germany.

BA 655 **3 Credits**
ADMINISTRATIVE POLICY (3 + 0)

A case study course designed to provide students with an opportunity to utilize their knowledge in various functional areas in practical problem-solving situations. Prerequisite: Completion of MBA core courses.

BA 680 **3 Credits**
SEMINAR IN FINANCE (3 + 0)
Case studies in business finance: ratio analysis, pro-forma statements; short, intermediate and long term financing, capital budgeting, valuation. The student is expected to spend two hours each week utilizing the SBPA computer laboratory. Prerequisites: Accounting (financial and managerial), BA 325 or equivalent, or proficiency exam.

BA 681 **3 Credits**
MODERN INVESTMENT PRACTICE (3 + 0)
Theory of bond yields and prices; traditional investment practice which will include common stock investment, securities markets operation, stock selection, sources of investment information; portfolio management practices, and new approaches to investing. Prerequisites: BA 325 and BA 450.

Economics

ECON 201 **3 Credits**
INTRODUCTORY MACROECONOMICS (3 + 0)
Introduction to economic analysis and theory of national income; money and banking; public finance and taxation; economic systems. Prerequisite: Working knowledge of algebra needed.

ECON 202 **3 Credits**
INTRODUCTORY MICROECONOMICS (3 + 0)
Theory of prices and markets; income distribution; contemporary problems of labor, agriculture, public utilities, international economic relations. Prerequisite: Working knowledge of algebra needed.

ECON 321 **3 Credits**
INTERMEDIATE MICROECONOMICS (3 + 0)
Analysis of demand and supply under various market structures; cost and theory of production; factor pricing and theory of distribution; survey of welfare economics. Prerequisites: Econ 201, 202.

ECON 324 **3 Credits**
INTERMEDIATE MACROECONOMICS (3 + 0)
Concepts and measurement of income; analysis of aggregate demand and supply and their relation to prices, employment, and growth. Prerequisites: Econ 201, 202.

ECON 337 **3 Credits**
ECONOMIC DEVELOPMENT (3 + 0)
Theories of growth and development; problems of economic development illustrated with case studies; analysis of major policy issues. Prerequisites: Econ 201, 202.

ECON 350 **3 Credits**
MONEY AND BANKING (3 + 0)
Sources and uses of money and credit in modern society; regulation of money and credit and their impact on the economic welfare of the United States. Prerequisites: Econ 201, 202.

ECON 351 **3 Credits**
PUBLIC FINANCE (3 + 0)
Government taxation, borrowing, and spending; economic effects of taxation, influence of fiscal policy on economic activity. Prerequisites: Econ 201, 202.

ECON 360/HIST 360 **3 Credits**
MODERN ECONOMIC HISTORY (3 + 0)
A survey of the economic history of the modern era (1800 to present). Emphasis will be placed on Western Europe and the United States. Additional coverage will be given to Japan, the Soviet Union and one Third World Nation. Prerequisites: Hist 102 and Econ 201 or permission of instructor.

ECON 412 **3 Credits**
ECONOMETRICS (3 + 0)
Application of statistical methods in testing economic theory and estimating economic relationships. Emphasis on multiple regression analysis, serial correlation, and other problems and simultaneous equation methods. Selected applications in economics. Prerequisites: Econ 201, 202, BA 373.

ECON 415 **3 Credits**
URBAN AND REGIONAL ECONOMICS (3 + 0)
Economic issues examined at subnational level, such as states, regions, and cities and includes the location of economic activity in regions, relationship between regions, models of economic growth, the structure of regional economics, housing and land use issues, and urban and regional economic policy. Prerequisites: Econ 201, 202.

ECON 421 **3 Credits**
LABOR ECONOMICS (3 + 0)
Labor market analysis; employment and unemployment, wage ranges, structure and composition of the labor force; economic aspects of unionism; labor legislation; and social insurance. Prerequisites: Econ 201, 202.

ECON 423 **3 Credits**
COMPARATIVE ECONOMIC SYSTEMS (3 + 0)
Contrasts structure, institutions, and dynamics of selected private enterprise, collectivist, and underdeveloped economics. Prerequisites: Econ 201, 202.

ECON 425 **3 Credits**
HISTORY OF ECONOMIC THOUGHT (3 + 0)
Economic thought from the physiocrats to the present, classical and neoclassical theory, exponents and critics; contemporary development in economic theory. Prerequisites: Econ 201, 202, and three credits of upper-division courses in economic or other social sciences.

ECON 429 **3 Credits**
BUSINESS FORECASTING (3 + 0)
Analysis of fluctuations in economic activity; theories of business fluctuations; methods of control and forecasting. Prerequisites: Econ 201, 202.

ECON 430 **3 Credits**
MATHEMATICS FOR ECONOMISTS (3 + 0)
Application of theorems from calculus, matrix, algebra and probability theory in various areas of economics such as linear programming, input/output analysis, game theory, demand theory, production theory, and expected utility theory. Prerequisites: Econ 321, 324 and Math 272.

ECON 435 **3 Credits**
ECONOMICS OF RESOURCES (3 + 0)
Concepts of resources, interaction among resources, industrialization and economic development; theories

and problems of conservation; emphasis on Alaska. Prerequisites: Econ 201, 202.

ECON 454 **1-6 Credits**
ECONOMICS INTERNSHIP (0 + 3-0 + 18)
Work experience in an approved position with supervision and training in various phases of applied economics or economic research. Prerequisites: Junior standing as an Economics major; Econ 321 and Econ 324; and permission of department chairperson.

ECON 463 **3 Credits**
INTERNATIONAL ECONOMICS (3 + 0)
Pure theory of international trade; comparative cost, terms of trade, and factor movements, international disequilibrium; balance of payments and its impact on national economy, capital movement, economic development through international trade. Prerequisites: Econ 201 and 202.

ECON 607 **3 Credits**
PUBLIC FINANCE AND TAXATION (3 + 0)
Role of government expenditures in light of welfare economics, direction, and development of expenditures; types of taxes, their distributional and allocative effects; pricing policies in government enterprises; compensory finance; the public debt. Prerequisite: Permission of instructor.

ECON 625 **3 Credits**
ECONOMICS AND PUBLIC POLICY (3 + 0)
An examination of economics in relation to public policy, both as a determinant of policy and a tool of administration. Prerequisites: Econ 201, 202.

ECON 626 **3 Credits**
ECONOMICS FOR PLANNERS (3 + 0)
Concepts and issues of delineating regions, policy areas and functional economic areas. Regional income and wealth accounting. Determination of economic goals and objectives. Economic base analysis. Regional growth models. Economics and land use. Economics and social-cultural change. Economics and the environment. Prerequisites: Econ 201 and 202.

ECON 634 **3 Credits**
PETROLEUM ECONOMICS (3 + 0)
Economics of petroleum exploration and extraction; review of public policies governing petroleum industry, import policies, tax concessions, etc. Prerequisite: Permission of instructor.

ECON 640 **3 Credits**
ECONOMICS OF TRANSPORTATION (3 + 0)
Economic aspects of the transportation industry with special emphasis on problems of regulation and public policy; analysis of intermodal change. Prerequisite: Permission of instructor.

ECON 688 **3 Credits**
SEMINAR IN ECONOMIC RESEARCH (3 + 0)
Methods of economic research used in analyzing specific, assigned topics. Discussion of problems encountered, results obtained. Report and formal paper required. Prerequisite: Permission of instructor.

Planning

PL 620 **3 Credits**
ADMINISTRATIVE INTERNSHIP (3 + 0)
Students may take this course to obtain specialization in specific areas of planning. This shall consist of part-time work in approved federal, state, local, and private agencies, to be supervised by a senior employee of that agency in cooperation with a faculty advisor.

PL 634 **3 Credits**
RESOURCE POLICY ADMINISTRATION (3 + 0)
Consideration of the concepts of conserving and developing natural resources. The course includes the translation of concepts into public policy, interrelationships and coordination of natural resources among principal state and federal resource administration agencies; the development and ecology of natural resources and interest groups affecting resource development.

PL 650A **3 Credits**
COMPREHENSIVE PLANNING AND APPLIED SCIENCE (3 + 0)
Interrelationship of physical, economic and social data base (physical geography, hydrology, climatology, soil, slope, resources evaluation and economy, transportation, energy sources, social organizations, demography, education, health, etc.). Analysis of interrelationships and application of new methods of comprehensive planning to arrive at more suitable forms of spatial organization and systems. Special attention given to unique aspects of planning in Alaska.

PL 650B **3 Credits**
COMMUNITY/REGIONAL PLANNING I (3 + 0)
Introduction to the process of modern planning, planning theories, principles and methodologies. Land use planning in rural areas and metropolitan centers. Planning regulations and enforcement, social planning methods, political decisions, and procedures for public and private implementation of plans. Prerequisite: PL 650A.

PL 650C **3 Credits**
COMMUNITY/REGIONAL PLANNING II (3 + 0)
Introduction to systematic analysis of planning problems and their solution. Emphasis placed on accumulation, evaluation, and use of information, relationship between planners' recommendations and legislative action through analysis and review of how decisions are made. This will involve a class project practicum in community and/or regional planning. Prerequisites: PL 650A, PL 650B.

PL 661 **3 Credits**
THE SOCIAL ENVIRONMENT OF PLANNING (3 + 0)
An examination of the social context in which planning takes place. The role of government in determining the nature of the planning process. The impact that the public can have on planning in different political systems. Organizations of political and social groups to participate effectively in the planning cycle. The dormant role of social groups that do not participate.

PL 662 **3 Credits**
LEGAL ISSUES IN PLANNING (3 + 0)
The course focuses on three major areas of law: 1) constitutional issues (due process, property rights, civil

rights); 2) environmental legislation and state and federal planning laws; and 3) formulation of laws directed to physical and social issues.

PL 663 **3 Credits**
DESIGN CRITERIA AND COST CONSIDERATION IN PLANNING (3 + 0)
This course, to be team taught, will examine design considerations, life-cycle costing, design economy; teaching team will include architect/planner/government administrator/construction economist/engineer.

PL 668 **1 Credit**
SEMINAR: TOPICS IN PLANNING (1 + 0)
Various subjects dealing with planning process, implementation, management of resources, etc., will be announced in schedules.

Public Administration

PADM 601 **3 Credits**
PUBLIC ADMINISTRATION IN THE CONTEMPORARY SOCIETY (3 + 0)
This course is an overview of the field of public administration, including the political, social and economic environments of public policy and administration.

PADM 603 **3 Credits**
MANAGEMENT ANALYSIS (3 + 0)
Introduction to organizational and systems analysis, systems theory, information systems, procedure analysis, management planning; management problem solving.

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 three hours each week utilizing the SBPA computer laboratory. Prerequisite: Introductory statistics.

PADM 610/BA 610 **3 Credits**
ORGANIZATIONAL THEORY AND BEHAVIOR (3 + 0)
Role of the administrator; theories of complex organizations and their administration; administrative leadership; ethics. A detailed study of organized behavior, including such concepts as leadership styles, authority, organizational change, among many others.

PADM 617 **3 Credits**
PUBLIC SECTOR PRODUCTIVITY (3 + 0)
Application of technology as well as behavioral and organization theory to improve productivity in public organizations. Special attention will be given to problems of measurement. Prerequisite: PAdm 610.

PADM 618 **3 Credits**
ACCOUNTABILITY, LAW AND THE ADMINISTRATIVE PROCESS (3 + 0)
The problems of maintaining a responsive bureaucracy subject to democratic controls; implications of administrative due process of law; selected case studies in state and federal administration.

PADM 624 **3 Credits**
HUMAN RESOURCES ADMINISTRATION (3 + 0)
Fundamental human resource topics dealing with problems in private and public sectors from an interdisciplinary viewpoint. Current and future development in selection and placement, classification and compensation, training and development, collective bargaining and managerial behavior, performance, and effectiveness will be examined.

PADM 628 **3 Credits**
ADMINISTRATION OF FINANCIAL RESOURCES (3 + 0)
Public financial organization, problems of financial management in government units, revenue sources; budgetary planning and control, methods of debt financing and intergovernmental relationships. Prerequisite: Acct 201 or equivalent.

PADM 630 **3 Credits**
ADMINISTRATIVE PROBLEMS IN ALASKA (3 + 0)
Rural and small city administration; impact of government on the economy; fiscal management policies; technical assistance, loans, subsidies, contracts, public enterprise; resource administration.

PADM 635 **3 Credits**
POLICY ANALYSIS AND PROGRAM EVALUATION
Critical examination and application for approaches to policy analysis and program evaluation for the public sector.

PADM 659 **3 Credits**
ADMINISTRATIVE POLICY SEMINAR (3 + 0)
Management of the total organization. Policy formulation, strategy selection and implementation. Corporate organization and control. Prerequisite: Completion of MPA core courses or permission of instructor.

PADM 689 **3 Credits**
DOCTORAL SEMINAR IN PUBLIC ADMINISTRATION (8 + 0)
Scope and method of public administration; historical and philosophical perspective; role of government bureaucracies in society. The course is part of the joint University of Alaska, Anchorage/University of Southern California doctoral program. Students must be admitted to the program to enroll in the class.

COLLEGE OF NURSING AND HEALTH SCIENCES

Faculty

Dean: Betty L. Hodo (Acting), Associate Professor
Associate Dean-Health Sciences: Jan W. McLaurin, Associate Professor
Associate Dean-Nursing: Susan Littell (Acting), Assistant Professor

School of Health Sciences

Professors: William J. Mills, Jr., Bernard Segal
Associate Professors: Dennis Kelso, Theodore A. Mala
Assistant Professor: Robert McKnight

School of Nursing

Professor: Effie Graham
Associate Professors: Tina DeLapp, Annabelle Moore, Gwendolyn Otte
Assistant Professors: Constance B. Bertholf, Patricia W. Brown, Bernice Carmon, Jill Janke, Robert McKnight, Janet Mischler, Kate Morris, Gail P. Moses, Jackie Pflaum, Nancy Sanders, Dianne Toebe, Marcia Watson, Daryl Young
Instructor: Susan Jones

Center for Alcohol and Addiction Studies

Director: Jan W. McLaurin (Acting)

Center for High Latitude Health Research

Director: William J. Mills, Jr.

High School Preparation

The following high school courses are recommended in preparation for admission to the College of Nursing and Health Sciences:

Algebra
General Chemistry
Anatomy and Physiology or General Biology
Verbal and Written Communication Skills

School of Nursing

The mission of the School of Nursing is to educate students for productive citizenship, personal growth, and professional nursing practice. Undergraduate students are provided both the theory and clinical base to assess, plan, implement, and evaluate health care needs and nursing actions relative to the prevention of illness, the promotion and restoration of health for individuals and groups in both institutional and community health settings. Instruction and clinical experiences are designed to maximize the student's breadth of understanding of the unique health care needs of various age and socio-cultural groups. The program is designed to reflect Alaskan health care needs and health care delivery systems, although the graduate is prepared for beginning practice positions in other health care delivery settings as well. The baccalaureate program is accredited by the Alaska Board of Nursing and the National League for Nursing. Graduates of the program are eligible to write the National Council Licensure Examination for licensure as a Registered Professional Nurse in any of the 50 states. The program also provides students with the academic base for graduate study in nursing.

Graduate studies at the master's level place a primary emphasis upon advanced professional nursing practice, theory, research, and health care delivery systems. Students may develop a specialized practice focus in Community Health, Psychosocial Nursing, or as a Family Nurse Practitioner. Master's level studies provide a foundation for doctoral study.

School of Health Sciences

The mission of the School of Health Sciences is the provision of instructional, research and service programs that focus primarily on human health and health care delivery systems. An interdisciplinary approach is promoted in these programs.

The Health Science baccalaureate program prepares students for entry-level to mid-level management positions in a variety of health and health-related agencies. The program also offers

the opportunity for specialization in the area of substance abuse. The substance abuse curricula is approved by the Alaska Alcoholism and Drug Abuse Counselor Certification Review Board. Students completing this curricula will be eligible to apply for substance abuse counselor certification.

The program provides students with the academic base for graduate study in Health and health-related fields. Built in flexibility allows students the opportunity to design a program through which they can develop the academic base to pursue graduate study in other fields as well.

The program also offers students in other disciplines the opportunity to complete a minor in either Health Science or Substance Abuse. Many post-baccalaureate students will find the curricula pertinent for continued professional development.

Two research centers within the School address relevant Alaskan issues. These are the Center for Alcohol and Addiction Studies, and the Center for High Latitude Health Research.

Center for Alcohol and Addiction Studies

The Center for Alcohol and Addiction Studies represents the University's endeavor to address the problem of substance use and abuse in the State of Alaska. Established in 1972 by the Board of Regents at the request of the Governor's Advisory Board on Alcoholism and by petition from many prominent Alaskans, the Center is concerned with helping to alleviate alcohol and drug abuse in Alaska through the development and implementation of educational, training, research, and public service programs.

The Center's educational programs are designed to provide an understanding of addictive substances and processes, treatment and prevention concepts and methods, and contemporary issues and concerns in the field of substance abuse. The training activities undertaken by the Center are designed to provide opportunities for the acquisition and development of skills in substance abuse counseling, treatment, prevention methods, program management, and administration. The Center's training efforts broaden the scope of the Center's activities and facilitate programs emphasizing a health science perspective.

The Center's programs of applied, basic, and evaluative research are designed to expand the body of knowledge concerning the nature and scope of the alcohol and drug abuse problems in Alaska, and to evaluate the effectiveness of current prevention and treatment methods and approaches.

The Center also conducts a range of public service projects that include conferences and workshops for both the general public and health-related professionals. Consultation services in the areas of program planning development, implementation, administration, and evaluation are also available.

Center for High Latitude Health Research

The Center's research projects represent a medical investigation of health problems frequently encountered in the cold environment at sea level and at high altitude. Research and field activities focus on the prevention, diagnosis, and treatment of frostbite, hypothermia, near drowning, and high altitude sickness. Project members work closely with rescue and transport of victims of the above. The project utilizes Mount McKinley/Denali as a natural laboratory for studies related to altitude, cold injury, and trauma. Biofeedback is utilized as a prevention and treatment modality for frostbite. Experimental animal physiology studies investigate environmental extremes where a variety of resuscitative and treatment techniques are employed.

Admission

BACHELOR OF SCIENCE—HEALTH SCIENCE

Refer to admission requirements as shown on pp. 29-35.

BACHELOR OF SCIENCE—NURSING SCIENCE

Admission requirements are the same for all bachelor's degree programs. However, admission to the University does not guarantee entry into clinical nursing courses. There are a limited number of seats available in each clinical course. Selective admission is based upon the students' relative standing on the following minimum requirements:

1. 2.0 cumulative GPA and at least a "C" in all Nursing courses;
2. Three letters of reference;
3. Interview with faculty;
4. Recent negative tine test or chest X-ray;
5. Rubella Titer;

6. Successful completion of prerequisite courses;
7. Cardiopulmonary Resuscitation Card.

Advanced placement will be based upon evaluation of previous college work and/or test scores. Official transcripts and syllabi of completed nursing courses should be forwarded to the School of Nursing. Some basic science courses may not be accepted in transfer if they are more than ten years old.

Satisfactory Progress

In order to progress within the School of Nursing, students must have a grade of "C" or better in each required Nursing course and must maintain an overall GPA of 2.0 or better.

Credits by Examination

The University offers an opportunity to earn credits by examination in a number of courses. Each student is individually evaluated on both theoretical and clinical competency. Additional information is available upon request.

Registered Nurse Option (School of Nursing)

Registered nurses returning for a degree must fulfill the same academic requirements for the program as do generic students. "RN Only" sections within the upper-division clinical major are designed to build upon the RN's basic preparation and experience and to facilitate progress in meeting program objectives, through a combination of credit by examination and clinical course work. Previous college credits may be transferred and credit by examination options are available for some general education courses. The goal of the School of Nursing is that each graduate demonstrates excellence in knowledge and skill in professional nursing.

Expenses

Students enrolled in the School of Nursing clinical courses will have expenses in addition to regular tuition and fees. These expenses include a $10 per semester clinical course fee. Books, uniforms and instruments are variable additional costs. Students are expected to arrange their own transportation to class and clinical assignments.

BACHELOR OF SCIENCE—HEALTH SCIENCE

1. Complete the General University Requirements for a baccalaureate degree as shown on pp. 67-74. Within the General Education Degree Requirements as shown on pp. 68-69, health science majors must complete the following courses:

	Credits
BA 110—Computer Concepts in Business	3
AS 300—Elementary Statistics	3
Biol 111—Human Anatomy and Physiology I	4
Biol 112—Human Anatomy and Physiology II	4
Psy 111—Introduction to Psychology	3
Soc 101—Introduction to Sociology	3

2. Required Support Courses. Complete all courses:

Chem 120—Survey of Chemistry	4
Chem 121—Elementary Biochemistry	4
Anth 202—Cultural Anthropology	3
Psy 265—Psychology of Abnormal Behavior	3
Psy 275—Social Psychology	3
BA 335—Management Principles and Practices	3
Soc 343—Sociology of Deviant Behavior	3
Soc 407—Formal Organizations	3
Econ 202—Introductory Microeconomics	3

3. Health Science Core Courses. Complete all courses:

HS 231—Introduction to Health Science	3
HS 301—Effective Communication for Health Professionals	3
HS 380—Research Methods in Health and Human Services	3
HS 430—Introduction to Epidemiology	3
HS 462—Issues in Health Care	3
HS 483—Society and Substance Abuse	3

4. Health Science Electives. Complete 12 credits choosing from:

HS 203—Normal Nutrition	3
NS 232—Introduction to Alaskan Personal Health	3
HS 303—Preventive and Therapeutic Nutrition	3
HS 316—Pathophysiology and Therapeutics I	3
HS 317—Pathophysiology and Therapeutics II	3
HS 381—Research Strategies in Health Settings	3

HS 420—Client Education in Health Care 2
HS 480—Psychology of Addictions 3
HS 481—Treatment of Substance Abusers 3
HS 484—Alcohol Policy and Prevention . . 3
HS 486—Alcohol: Transcultural Issues . . . 3
HS 487—Substance Abuse and the Family 3

5. General Electives. Complete 23 credits: These electives must be taken outside of the School of Health Sciences 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.

BACHELOR OF SCIENCE—NURSING SCIENCE

1. Complete the General University Requirements and the General Education Degree Requirements for a baccalaureate degree as shown on pp. 67-74. To be included among these requirements are:

	Credits
Engl 111 and 211, 213, or 311	6
Spch 111	3
AS 300 or 307—Statistics	3
Biol 111 and 112—Human Anatomy and Physiology I & II	8
Chem 120 and 121—Survey of Chemistry and Biochemistry	8
Psy 150—Human Development	3
Biol 240—Introductory Bacteriology	4
Reasoning Skills—General Education Degree Requirement (see p. 68)	3
Social Science—General Education Degree Requirement (see pp. 68-69)	3
Social Science Elective	3
Humanities—General Education Degree Requirement (see p. 68)	6
Arts—General Education Degree Requirement (see p. 68)	3

2. Complete support courses for the Nursing Science Major:

BA 335—Management Principles and Practices 3
PS/BA/432 or Soc/PS 352 or HS 380—Research Methods 3
HS 203—Normal Nutrition 3
HS 316 and 317—Pathophysiology and Therapeutics I and II 6

3. Complete required courses for the Nursing Science Major:

NS 110 (generic students only)—Nursing as a Personal and Social Response . . . 3
NS 300 (RN students only)—Transition in Nursing Practice 3
NS 301 and 302—The Well/At Risk Client I and II 18
NS 303 and 401—Nursing in Health Disruptions I and II 18
NS 402—Concentration in Professional Nursing Practice 6-9
Upper-Division Nursing Electives (300 level or higher) 3-10
Electives (must be in Humanities, Social Sciences, Mathematics, or Science—see your advisor for additional limitations) to total 128

4. At least 48 upper-division credits are required to graduate.
5. A total of 128 credits is required for the degree.

MINORS

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

HS 483 Society and Substance Abuse . . . 3

12 credits from the following courses:

HS 480—Psychology of Addictions 3
HS 481—Treatment of Substance Abusers 3
HS 484—Alcohol Policy and Prevention . . 3
HS 486—Alcohol: Transcultural Issues . . . 3
HS 487—Substance Abuse and the Family 3

A minor in **Health Science** requires the following 15 credits:

HS 231—Introduction to Health Sciences. 3
HS 301—Effective Communication for Health Professionals 3
HS 380—Research Methods in Health & Human Services 3
HS 430—Introduction to Epidemiology . . 3
HS 462—Issues in Health Care 3

MASTER OF SCIENCE—NURSING SCIENCE

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 1 for admission to the graduate program in the Fall semester and October 1 for admission to the graduate program in the Spring semester.

Family Nurse Practitioner component:

Credits

Semester I
- NS 620—Nursing Research Methods. . . . 3
- NS 621—Nursing Theory I 3
- NS 623—Applications in Nursing Research 1
- NS 626—Principles of Epidemiology 2
- OR
- NS 625—Biostatistics for Health Professionals. 2
- NS 660—Family Nurse Practitioner I 4

Semester II
- NS 622—Nursing Theory II 2
- NS 642—Professional Nursing in Perspective 3
- NS 661—Family Nurse Practitioner II 6
- NS 699—Thesis 2
- NS 610—Pharmacology for Primary Care 2

Semester III
- NS 662—Family Nurse Practitioner III. . . . 6
- NS 699—Thesis 3
- Elective. 3
- NS 663—Family Nurse Practitioner—Clinical Concentration. 3
- (Post graduate preceptorship—one month full-time clincial 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 625—Biostatistics for Health Professionals. 2
- NS 623—Applications 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 Methods. . . . 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—Intermediate 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

Health Science

HS 203 **3 Credits**
NORMAL NUTRITION (3 + 0)
Basic principles of nutrition with emphasis on application to the health professions. Chemical nature, food sources and physiological functions of nutrients, nutritional needs during various life stages, and contemporary issues are covered. Prerequisites: Human Anatomy and Physiology. Chemistry prior to concurrent. Biochemistry or 100 level nutrition class preferred or permission of instructor.

HS 224 **3 Credits**
SUBSTANCE ABUSE COUNSELING I (3 + 0)
Introduction to counseling techniques and practices for substance abuse counselors and for persons interested in the psychological aspects of substance abuse. This course is intended primarily for paraprofessionals seeking certification.

HS 231 **3 Credits**
INTRODUCTION TO HEALTH SCIENCES (3 + 0)
Introductory survey course for majors and non-majors 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 301 **3 Credits**
EFFECTIVE COMMUNICATION FOR HEALTH PROFESSIONALS (3 + 0)
Principles and techniques of effective communication and interpersonal skills for individuals in health-related fields. Content areas include the influence of perception on communication, verbal and non-verbal communication, assertive behavior, negotiating and interacting with handicapped communicators.

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 316 **3 Credits**
PATHOPHYSIOLOGY AND THERAPEUTICS I (3 + 0)
A basic conceptual study of disease and the resultant abnormal functioning. Key concepts are utilized to assist the student to develop an understanding of the basic physiologic mechanisms of disease and of the approaches to the therapeutic management of affected clients. Prerequisite: Grade of "C" or better in Biol 111 and 112 or equivalent.

HS 317 **3 Credits**
PATHOPHYSIOLOGY AND THERAPEUTICS II (3 + 0)
A basic conceptual study of disease and the resultant abnormal functioning. Key concepts are utilized to assist the student to develop an understanding of the basic physiologic mechanisms of disease and of the various approaches to the therapeutic management of affected individuals. Prerequisite: Grade of "C" or better in HS 316.

HS 348 **1 Credit**
INTERVENTIONS: IMPACTING SUBSTANCE ABUSE IN ALASKA (1 + 0)
A forum for the examination of current perspectives on alcoholism and drug abuse. Areas to be covered include: treatment considerations and services for women; multicultural issues and ideas in treating alcoholism and other drug problems; therapeutic approaches for helping professionals; current information on popularly used drugs; and impact of Alaska's current social and legal controls on alcohol and other drugs. Prerequisite: Sophomore standing or above or permission of instructor.

HS 380 **3 Credits**
RESEARCH METHODS IN HEALTH AND HUMAN SERVICES (3 + 0)
An introduction to research methods. Problem formulation, research design, data collection, and data analysis. The course will focus on research in community health care and human service settings and include program evaluation methods.

HS 381 **3 Credits**
RESEARCH STRATEGIES IN HEALTH SETTINGS (A PRACTICUM) (3 + 0)

This course will provide practical qualitative field research, data analysis, and report preparation experience in health care settings. It is intended to support skills and interests in policy and program issues and to result in major papers, research proposals, and theses. Prerequisite: PS/BA/JPC 432 or Soc 352 or HS 380 (or concurrent).

HS 420/NS 420 **2 Credits**
CLIENT EDUCATION IN HEALTH CARE (2 + 0)

Emphasizes principles, methods, materials, resources in client education, examines psychosocial and cultural determinants of health behavior, explores organizational, societal and professional issues influencing client education.

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 480/PSY 480 **3 Credits**
PSYCHOLOGY OF ADDICTIONS (3 + 0)

The intent of this course is to provide a forum which will explore approaches to the understanding of alcohol and drug abuse, the problems which both can create, and methods of treatment prevention. Prerequisites: Two psychology courses.

HS 481/PSY 481 **3 Credits**
TREATMENT OF SUBSTANCE ABUSERS (3 + 0)

To strengthen knowledge of substance use and abuse and of substance counseling skills regarding the principles and practices of treatment. Techniques of instruction will include lectures, group discussions, resource persons, and independent guided study. Prerequisite: HS/Psy 480.

HS 483 **3 Credits**
SOCIETY AND SUBSTANCE ABUSE (3 + 0)

Critical examination of social aspects of substance abuse and addictions. Topics will include public policy, community organization and standards, theories of treatment, current research policy and program evaluation, and linkages to health, social service, and social control problems.

HS 484 **3 Credits**
ALCOHOL POLICY AND PREVENTION (3 + 0)

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 **3 Credits**
ALCOHOL: TRANSCULTURAL ISSUES (3 + 0)

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 **3 Credits**
SUBSTANCE ABUSE AND THE FAMILY (3 + 0)

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.

HS/NS 625 **2 Credits**
BIOSTATISTICS FOR HEALTH PROFESSIONALS (2 + 0)

Principles of statistical reasoning and quantitative skills for analyzing health-related 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 clinical practice and research questions are stressed. This course is designed to enhance rather than substitute for statistical knowledge gained at the undergraduate level. Prerequisite: Graduate standing or permission of instructor.

HS/NS 626 **2 Credits**
PRINCIPLES OF EPIDEMIOLOGY (2 + 0)

An introduction to the principles and methods of epidemiologic investigations and their application in the health sciences. Major topics include etiological factors of disease and injury, the distribution of health problems within populations, levels of prevention, and the concept of risk. The design of retrospective, cross-sectional, and prospective studies are examined. Clinical applications within nursing, medicine, pharmacy, social work, nutrition and health care administration are emphasized. Prerequisite: Graduate standing or permission of instructor.

HS/NS 627 **2 Credits**
INTERMEDIATE EPIDEMIOLOGY AND BIOSTATISTICS (2 + 0)

A joint continuation of HS/NS 625 and HS/NS 626, with more emphasis on analytical skills. Lectures and a series of problem sets illustrate the quantification of risk, including relative risk, odds ratio, standardized mortality ratio, life tables, and person-years. Other topics include re-

gression and the adjustment of mortality and morbidity rates. Prerequisites: HS/NS 625 and HS/NS 626.

HS 644 **2 Credits**
RESEARCH IN HEALTH BEHAVIOR (2 + 0)

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. Prerequisite: Graduate standing or permission of instructor.

HS 646 **2 Credits**
HEALTH EDUCATION (2 + 0)

Theory and method 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 **2 Credits**
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.

Nursing Science

NS 110 **3 Credits**
NURSING AS A PERSONAL AND SOCIAL RESPONSE (3 + 0)

A seminar course reviewing the evolution of nursing, the variety of present and future nursing roles, the agencies, and the organizations influencing nursing education and practice, and the levels of nursing education available. Other issues such as personal choices and needs for entering nursing, social and cultural aspects of pursuing a career, nursing in an evolving health care system and additional areas of student interests are discussed.

NS 300 **3 Credits**
TRANSITIONS IN NURSING PRACTICE (3 + 0)

Seminar that provides the RN student with an in-depth exploration and analysis of increasing expectations in professional nursing practice. The discipline of nursing, professional issues and trends, and selected nursing research will be examined with a historical and theoretical context. Prerequisite: RN standing.

NS 301 **9 Credits**
THE WELL/AT RISK CLIENT I (5 + 12)

A two-semester sequence of theory and practice applications. The nursing process is applied to care of essentially well and at-risk client systems. Skills in collecting and assessing health data through interviewing, history taking, and selected health assessment procedures will be learned. Further emphasis will be on planning, implementing, and evaluating nursing care for the maintenance and promotion of health, utilizing a system framework. Role socialization occurs through the application of theory and the nursing process in traditional and non-traditional settings and class activities. Student experience is gained in community settings. Prerequisites: Admission to upper-division clinical placement in the nursing program, completion of lower-division requirements.

NS 302 **9 Credits**
THE WELL/AT RISK CLIENT II (5 + 12)

A two-semester sequence of theory and practice applications. This is the second semester of a two-semester sequential course of applied theory and skills, which focuses on health promotion in the essentially well and at-risk client system. Students utilize the conceptual framework and nursing process (assessment, planning, implementation, evaluation) to organize their clinical practice. An in-depth focus on the family and community is emphasized. Prerequisite: NS 301.

NS 303 **9 Credits**
NURSING IN HEALTH DISRUPTIONS I (5 + 12)

Application of the nursing process to the management of client systems experiencing health disruptions. The course utilizes the framework of the integrated curriculum and systems theory to assist students to develop the knowledge and skills necessary for the nursing management of individual, family, and aggregate client systems in need of health restoration and health reorganization. The implementation of the variable role components of the professional nurse is emphasized. Clinical experience is focused on the nursing management of clients during the acute phase of a health disruption. Prerequisites: HS 203, BA 335, NS 302, research methods, and grade of "C" or better in HS 317.

NS 311 **2 Credits**
THE CHILD AND ILLNESS (1 + 3)

This course explores the theory related to the experience of illness and/or hospitalization for the child and his family. Focus is directed to planning, implementing and evaluating nursing interventions which minimize trauma and restore health function to the child and his family. The student will follow a pediatric client through illness and/or hospitalization. Prerequisites: NS 302, HS 317.

NS 312 **2 or 3 Credits**
NURSING INTERVENTIONS FOR THE CRITICALLY ILL ADULT (2 + 0) (2 + 1)

Designed for the student who is interested in the specialty area of critical care nursing, this course provides the student the opportunity to focus learning on the specific needs of the critically ill adult and on the role of the critical care nurse. Case studies are used to assist the student to apply the nursing process (using the FANCAS format) to the management of the critically ill adult. Emphasis is placed on promoting the movement of the client

from critical illness to recovery and independence. Prerequisites: HS 317 and NS 302 for 2 credit option; NS 303 for 3 credit option.

NS 315 **3 Credits**
TRANSCULTURAL NURSING (3 + 0)

Examination of sociocultural factors that influence health, illness and health-related human behavior. Students are introduced to concepts that place health-related behavior within a cultural context and to the elements of a culturally sensitive approach to clients seeking professional nursing care services. Prerequisite: NS 301 or RN licensure.

NS 318 **2 Credits**
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 320 **2 Credits**
NURSING CARE DURING TRANSPORT (2 + 0)

Principles and theory underlying care of clients being transported by ground or air transportation including transfer from a field or hospital situation to a critical care unit. Emphasis is on individualization of care via application of the nursing process. Topics include pre-transport stabilization, equipment considerations, altitude physiology, transport stresses, safety, legal implications, communication and post-transport evaluations. Prerequisites: NS 303 or RN licensure and concurrent enrollment in upper-division clinical nursing major.

NS 333 **2 Credits**
NURSING CHILD ASSESSMENT TRAINING (2 + 0)

Four assessment scales including examination of the infant's sleep patterns, behaviors, interactions with care givers and the environment. The content involves learning new nursing child assessment guidelines which can easily be included in current health practices. Specifically, classes offer students opportunities to learn four assessment scales: Nursing Child Assessment of Sleep/Activity, Nursing Child Assessment Feeding Scale, Nursing Child Assessment Teaching Scale, and Home Observation for Measurement of the Environment. Prerequisite: Registered Nurse or permission of instructor.

NS 401 **9 Credits**
NURSING IN HEALTH DISRUPTIONS II (5 + 12)

A continuation of the application of the nursing process to the management of client systems experiencing health disruptions. The course utilizes the framework of the nursing process and systems theory to assist students to develop the knowledge and skills necessary for the nursing management of individuals, family, and aggregate client systems in need of health restoration and/or reorganization. The implementation of the variable role components of the professional nurse is emphasized. Clinical experience is focused on the nursing management of health disrupted clients in primary need of tertiary health care. Prerequisite: NS 303.

NS 402 **6-9 Credits**
CONCENTRATION IN PROFESSIONAL NURSING PRACTICE (1 + 15-24)

Integration and synthesis of knowledge and skill competencies basic to professional nursing practice. Emphasis is on adjustments to realities of practice situations. Clinical sites selected in relation to individual student interests and learning needs. Prerequisite: NS 401.

NS 405 **2 Credits**
ROLE OF THE NURSING MANAGER (2 + 0)

Expansion of student's knowledge of leadership and management, with a specific application to Nursing. Emphasis will be placed on the management of patient care and nursing management roles in a variety of settings. The course will utilize a case method approach. Prerequisites: BA 335 and NS 302.

NS 407 **3 Credits**
PHARMACOLOGY IN NURSING (3 + 0)

In depth pharmacology course that includes consideration of prescription and non-prescription drugs by client systems at various developmental levels and with varying health status. Within the framework of the nursing process, students develop knowledge and skills to safely administer drugs, to assist clients to develop decision making skills to enable management of drug regimens independently, to evaluate client responses to drug therapy and to prevent and/or manage toxicity. Prerequisites: HS 317 and completion of or concurrent enrollment in NS 303 or RN licensure.

NS 410 **2 Credits**
ONGOING DIMENSIONS AND DIRECTIONS OF NURSING (2 + 0)

An ongoing exploration of student selected trends, issues and problems in nursing and nursing education. The course is designed to build on the students' recognition of factors influencing the evolution of nursing that were introduced in NS 110 and refined throughout their program of study. Nursing organizations and legal responsibilities are further explored. Prerequisites: Senior standing in School of Nursing or successful completion of NS 110 and RN licensure.

NS 412 **3 Credits**
CARE OF VICTIMS OF FAMILY VIOLENCE (3 + 0)

An overview of family violence including medical, physical and emotional abuse and neglect of target groups at risk. The focus will be on understanding the problem (both causes and treatment) from an interdisciplinary point of view. The dynamics of the problem will be presented from a variety of theorists with emphasis on the effects of family violence on the individual, family and society. The course will address the relationship of nursing to social work, justice, and corrections in the context of domestic violence programs. Increasing personal self-awareness to the complexity of feelings and issues in family violence will be emphasized. Prerequisite: Upper-division standing in nursing.

NS 415 **2 Credits**
NURSING MANAGEMENT OF THE CHEMICALLY DEPENDENT CLIENT (2 + 0)

An in-depth study of the psychopharmocologic and sociocultural effects of chemical dependency. Students will utilize the nursing process to design strategies for the

nursing management of clients within the preventive restorative and reorganizational levels of wellness. Prerequisites: HS 317, NS 302 or RN licensure with permission of the instructor.

NS 420/HS 420 **2 Credits**
CLINICAL EDUCATION IN HEALTH CARE (2 + 0)
Emphasizes principles, methods, materials, resources in client education, examines psychosocial and cultural determinants of health behavior, explores organizational, societal and professional issues influencing client education.

NS 471 **3 Credits**
CLINICAL APPLICATIONS OF NURSING RESEARCH (3 + 0)
Critical evaluation of current nursing research and potential application of research methodology in clinical settings. Prerequisite: Permission of instructor.

NS 610 **2 Credits**
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 620 **3 Credits**
NURSING RESEARCH METHODS (3 + 0)
Principles of the research process: nursing research problem identification, literature review, development of conceptual framework, research design, sampling and data collection methods, data analysis and proposal writing are included. Enhancement of skills for evaluation of nursing research. Prerequisite: Basic statistics course.

NS 621 **3 Credits**
NURSING THEORY I (3 + 0)
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 **2 Credits**
NURSING THEORY II (2 + 0)
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 **1 Credit**
APPLICATIONS IN NURSING RESEARCH (1 + 0)
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 624 **2 Credits**
QUALITATIVE RESEARCH IN NURSING (2 + 0)
Focuses on the qualitative approach in gaining nursing knowledge. The range of topics will be broad, including case study, content analysis, participant and nonparticipant observation, open-ended interviews, document study, and an introduction to "grounded theory" methods. Students will be expected to select one method for exploration in depth. Prerequisite: Graduate standing or permission of instructor.

NS/HS 625 **2 Credits**
BIOSTATISTICS FOR HEALTH PROFESSIONALS (2 + 0)
Principles of statistical reasoning and quantitative skills for analyzing health-related 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 clinical practice and research questions are stressed. This course is designed to enhance rather than substitute for statistical knowledge gained at the undergraduate level. Prerequisite: Graduate standing or permission of instructor.

NS/HS 626 **2 Credits**
PRINCIPLES OF EPIDEMIOLOGY (2 + 0)
An introduction to the principles and methods of epidemiologic investigations and their application in the health sciences. Major topics include etiological factors of disease and injury, the distribution of health problems within populations, levels of prevention, and the concept of risk. The design of retrospective, cross-sectional, and prospective studies are examined. Clinical applications within nursing, medicine, pharmacy, social work, nutrition and health care administration are emphasized. Prerequisite: Graduate standing or permission of instructor.

NS/HS 627 **2 Credits**
INTERMEDIATE EPIDEMIOLOGY AND BIOSTATISTICS (2 + 0)
A joint continuation of NS/HS 625 and NS/HS 626, with more emphasis on analytical skills. Lectures and a series of problem sets illustrate the quantification of risk, including relative risk, odds ratio, standardized mortality ratio, life tables, and person-years. Other topics include regression and the adjustment of mortality and morbidity rates. Prerequisites: NS/HS 625 and NS/HS 626.

NS 630 **3 Credits**
CONSULTATION PROCESSES (3 + 0)
An intensive inquiry into the consultation process. Focus is on client-consultation relationships, units of change, consultative issues and problems, nature of intervention, planning, consultative strategies and evalua-

tion of the process. Prerequisite: Graduate standing and permission of instructor.

NS 632 **3 Credits**
EDUCATIONAL PROCESSES (3 + 0)

Trends and issues in nursing education are discussed in the context of influence upon the current practices and implications for the future. Curriculum construction theory precedes a classroom project in this area. Styles and strategies appropriate for teaching nursing, including maintenance of practice sites, are discussed. Throughout is an emphasis on the growth and development of learners through their participation in the learning process. Prerequisites: Graduate standing and permission of instructor.

NS 634 **3 Credits**
ADMINISTRATIVE PROCESSES (3 + 0)

Covers the elements of the health-related administrative role necessary for optimal performance, including effective leadership and management skills. Major emphasis is on personal and interpersonal competencies, maximizing resources for goal attainment and career planning. Prerequisite: Graduate standing or permission of instructor.

NS 636 **3 Credits**
FUNCTIONAL PRACTICUM (0 + 9)

Provides experiential learning in the functional role of teacher, administrator or consultant. Practicum setting and goals will be mutually agreed upon by faculty member, agency preceptor wherever an experience of academic quality can be arranged. Prerequisites: NS 630, NS 632 or NS 634.

NS 642 **3 Credits**
PROFESSIONAL NURSING IN PERSPECTIVE (3 + 0)

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 650 **3 Credits**
ADVANCED COMMUNITY HEALTH NURSING I (2 + 3)

Nursing assessment and diagnostic skills using a population-based perspective. The identification of existing and potential health problems of population groups are emphasized, including health facility catchment areas, business and industry, schools, the armed forces, plus other groups at the state, national and local level. The application and synthesis of basic public health sciences into advanced nursing practices is initiated. History, trends, and issues within community and public health nursing are reviewed. A series of field and laboratory experiences in health assessment and diagnosis will utilize various data bases, including vital statistics and community health surveys. Prerequisite: Graduate standing.

NS 651 **3 Credits**
ADVANCED COMMUNITY HEALTH NURSING II (2 + 3)

The planning and implementation of nursing interventions delivered to population groups. Primary prevention activities are stressed, including health maintenance, health promotion, and health protection. Prescriptive nursing actions will be evaluated by their documented or predictive success. Additional topics include resource allocation, organizational structure, budgetary and personal skills, program monitoring and management, and the forecasting of needs. Critiques of planning proposals and experience in program design and implementation are accomplished in field experiences. Prerequisites: NS 650, NS/HS 626, and NS/HS 625.

NS 652 **3 Credits**
ADVANCED COMMUNITY HEALTH NURSING III (2 + 3)

The evaluation of nursing and health care activities from a population perspective. Students are given opportunities to understand the scientific basis of evaluation and evaluation research as applied to nursing programs that promote, protect, and maintain public health. A series of field projects, case studies, and lectures provide experience related to cost benefit and cost effectiveness analysis, quality assurance methods, judging the efficacy of treatments, and the design of evaluation programs in community and public health nursing. Prerequisites: NS 650 and NS 651.

NS 657 **2 Credits**
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 658 **2 Credits**
PUBLIC HEALTH POLICY (2 + 0)

An analysis of the procedures by which governmental and private agencies make decisions that affect the health of population groups. The influence of lay, professional and special interest groups are explored in relation to health legislation, allocation of resources, and the setting of public health priorities. Current issues in public health policy are examined, focusing on how policy is changed, interpreted, and implemented. Prerequisite: Graduate standing or permission of instructor.

NS 660 **4 Credits**
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 661 **6 Credits**
FAMILY NURSE PRACTITIONER II (3 + 12)
Continued preparation for the Family Nurse Practitioner role. Major emphasis is on health promotion, health maintenance and management of minor, acute health problems. Client focus is across the lifespan. Content includes pathophysiologic processes, pharmacodynamics, and chemotherapeutic action of major drug groups, nutrition and health education. Prerequisite: NS 660.

NS 662 **6 Credits**
FAMILY NURSE PRACTITIONER III (3 + 12)
Continued preparation for the Family Nursing Practitioner role. Emphasis is on the initial assessment and management of complex, acute health problems with appropriate collaboration, consultation and referral and on the assessment and management techniques for individuals with chronic health problems. A variety of settings, including rural Alaska, are explored. Prerequisite: NS 661.

NS 663 **3 Credits**
FAMILY NURSE PRACTIONER—CLINICAL CONCENTRATION (4 + 160)
A post-graduate preceptored clinical concentration course for graduates who hold a 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 **3 Credits**
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: Graduate standing and permission of instructor.

NS 671 **3 Credits**
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 students opportunity to apply and test family theory and therapeutics. Prerequisites: Graduate standing and permission of instructor.

NS 672 **6 Credits**
PSYCHOSOCIAL NURSING III: COMMUNITY (3 + 9)
Current trends and approaches to the organization and delivery of mental health services are analyzed. The professional literature is critically reviewed emphasizing etiological factors, planning, and decision-making regarding mental health programs and personnel. Characteristics of the sociocultural environment are examined giving particular attention to major influence on mental health conditions. Current research findings are evaluated for purposes of assessment, planning and implementation of services for high risk, multi-cultural, and underserved populations. The role of the psychosocial nurse is analyzed and developed through clinical experience. Prerequisite: NS 671.

NS 673 **2 Credits**
FAMILY ADAPTATIONS AND HEALTH (2 + 0)
Analysis of theory and research related to biopsychosocial functioning of families. Current trends and issues in family research are examined for implications for family functioning and non-health. Impact of families on health behavior is analyzed. Prerequisite: Graduate standing or permission of instructor.

NS 675 **2 Credits**
BIOPHYSICAL PERSPECTIVES OF PSYCHOSOCIAL DISABILITIES (2 + 0)
Analysis of biophysical processes influencing psychosocial behavior in response to endogenous and exogenous stimuli. Research and theory of neuroendocrine mechanisms in psychosocial disabilities are examined. Critical analysis of nursing therapeutics and biophysical therapeutic modalities used in modification of psychosocial disabilities. Prerequisite: Graduate standing or permission of instructor.

NS 676 **2 Credits**
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.

NS
INDEPENDENT STUDY
Provides an opportunity to graduate students to study in areas of interest not taught in seminar format. Goals and purposes of the independent study are mutually agreed upon by faculty and student. Prerequisite: Graduate standing and permission of instructor.

NS 699 **1-6 Credits**
THESIS (0 + variable)
Under the guidance of the thesis advisor and in conjunction with thesis committee, student develops, refines and implements a research proposal. Prerequisite: NS 620.

Additional information concerning courses may be obtained in the College of Nursing and Health Sciences prior to registration.

FACULTY REGISTER

EMERITI

ARD, SARADELL A., Professor, Art, College of Arts and Sciences. Asbury College, B.A. '42; University of Michigan, M.A. '43; Columbia University, D.Ed. '70.

BILLAUD, JEAN-PAUL, Professor, Music, College of Arts and Sciences. Ecole Normale de Musique de Paris, Diplome Superieur de Virtuosite, '55; License de Concert, '56; International Competitions Laureate: "Viotti" (Italy), '56; Paris, '57.

CAREY, OMER L., Professor, Business Administration, School of Business and Public Affairs. Wesleyan University, B.A. '54; Indiana University, M.B.A. '60; D.B.A. '62; Harold T. Caven Professor in Business and Finance.

DOYLE, MARIE C., Professor, Psychology, College of Arts and Sciences. University of Utah, B.A. '50; Ph.D. '61.

HAINES, LEWIS E., Professor, Education, School of Education. Middlebury College, B.A. '43; Columbia Teachers College, M.A. '50; Washington State University, Ph.D. '60.

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WILSON, JAMES R., Professor, English, College of Arts and Sciences. University of Tulsa, B.A. '47; M.A. '49; University of Oklahoma, Ph.D. '53.

WOLFE, WENDELL, Professor, Education, School of Education. North Texas University, B.S. '48; Texas College of Arts and Sciences, M.S. '52; University of Texas, Ph.D. '65.

FACULTY

AGEE, GENE, Instructor, Business Administration, School of Business and Public Affairs. Colorado State University, B.S. '62.

AHLBERG, CLARK D., Interim Chancellor. University of Wichita, A.B. '39; Syracuse University, M.A. '42; Syracuse University, Ph.D. '51; Syracuse University, LL.D. '69; St. Lawrence University, D.H.L. '81.

ANGELL, JOHN E., Dean; Professor, Justice, School of Justice; Director, Justice Center. Michigan State University, B.S. '65; M.S. '67; Ph.D. '75.

ARAJI, SHARON K., Assistant Professor, Sociology (Chairperson), College of Arts and Sciences. University of Idaho, B.S.Ed. '69; M.Ed. '71; Washington State University, M.A. '74; Ph.D. '78.

ATWOOD, K. EDWARD, Associate Professor, Accounting, School of Business and Public Affairs. University of Wisconsin-Madison, B.B.A. '71; M.B.A. '72; M.S. '73; Ph.D. '83; C.P.A.

AUFRECHT, STEVEN E., Associate Professor, Public Administration, School of Business and Public Affairs. University of California at Los Angeles, B.A. '67; University of Southern California, M.P.A. '73; Ph.D. '77.

BAKER, ELISHA R., Adjunct Associate Professor, Engineering Management, School of Engineering. Clemson University, B.S. '70; Clemson University, M.S. '72; Clemson University, Ph.D. '75.

BARE, CHARLES, Assistant Professor, Mathematical Sciences, College of Arts and Sciences. Black Hills State College, B.S. '64; University of South Dakota, M.A. '68; University of Wyoming, Ph.D. '81.

BARNES, ALLAN R., Assistant Professor, Justice, School of Justice. University of Missouri-St. Louis, B.A. '69; University of Missouri-Columbia, M.A. '75; Florida State University, Ph.D. '83.

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BEAL, DAVID D., Affiliate Professor, College of Nursing and Health Sciences. University of Washington, B.S. '57; University of Chicago, M.D. '61.

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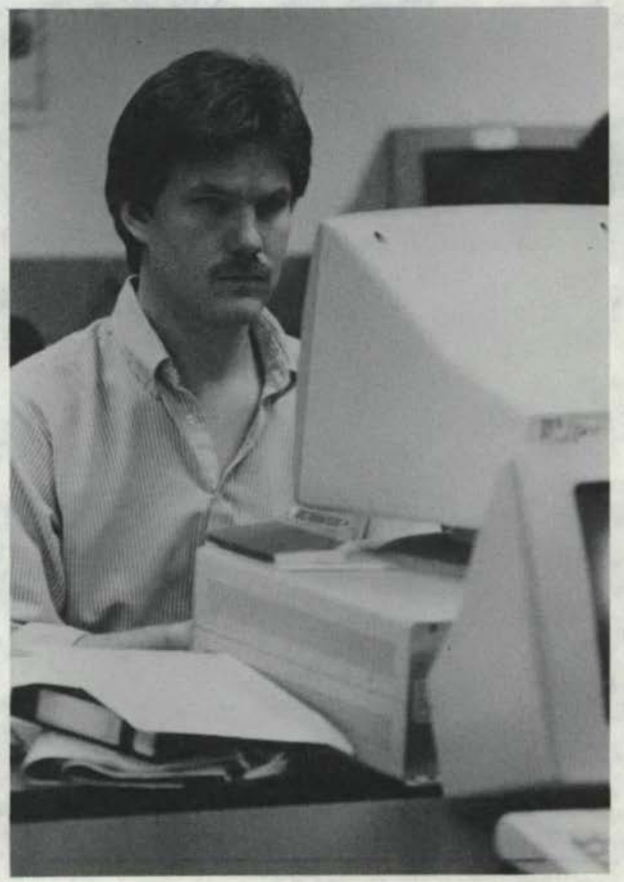

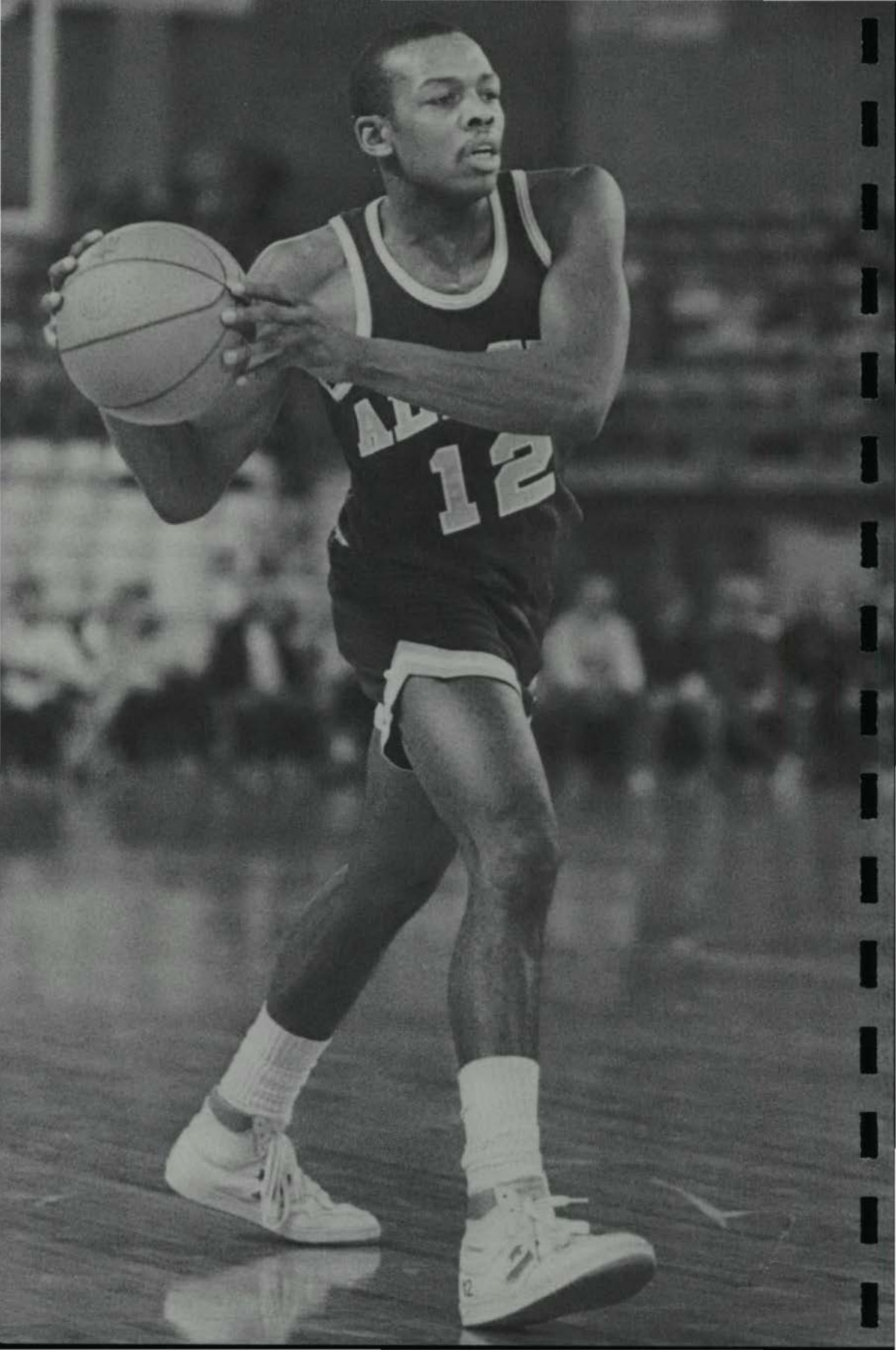
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